ENVIRONMENTAL PROTECTION

AIR, ENERGY AND MATERIALS SUSTAINABILITY

DIVISION OF CLIMATE CHANGE MITIGATION AND MONITORING

Advanced Clean Cars II Program; Low Emission Vehicles; Diesel Powered Motor Vehicles; Gasoline Powered Motor Vehicles; Model Year 2027 or Later Heavy-Duty New Engine and Vehicle Standards and Requirements; Advanced Clean Trucks Program

Adopted Amendments: N.J.A.C. 7:27-14.1, 14.3, 15.1, 15.7, 28A.11, 29.2, 29.3, 29.4, 29.5, 29.6, 29.8, 31.3, and 31.4; and 7:27A-3.10

Adopted New Rules: N.J.A.C. 7:27-29A

Proposed: August 21, 2023, at 55 N.J.R. 1773(a).

Adopted: November 1, 2023, by Shawn M. LaTourette, Commissioner, Department of Environmental Protection.

Filed: November 21, 2023, as R.2023 d.147, **without change**.

Authority: N.J.S.A. 13:1B-3.e, 13:1D-9, 26:2C-1 et seq., particularly 26:2C-37 et seq., and 48:25-1 et seq.

DEP Docket Number: 01-23-07.

Effective Date: December 18, 2023.

Operative Date: December 31, 2023.

Expiration Dates: Exempt, N.J.A.C. 7:27;

January 22, 2027, N.J.A.C. 7:27A.

This rulemaking will enable the State to continue its efforts to mitigate the impacts of climate change by reducing greenhouse gas emissions from the transportation sector, which

constitutes the largest source of climate pollution in New Jersey. Equally important, the adopted rules will reduce emissions of oxides of nitrogen (NO_x), which contribute to ozone non-attainment, and particulate matter (PM). The proposed rules will incorporate by reference California's Advanced Clean Cars II (ACC II) regulation, which will require manufacturers of passenger cars and light-duty trucks to meet an annual zero-emission vehicle (ZEV) requirement intended to increase the percentage of ZEVs sold in New Jersey that meet the new minimum technical requirements. In addition to the annual ZEV requirement, the ACC II regulation includes more stringent multi-pollutant exhaust emission standards that manufacturers of internal combustion engine passenger cars, light-duty trucks, and medium-duty vehicles must meet. The adopted rules will also clarify and update several subchapters related to motor vehicles, including: N.J.A.C. 7:27-14, Control and Prohibition of Air Pollution from Diesel-Powered Motor Vehicles, 15, Control and Prohibition of Air Pollution from Gasoline-Fueled Motor Vehicles, 28A, Model Year 2027 or Later Heavy-Duty New Engine and Vehicle Standards and Requirements, 29, Low Emission Vehicle (LEV) Program, and 31, Advanced Clean Trucks Program.

Summary of Hearing Officer's Recommendation and Agency's Response:

The Department of Environmental Protection (Department) held a virtual public hearing on this rulemaking on October 21, 2023, at 9:30 A.M., through the Department's video conferencing software, Microsoft Teams. Peg Hanna, Director of Climate Change Mitigation and Monitoring, served as hearing officer. Thirty-eight people provided oral comments at the public hearing. After reviewing the written and oral comments received during the public

comment period, the hearing officer recommended that the Department adopt the proposed rulemaking without change. The Department accepts the hearing officer's recommendations.

A record of the public hearing is available for inspection, in accordance with applicable law by contacting:

Department of Environmental Protection

Office of Legal Affairs

401 East State Street, 7th Floor

Mail Code 401-04L

PO Box 402

Trenton, New Jersey 08625-0402

This notice of adoption document can also be viewed or downloaded from the Department's website at http://www.nj.gov/dep/rules/adoptions.html.

Summary of Public Comments and Agency Responses:

The Department accepted comments on the notice of proposal through October 20, 2023. The following individuals provided timely written and/or oral comments:

1. Honorables Nilsa I. Cruz-Perez, Senator, 5th District, and James Beach, Senator, 6th District

2. Honorables Louis D. Greenwald, Assemblyman, 6th District and Pamela R. Lampitt, Assemblywoman, 6th District

3. Honorable Shama A. Haider, Assemblywoman, 37th District

4. Honorable Gordon M. Johnson, Senator 37th District

5. Honorables Joseph Lagana, Senator, 38th District, Lisa Swain, Assemblywoman, 38th District, and Chris Tully, Assemblyman, 38th District

6. Honorable Paul D. Moriarty, Assemblyman, 4th District

7. Honorables Steven V. Oroho, Senator, 24th District, F. Parker Space, Assemblyman, 24th District, and Harold J. Wirths, Assemblyman, 24th District

8. Honorable Troy Singleton, Senator, 7th District

9. Honorables Shirley K. Turner, Senator 15th District, Verlina Reynolds-Jackson, Assemblywoman, 15th District, and Anthony S. Verrelli, Assemblyman, 15th District

10. Jefferson Van Drew, Member, U.S. House of Representatives

11. Todd Abbott

12. Christopher Ainsworth

13. Eleanor Alexander

14. John Allen

15. Michael Alterman

16. Jose Alvarez

17. John Amatucci

18. Alex Ambrose, New Jersey Policy Perspective

19. William Ames

20. Froso Andronikou

21. C. Ante

22. Jospeh Anthony

23. Kenny Antoine

24. Donna Antonielo

25. Dorothy Antonow

26. Paul Antonucci

27. James Appleton, New Jersey Coalition of Automotive Retailers

28. Fernando Arias

29. Robert Armstrong

30. John Arout

31. Peter Arts

32. Matthew Asman

33. Sharon Asman

34. Daniel Astle

35. Phillipe Aubry

36. Kevin Aughtry

37. Diane Baker

38. John Bald

39. Andrew Balsys

40. Yvonne Barash

41. Michael Barbieri

42. Eric Bardach

43. Anthony Bariana

44. Daniel Barlette

45. Ranjit Barot

46. Robert Bartley

47. Nader Basta

48. Douglas Baumann

49. John Bean

50. Barbara Bear

51. Gary Bear

52. Joseph Becker

53. Alex Beda

54. Markian Bek

55. Ariel Bello

56. Bi Bennett

57. Jennifer Bennett

58. Bill Beren

59. Edward Bergan

60. Judy Bernard

61. Dominic Bertoldi

62. Julia Bialoglowa

63. Robert Bieth

64. Lorraine Biniek

65. Pamela Birbach

66. Gregory Biunno

67. Stephen Black

68. Heather Blehl

69. Dennis Block

70. Eric Blomgren, New Jersey Gasoline Convenient Store Automotive Association

71. Marc Blumberg

72. Kevin Blythe

73. David Bocchino

74. Leslie Bockol, New Jersey Working Families Alliance

75. Raymond Bogan

76. Amber Borkan

77. Fgordon Borteck

78. Danielle Boyer

79. Thomas Boylan and Albert Gore, Zero Emission Transportation Association

80. Nancy Brady

81. Frank Breakell

82. Nosson Breskin

83. Corrine Brickner

84. John Brickner

85. Uchenna Bright, Environmental Entrepreneurs

86. Karoline Brilliante

87. Tracey Brink

88. Lorraine Brong

89. Karen Brown

90. Marc Bruggemann

91. Ian Brundage

92. Vincent Buonanno

93. Brian Burger

94. Richard Burgess

95. Christopher Burgos

96. Sean Burke

97. Susan Burton

98. John Burzichelli, former New Jersey Assemblyman

99. Vincent Busardo

100. Peter Busch

101. Kenneth Bustard

102. Jim Butler

103. Mike Butler, Consumer Energy Alliance

104. Eric Butto

105. Olga Bychkowski

106. Annette Caamano

107. Jennie Cadet

108. Linda Caffrey

109. Andrea Caggiano

110. Michael Calorel

111. Penelope Campbell

112. Denise Canell

113. Ray Cantor, New Jersey Business and industry Association

114. Sueann Capela

115. Matthew Capella

116. Ronald Capik

117. Levin Carber

118. Stephen Carrellas, National Motorists Association, NJ Chapter

119. James Casas

120. Candice Cassella

121. Frank Catalano

122. Dennis Cataldo

123. Jacqalene Catrino

124. Michael Cavanaugh

125. Bob Cento

126. Centrist Democrats of America

127. Elizabeth Cerceo, American College of Physicians, New Jersey

128. Robert Checchio

129. Daniel Cheesman

130. Catherine Chen

131. Janis Chilton

132. Nicholas Chimienti

133. Ralph Cicirelli

134. David Clark

135. Michael Claudy

136. Tammy Clermont

137. Mitchell Cohen

138. Rhonda Cohen

139. James Coleman

140. Patricia Conlon

141. Timothy Connery

142. Alexis Convissar

143. Gerald Cook

144. Richard Copeland

145. Jesus Cortes

146. Thomas Cosgrove

147. Jose Coss

148. Janeen Coughlin

149. Lateefa Covington

150. Thomas Cox

151. Debra Coyle, New Jersey Work Environment Council

152. Rodney Crable

153. Jean Creidi

154. Lauren Cremins

155. Thomas Cumello

156. John Cunningham

157. Nancy Cunningham

158. Michael Currie

159. Christina Curry

160. Rosanne Curry

161. Petra Cusato

162. Ilene Cutroneo

163. Thomas D'Angelo

164. Denis Dankosky

165. Polly Deal

166. Steven DeCredico

167. Joseph DeFlora, American Fuel and Petrochemical Manufacturers Association

168. Eric DeGesero, Fuel Merchants Association of New Jersey

169. William Deile

170. Andrew DeMaio

171. Roman Dementiuk

172. Romanno DeSantis

173. Steve Devlin

174. Clelia Di Tacchio

175. Alan Dibella

176. Peter DiEgidio

177. Donald Dienst

178. Jason Dietz

179. Anthony DiGerolamo

180. Brandylee Dignall

181. Lisa DiLeo

182. James Dilks

183. Michael DiMartino

184. Judy Dodson

185. James Donnelly

186. Raymond Donovan

187. Zachary Dooley

188. David Dougherty

189. Mark Doughty

190. Adam Drewry

191. Rachit Dubey

192. Joshua Dubnick

193. Steven Dudish

194. Megan Duffy

195. Thomas Duncan

196. James Dunn

197. Robert Dvorsky

198. Patrick Dwyer

199. Robert Eagan

200. Terrance Egan

201. Nick Egelhoff, Ceres

202. Michael Egenton, New Jersey State Chamber of Commerce

203. Jeffrey Eichinger

204. Aneel Eijaz

205. Brian Eitner

206. Thomas Elder

207. Leslie Elero

208. David Epstein

209. Leon Erdner

210. George Ernst

211. Brian Estes

212. Michelle Evans

213. Zack Fabish, Sierra Club

214. Lisa Fabrizio

215. Sal Fama

216. Justin Farrell

217. Melissa Farrell

218. Jeremy Fellgraff

219. Edmond Fernand

220. Therese Fibraio

221. Jeffrey Finger

222. Robert Fiore

223. Michael Fitzsimmons

224. Brett Florance

225. Melissa Flynn

226. Craig Fogel

227. Mary Jo Foley-Birrenkott, Rural and Agricultural Council of America

228. Arthur Ford

229. Marybeth Ford

230. Sara Forni, Corporate Electric Vehicle Alliance

231. Paul Foster

232. Robert Frahm

233. Ron Francis

234. Pam Frank, ChargEVC

235. Anthony Franzonia

236. Paul Freisinger

237. George Freshcoln

238. Kirk Frost

239. Paul Fuller

240. Susan Fuller

241. Peter Furey, New Jersey Farm Bureau

242. Frank G.

243. Glen G.

244. P.G.

245. John Gaeta

246. Keith Gallaudet

247. Lisa Garbarino

248. Kevin Garrity

249. Nicholas Gaura

250. Annmarie Gerhardt

251. Michael Giaimo, American Petroleum Institute

252. Vincent Giampeitro

253. Michael Giannone

254. Carrie Giordano

255. Michael Giordano

256. Noemi Giszpenc

257. Jim Glass

258. Suzan Globus

259. Christine Goeller

260. Fred Goerlitz

261. Frederick Goerlitz

262. Mike Gogel

263. Richard Going

264. Graham Goldman

265. Amy Goldsmith, Clean Water Action

266. Jacob Goldsmith

267. Pedro Gonzalez

268. Charles Goodyear

269. Daniel Gorby

270. Peter Gordinier

271. David Gottlieb

272. Daniel Gould

273. Chris Grech

274. Jacqueline Greco

275. Richard Green

276. Vincent Green

277. Nancy Griffeth, Unitarian Universalist FaithAction NJ

278. Fran Griffin

279. Michele Griffin

280. Calum Groover

281. Jane Grothusen

282. George Grow

283. Craig Grunke

284. Daniel Hagerty

285. Tim Hagerty

286. Kim Haines

287. Dan Hall

288. Justin Halwagy

289. Steven Hannah

290. Billie Harris

291. Kathy Harris, Natural Resources Defense Council

292. Kathy Harris, on behalf of the Natural Resources Defense Council, the Sierra Club, Environment New Jersey, GreenLatinos, Tri-State Transportation Campaign, New Jersey League of Conservation Voters, New Jersey Sustainable Business Council, E2 (Environmental Entrepreneurs), Public Citizen, Ceres, and the Environmental Defense Fund

293. Patrick Haynes, Tenneco

294. Michael Headman

295. Michael Heck

296. Brian Heise

297. Harold Heller

298. William Heller

299. M. Hemeleski

300. Laura Hemenway

301. Warren Hemple

302. Patricia Hemsworth

303. Donna Hermann

304. Lee Herrick

305. Dave Herrmann

306. Emily Hess

307. Christopher Hidalgo

308. Bryan Hoedt

309. Robert Hoffman

310. Jeannine Hogan

311. MaryAnn Hogan, Thai Industrial Standards Institute

312. Kyle Holder, Cherry Hill Dodge

313. Barbara Horn

314. Emerald Hornig

315. David Horoff

316. Christine Howell

317. Robert Huizer

318. Ihor Huk

319. Dawn Hunter, Greater Vineland Chamber of Commerce

320. Geoff Hutchinson

321. James Hutchinson

322. Andrew Hutnikoff

323. Vanilla Ice

324. Gabriel Ioan

325. Robert Iracane

326. Judy Irwin

327. Ryan Irwin

328. Laurie Jackson

329. Stanislav Jaracz, New Jersey Electric Vehicle Association

330. Ben Jealous, Sierra Club

331. Dan Johnson

332. Anne Johnston

333. Anthony Joseph

334. Katherine Joyce

335. Verne Joyce

336. Lee K.

337. Leeba K.

338. Jeffrey Kaden

339. Zack Kahn, Tesla

340. Ivan Kaltman

341. Mendel Kaplan

342. Michael Karlovich and Mark Lucey, PBF Energy

343. Lynn Katz

344. Andrew Kavulich

345. Michael Kelly

346. James Kennedy

347. Darlene Kenney

348. Theresa Keogh

349. Stephen Kertesz

350. Thomas Kesolitis

351. Jessica Keyes

352. Maryann Keyes

353. Brian Kiesche

354. John King

355. Laszlo Kiss

356. Raymond Klas

357. Jamie Klenetsky Fay

358. Joan Klinger

359. Alex Kloman

360. Jack Kocsis, Associated Construction Contractors New Jersey

361. Renee Kohut

362. David Korfhage

363. John Korolow

364. Demetrios Koukounas

365. Vanessa Koutla

366. David Kruczek

367. Brian Krzywicki

368. Andrew Kvarta

369. Calvin Kwan

370. Matthew Labella

371. Jason LaGuardia

372. Lauren Lamastra

373. Matt Larkin, Compliance and Research Services

374. Robert Laurino

375. Robert Lawrence

376. Richard Lawton, New Jersey Sustainable Business Council

377. Richard Lawton and Alli Gold Roberts, New Jersey Sustainable Business Council and Ceres

378. James Layton

379. Ronald Leach

380. Annabelle Lee

381. David Lee

382. Erin Lee

383. David Leeds

384. Jacqalene Lentz

385. Christopher Leone

386. Peter Lepp

387. Jonathan Lesser, Affordable Energy for New Jersey

388. Eric Levy

389. Joe Lewin

390. Albert Lewis

391. Alex Liberman

392. Andy Lin

393. Gail Lindstrom

394. Brian Lipman, New Jersey Division of Rate Counsel

395. Christine Livesay

396. Sylvia Lock

397. Brian Logan

398. Shannon Logar

399. Mark Longo, International Union of Operating Engineers Local 825

400. Isabel Lopez

401. Birger Luecht

402. Dominique Lueckenhoff, Hugo Neu Corporation

403. John Lurch

404. Carrie Lurilli

405. Kenneth Lutin

406. Jo Lynch

407. Joann Lyncj

408. Gregory Machak

409. Shaan Machchhar

410. Patti Maddamma

411. Susan Madison

412. Charles Magee

413. Kim Magliocchetti

414. Eileen Maglione

415. John Maguire

416. Marianne Maher

417. Andrew Mai

418. Cat Mailander

419. Joseph Maio

420. Gregory Maizous

421. Arlene Majette

422. Lori Malvey

423. Alexander Marcus

424. Andrea Marpillero-Colomina, Green Latinos

425. Michelle Martin

426. Pam Martin

427. Tom-Allan Masch

428. Gregory Mashas

429. Paul Matar

430. Wally Matei

431. George Mathis

432. Ernest Mattei

433. Tracey Matthews

434. Theresa Mazza

435. Pete McCarthy

436. Maryanne McCue

437. Melanie McDermott

438. Mary McGuire

439. Elizabeth McLoone

440. Michael McSweeny

441. Gregory Meehan

442. John Meiler

443. Kelsey Meiler

444. Angel Mendez

445. Michele Menser

446. Glen Meny

447. Lisa Menzel

448. Diane Meo

449. Michael Mercado

450. Jennifer Messina

451. Biana Mester

452. George Meyer

453. John Michalik

454. Chris Michaud

455. Antor Miha

456. Brad Miller

457. John Miller

457-1. Tom Miller, Alliance for Automotive Innovation

458. Stephen Minnisale

459. Sean Mohen, Tri-County Sustainability

460. Ted Mojka

461. Isabel Molina, on behalf of herself and approximately 510 additional individuals

462. Isabel Molina, New Jersey LCV

463. Chris Molnar

464. Nicholas Moltzen

465. Donald Monetti

466. John Moore

467. Rita Moore

468. Andrew Morgan

469. Robert Morris

470. Michael Morrisey

471. Moshe Moskowitz

472. Fred Mossbrucker

473. Michael Mroz

474. Robert Mulhern

475. Peter Mullen

476. Robert Munoz

477. Kimberley Murray

478. Frank Mytfast

479. James Nalepa

480. Gerry Nass

481. Ramanan Natarajan

482. Pamela Nicholson

483. Salvatore Nicosia

484. John Niles

485. Patricia Nistorenko

486. Christopher Norman

487. Michael Nothofer

488. Simon Nwachukwu

489. Marge O'Brien

490. Basil O'Connor

491. John Ogle

492. Ken Ohern

493. Doug O'Malley, Environment NJ

494. Doug O'Malley, on behalf of 54 organizations

495. Elizabeth Oravetz

496. Mark Oryzysn

497. Tiffany Otai

498. Alberto Pacheco

499. Dennis Palmer

500. Brian Parsons

501. Linda Pascarella

502. James Pasquariello

503. Carmella Passaro

504. Fin Patel

505. Guarav Patel

506. Kelly Patterson

507. Ken Peabody

508. Spencer Peck

509. James Peidl

510. John Pereira

511. Omary Perez

512. John Perrotta

513. William Peterson

514. Denise Petronella

515. David Petry

516. Alison Picerno

517. David Pickens

518. Anthony Pilawski

519. Kenneth Plunkett

520. Jerry Porreca

521. Marilyn Portenza

522. Neil Post

523. Miles Powell

524. Martin Presinzano

525. Emilio Prestamo

526. Timothy Price

527. Ryan Principato

528. Michael Proto

529. Jean Publiee

530. David Purcell

531. Andrew Puzycki

532. Geoff Raicer

533. Brian Rak

534. Anjuli Ramos, Sierra Club, New Jersey Chapter

535. Anjuli Ramos-Busot, New Jersey Sierra Club submitted a petition signed by 925 New Jersey residents

536. Jaydeep Rana

537. Nicole Randall

538. Nancy Rawley

539. Patricia Ray

540. Patti Ray

541. Jen Raymond

542. Stephen Raymond

543. Anthony Reale

544. Thomas Rebele

545. Sharon Reed

546. John Reichenberger

547. Darrell Reilly

548. Trish Reilly, Centrist Democrats of America

549. Gerald Reiner

550. Jill Reit

551. Joanne Rejevich

552. Serafim Reppas

553. Ken Revolinsky

554. Ben Rich

555. Chris Richards

556. Steven Richman

557. Nicholas Riess

558. Sarah Ritter-Chung

559. Denise Robbins

560. Pamela Roberts

561. Charles Robinson

562. Michael Roche

563. Robert Roesch

564. Jeffrey Roscoe

565. Samuel Ross

566. Elizabeth Roztoczynski

567. Paul Ruffin

568. Sean Runyon

569. Dave Russo

570. Sarah S.

571. Adam Saad

572. Nancy Sadlon

573. Tracy Saltarelli

574. Andrew Sangataldo

575. Brian Sangataldo

576. Christa Sangataldo

577. Jo-Ann Sangataldo

578. Maureen Santonastaso

579. Louisa Sargent

580. Gregory Scarpino

581. Karen Scheideler

582. Frank Schiavone

583. Mike Schiavone

584. Ira Schlusselfeld

585. Robert Schober

586. Bruno Schreiber

587. Andrew Schwartz

588. Ml Schwartz

589. Louis Seiden

590. Michael Seilback, American Lung Association

591. David Semah

592. Margaret Seme

593. Gail Serdiuk

594. Kevin Sferra

595. Amy Sharkey

596. Dan Sharkey

597. Herb Sharp

598. Ryan Shea

599. Mark Shelly

600. Sam Shenenberger

601. Joseph Shepherd

602. Elizabeth Shimwell

603. Amy Shnider

604. Stephen Sibilia

605. Lisa Siemanowicz

606. Robert Sienrukos

607. Yosef Siff

608. Walt Simon

609. Ron Singer

610. David Skibinski

611. Holly Smith

612. Joyce Smith

613. Keith Smith

614. Michaela Smith

615. Scott Smith

616. Steven Smith

617. Tracy Smith

618. Walter Smith

619. Diane Snelson

620. Brian Sosa

621. Janet Sosely

622. Tommy Souren

623. Michelle Spencer

624. Curtis Springstead

625. Adam Springsteel

626. Stephen Sromovsky

627. Paul Stangas

628. Mary Stange

629. Rebecca Stanislaw

630. Richard Stanislaw

631. Michael Stanton

632. Sharon Starke

633. Frank Starosciak

634. Michael Staub

635. Stephanie Stavrianos

636.Marian Steinfeld

637. Ronald Steinhart

638. Brian Stevens

639. Alison Stidworthy

640. Lucas Stock

641. Robert Stone

642. Christine Storar

643. Andrea Streaman

644. Kerri Sullivan

645. Scott Sullivan

646. Bob Sully

647. Donald Susanen, Phillips 66 Company

648. Nancy Swift

649. Edward Szubski

650. Loren Talbot

651. Michael Taylor, NAFA – The Fleet Management Association

652. Dominick Tedesco

653. Charles Thomas

654. Anita Thompson

655. Mary Ann Timko

656. Russell Todaro

657. Drew Tompkins, Jersey Renews Coalition

658. James Tosone

659. Alison Tribus

660. Asher Tribus

661. Michael Trocchia

662. Howard Trout

663. Nancy Troy

664. Steve Trynosky

665. Louis Tulini

666. C.V.

667. Sanjay Vadapalli

668. Christine Valente

669. Richard Valentine

670. Guy Vanderhoof

671. Tom Van Heeke, Rivian

672. Robert Vannozzi

673. Melanie Vasa

674. Oscar Velez

675. Dana Veronica

676. Daniel Vicente, UAW Region 9

677. Deborah Villarreal-Hadley

678. Frank Visone

679. Anne Viviani

680. Sharleen van Vlijmen, Clinicians for Climate Action New Jersey

681. John Vogel

682. Linda Von Bulow

683. Edward Von Der Linde

684. Martin Vongrej

685. Kristine Waldren, ECOS

686. Sandy Walton

687. Linda Wancho

688. Ellen Webner

689. Amy Weed

690. Kimi Wei

691. Nathan Weiss

692. Chad Wells

693. Roy Wells

694. Stephen Wells

695. Willis Wells

696. Neil Wendt

697. John West

698. Lauren Wheeler

699. Patrick Whipp

700. Elizabeth White

701. Janet White

702. Kelly Whitfield

703. Deegan Williams

704. George Williams

705. MaryAnn Williams

706. Raymond Wilmott

707. Michael Wilson

708. Rachel Winiecki

709. Angela Wise

710. Brian Wisner

711. Matthew Wittman

712. James Wolverton

713. Tim Wong

714. Jeremy Workman

715. Chris Wramage

716. Kathleen Wright

717. Tracy Wright

718. Wayne Wright

719. Jackie Yeager, Cummins Inc.

720. Lewis Yetter

721. Patrice Yodice

722. Samantha York

723. Joseph Yost

724. Anas Younes

725. J. Zalkalns

726. Arthur Zayat

727. Ariel Zeitlin

728. Stanley Zimmerman

729. Slawomir Zolnierowski

730. William Zorzanello

General Support

1. COMMENT: The Department should adopt California's ACC II regulation. The commenters detailed a number of reasons including, but not limited to, the need to improve air quality, address climate change, and end fossil-fuel reliance. (18, 72, 74, 108, 151, 156, 174, 191, 224, 238, 244, 256, 258, 262, 265, 277, 288, 293, 325, 334, 339, 355, 357, 362, 382, 435, 459, 489, 497, 533, 554, 567, 650, 659, 660, 673, 671, 677, 696, 700, 711, and 727)

RESPONSE: The Department acknowledges the commenters' support of the adopted rules.

Support Adoption By The End Of The Year

2. COMMENT: The Department should adopt the Advanced Clean Cars II (ACC II) standards before the end of the year so the State may enter the program in vehicle model year 2027. (74, 130, 234, 265, 291, 292, 329, 330, 339, 377, 402, 462, 494, 535, 657, 671, and 680)

3. COMMENT: The failure to adopt ACC II in 2023 would mean that by 2030, there will be more than 90,500 fewer zero emission vehicles (ZEVs) on New Jersey's roads. Delaying adoption would deprive residents of the ZEVs they would otherwise be able to acquire, reduce more consumer options and the many important co-benefits ACC II provides, including improved health, air quality, climate safety, and financial savings. Furthermore, since the majority of New Jerseyans – particularly low-income drivers – purchase used vehicles, a delay in the rulemaking means there would be fewer clean, affordable vehicles available for drivers in the secondary market. (329 and 494)

4. COMMENT: Air pollution is deadly. Pollution from the burning of fossil fuels is responsible for nearly one in every five deaths worldwide. Of the 15 New Jersey counties that reported air quality data to the American Lung Association, nine received a grade of C or below due to excessive ozone. Adopting ACC II in New Jersey this year would significantly reduce air pollutants below 2021 levels by 2035. Levels of light duty emissions would result in a 72 percent reduction of carbon dioxide (CO_2), an 80 percent reduction in nitrogen oxides (NO_x), 72 percent reduction of fine particulate matter (PM2.5), and a 73 percent reduction of sulfur dioxide (SO_2). Delaying the adoption of the rulemaking means missing another model year and postponing how long it will take to improve the health of New Jerseyans. New Jersey should not be left behind other states. The adoption of clean transportation is a priority and this rulemaking must be implemented this year. (680)

5. COMMENT: The Department should immediately adopt and implement the proposed ACC II rules as a critical part of a series of policies and actions to improve the health of New Jersey residents and to address the current and future climate crisis. Delay of this rulemaking and delay

of widespread adoption of ZEVs in New Jersey will hurt the health and daily functions of people, living beings, and natural systems. (277)

6. COMMENT: Failure to adopt the ACC II regulations by the end of 2023 could mean that drivers will not have as much access to electric vehicles (EVs) in the New Jersey market and will have to travel to neighboring states to purchase the EVs, which could reduce vehicle sales in the State. To keep EV sales in New Jersey and meet the growing demand for these vehicles, the State must adopt the regulations by December 2023. (234)

7. COMMENT: New Jersey is one of the only clean cars states in the region that has not joined the ACC II program. Other states in the region, including New York, Connecticut, Massachusetts, Rhode Island, Maine, Maryland, Virginia, and Vermont, and the District of Columbia, have finalized or are on the path to finalization of ACC II this year. Washington, Oregon, and California adopted ACC II in 2022. New Jersey needs to catch up by adopting ACC II by the end of this year, so that the State does not miss another vehicle model year. (461)

8. COMMENT: Please make the conversion to ZEV vehicles sooner and more aggressive. (238)

9. COMMENT: The Department should adopt the rules within the 2023 calendar year. This is vital not only to provide critical relief to New Jerseyans suffering daily from dirty air and the health impacts caused by transportation pollution, but also for the State to meet its climate (greenhouse gas emissions reduction) goals. Disturbingly, the State's transportation emissions have been increasing since 2020, the wrong trend for the largest sector (35 percent) of the greenhouse gas emissions in the State. The burdens of the resulting pollution are unequally borne, making this an urgent environmental justice issue as well. By adopting the ACC II

program, New Jersey can make deep cuts in harmful tailpipe pollution that will save lives and make our households, businesses, and economy less dependent on dirty, volatile, and costly gasoline that damages our climate. (437)

10. COMMENT: The Department is urged to adopt ACC II in 2023 to maximize the economic benefits during the transition to a clean economy. As the State looks to maximize the wide-ranging economic benefits of ACC II, it is essential to act now and move towards adoption before missing another compliance year. There will be people who say, "slow down, wait," but the State has nothing to gain from dragging its feet. The time to act is now. By adopting the standard this year, New Jersey residents will breathe easier, have more options for fighting the climate crisis, and will be given the potential choice of beginning to save money by avoiding the ever-rising, ever-volatile high price of gasoline, which gas-powered cars rely on. Also, the State can do this all while supporting in-State economic growth. If New Jersey adopts the rules this year, ACC II will ensure an increasing number of ZEVs will be available for sale to New Jersey consumers starting with model year 2027. (85)

11. COMMENT: Adopting ACC II in 2023 is critical for the State to achieve its goal of cutting climate pollutants by 50 percent by 2030, to keep up with nearly every other Section 177 state (states that, in accordance with section 177 of the Federal Clean Air Act, adopt the California motor vehicle standards – referred to as "177 states," or "Section 177 states") and ensure that New Jersey does not lose another model year as part of this program. This is a critical moment for New Jersey to join other Section 177 states in moving towards a clean transportation future and ensure that the State can access the full range of economic and public health benefits of the transition. (685)

12. COMMENT: Electric vehicles have reached an inflection point and it is imperative that New Jersey join these other leading clean car states and adopt these standards by the end of this calendar year to ensure that more electric vehicles are available. (493)

13. COMMENT: Adopting the ACC II standards this year will help provide critical relief to New Jerseyans suffering daily from dirty air and health impacts caused by transportation pollution. Cars, trucks, and buses are a primary source of the State's most dangerous air pollutants, impacting our health and environment. On a daily basis, residents are breathing in dangerous amounts of tailpipe pollution, including nearly two million Latino people, high numbers of whom are situated near the New Jersey Turnpike, Parkway, and other major transportation hubs. For too long, communities of color, in particular, have been overburdened with exposure to tailpipe pollution, which can cause or worsen lung disease, asthma, and even cancer. In particular, the New York, Newark metropolitan area currently ranks 12th highest for ozone days in the country. Counties like Bergen, Mercer, Camden, and Middlesex were graded with F and D for high ozone days. By adopting the ACC II program, the State can make deep cuts in harmful transportation pollution that will save lives and make households, businesses, and the economy less dependent on dirty, volatile, and costly gasoline that damages the climate. (424)

14. COMMENT: New Jersey needs to catch up to neighboring states and kick start its just transition to accessible clean transportation. For manufacturers to prioritize New Jersey when providing ZEVs for sale, New Jersey must adopt ACC II by the end of 2023, or it will miss another model year. The faster new ZEVs are introduced on the road, the faster they will enter the used vehicle market making them more affordable and accessible to all New Jerseyans. Every day implementation is delayed, more New Jerseyans will feel the impact of poor air

quality and climate change. Public and environmental health depend on a cleaner transportation sector. (534)

RESPONSE TO COMMENTS 2 THROUGH 14: The Department acknowledges the commenters' support of the rulemaking. The Department is required, pursuant to the Clean Air Act (CAA), 42 U.S.C. §§ 7401 et seq., to provide a two-year lead time before implementing a California emission standard. Therefore, the Department is adopting the rulemaking in order that the rules are in place in New Jersey for model year 2027.

General Opposition

15. COMMENT: The Department should not adopt the proposed rules. (16, 19, 42, 54, 60, 87, 113, 119, 123, 161, 172, 175, 179, 189, 217, 220, 283, 303, 306, 319, 338, 354, 358, 364, 375, 410, 414, 470, 472, 480, 486, 491, 521, 522, 547, 585, 602, 655, 666, 706, and 729)

RESPONSE: The adopted rules are a continuation of the Department's efforts to mitigate the impacts of climate change by reducing greenhouse gas emissions and reductions in pollutants, such as NO_x emissions (which are a precursor of ground-level ozone), as well as PM2.5. Emissions from the transportation sector constitute the largest source of greenhouse gas emissions in the State. On-road gasoline-powered passenger vehicles and light-duty trucks, such as pickup trucks and sport utility vehicles (SUVs), are the largest share of transportation sector emissions. By increasing the sale of ZEVs that meet the minimum technical requirements and the stringency of the multi-pollutant exhaust emission standards, the rules will reduce emissions of CO_2 and air pollutants, such as NO_x and PM2.5 from the transportation sector. As explained in the notice of proposal Summary and Social Impact statements, by decarbonizing light-duty

vehicles, the Department anticipates that the rulemaking will have a positive social impact on the State's residents. See, for example, 55 N.J.R. at 1773, 1780-81. By reducing emissions from mobile source fossil fuel combustion, the Department expects to reduce greenhouse gas emissions, criteria pollutants, and air toxics such as formaldehyde and benzene, which will have public health benefits, protect water and air quality, and safeguard ecosystems in the State. *Id*. See also the Response to Comments 198 through 214.

Alternative Strategies and Technologies

16. COMMENT: Just three percent of New Jersey voters (based on polling) say limiting the number of gas vehicles sold in the State is the best approach to encouraging more EV usage, and only three percent of New Jersey voters say more funding or increasing the number of electric vehicles should be the top funding priority. (126 and 548)

17. COMMENT: It is not reasonable for the Department to force people to buy electric vehicles when there are better strategies to address environmental concerns. (50, 92, 100, 102, 138, 155, 196, 310, 343, 368, 518, 581, and 704)

18. COMMENT: The Department should not ban fossil fuel vehicles without alternatives better than battery electric vehicles. (134, 205, 347, 484, 625, 662, and 720)

19. COMMENT: The technology needs to develop further before the rules are adopted. Solid state batteries in a vehicle do not yet exist. (55, 134, 204, 324, and 625)

20. COMMENT: With only one technology option and one charging method, the rules are overly ambitious. (134)

21. COMMENT: Embracing a combination of technologies is essential for propelling society forward, both metaphorically and literally. It is imperative that the government refrains from prematurely favoring a single winner, such as battery electric vehicles (BEVs), given the significant challenges of mile-zero BEV, CO_2, and the potential far-reaching consequences of killing off the entire combustion engine supply chain. The rush to exclusively adopt BEVs by 2035 is hasty and unsustainable, primarily due to concerns related to energy density and battery chemistry. These issues give rise to costliness and impracticality that are unlikely to be fully resolved in an economically viable and non-discriminatory manner. (532)

22. COMMENT: A one-size-fits-all approach from California does not, in fact, fit the needs of New Jerseyans. The Department and this Administration should consider other ways to reach its emissions reductions goals without disproportionately affecting the State's rural residents and the food and agriculture industry, which is the third largest economic driver in the State. (227)

23. COMMENT: The Department is encouraged to ensure that the rules have adequate flexibility to ensure that fleets will continue to have access to the vehicles they need to perform the myriad of public and private sector services that New Jersey citizens rely upon. (651)

24. COMMENT: Converting fossil fuels into electricity, then storing that electricity in vehicle batteries is a highly inefficient process. (21)

25. COMMENT: The rules are premature and do not consider new technologies that improve the performance and emissions of gasoline engines and gasoline-fueled automobiles. (178)

26. COMMENT: A mix of gas, electric, and hybrid is fine, but to ban an entire industry is crazy. (469)

27. COMMENT: The Department should not ban internal combustion engine (ICE) vehicles when environmental issues could be addressed through greater efficiency. Some commenters cite specific examples, such as requiring ICE vehicles to attain greater mileage, improving emission reductions, regular emission testing, and/or requiring hybrid engines. (22, 29, 56, 83, 138, 145, 155, 167, 204, 206, 208, 301, 309, 333, 336, 363, 385, 389, 438, 522, 529, 543, 579, 625, 664, 722, and 720)

28. COMMENT: The Department should not mandate electric vehicles at this time when there are other technologies available and emerging technologies that could address environmental issues. Some examples cited include developments in hydrogen, synthetic fuels, alternative fuels, as well as increased efficiency of internal combustion engines. (22, 28, 75, 77, 83, 110, 195, 285, 259, 167, 186, 196, 197, 267, 333, 350, 524, 530, 543, 613, 669, 674, and 683)

29. COMMENT: Thanks to significant investments in natural gas infrastructure and continued advancement in internal combustion engine technology, the Environmental Protection Agency's (EPA) own data show that New Jersey, alone, has reduced its total greenhouse gas emissions by 32 percent between 2005 and 2020. Clearly these proven technological advancements are working. (399)

30. COMMENT: As the Department considers options to reduce transportation emissions, the Department should consider whether there are less expensive and more efficient ways to reduce carbon emissions. The free market has a proven track record of demonstrating that competition can achieve policy objectives and effectuate advanced technology at a reduced cost to the consumer. New Jersey should support policies that allow all technologies to compete, including efficient gasoline and diesel vehicles operating with conventional and lower carbon intensity

fuels, battery electric vehicles, hybrid electric vehicles, hydrogen fuel cell vehicles, and hydrogen internal combustion engine vehicles. Technology-neutral policies create the most efficient and effective opportunities to reduce greenhouse gas emissions in the transportation sector for new vehicles, as well as in the existing vehicle fleet. By pursuing a ZEV mandate program like ACC II and ignoring other technologies, New Jersey will be missing a significant opportunity to reduce greenhouse gas emissions from vehicles in the existing fleet and from those ICE vehicles that will continue to be sold in the future. The Department should consider if the ACC II rule is a realistic approach to mandate this technology and the downsides of focusing on one technology. (251)

31. COMMENT: This ban could threaten investment in cost-effective future low carbon or zero carbon energy solutions including hydrogen because sales of traditional fuels partially fund such efforts. (342)

32. COMMENT: New Jersey has the tools and resources to reduce emissions without heavy-handed government mandates. There are many other safe, proven methods of reducing carbon emissions from industrial facilities, like carbon capture and storage, that would protect workers and preserve existing businesses if widely implemented. Additionally, there are affordable and currently available transportation alternatives like compressed natural gas (CNG), propane auto-gas, renewable diesel, and hybrid cars. Hydrogen vehicles are also in development. (14)

33. COMMENT: The Department should adopt the rules and should also support other transportation technologies and their infrastructure, such as compressed air-powered vehicles. (690)

34. COMMENT: The transition of vehicles (all classification types) to zero emissions needs to start with targets in 2024 with a 100 percent transition target by 2040. This is achievable, but it requires the Department to work with the New Jersey Board of Public Utilities (BPU) and other agencies in developing substantial incentive packages that engage all vehicle owners. Additionally, it also requires creating incentives for home and business renewable hydrogen self-contained solution installations. There are currently two companies offering home and business turnkey solutions. Hydrogen fuel cell vehicles offer features and capabilities that eliminate the constraints of BEV vehicles. New Jersey needs to build incentives so that homeowners and es and hydrogen electric storage for all residents and businesses that have the land to install. New Jersey must break away from the fossil fuel model of central mining and transmission to distribution. This fossil fuel model emits millions of tons of methane that is not currently reported, nor measured, by owners and the Department. The distributed model is much more efficient, has substantially less environmental impact, and rapidly increases availability of hydrogen to New Jersey residents and businesses. (238)

35. COMMENT: It is important to address climate change, but the rules should allow for alternative cleaner automobile technologies, like hydrogen or cleaner ICE vehicles. (490)

36. COMMENT: While the rules would allow for hydrogen vehicles to qualify as zero emission vehicles, the timeframes for implementing the rules and eliminating new ICE vehicles could squeeze out competing technologies. This rulemaking freezes ZEV technology to what can be achieved today, rather than allowing technology to advance. There is only so much money to invest in technological development, infrastructure, and equipment. Once the commitment is made to eliminate ICE vehicles in a little over a decade, the Department will have locked in EVs

as the only choice for New Jersey. This is not beneficial to the State or to the environment. (113 and 196)

37. COMMENT: The automotive industry is experiencing rapid technological advancements. A hasty shift to electric vehicles might lock the State into a specific technology, potentially preventing New Jersey from benefiting from future developments like hydrogen fuel cells or other alternative fuels. Such a move could limit the State's adaptability to emerging automotive technologies. (485)

38. COMMENT: The Department should not mandate electric vehicles at this time but should instead transition the transportation sector to hybrid vehicles. (22, 26, 122, 138, 173, 188, 249, 313, 333, 345, 403, 409, 415, 433, 504, 530, and 691)

39. COMMENT: Existing ICE vehicles should not be banned and plug-in hybrid vehicles should be allowed to be sold. (304)

40. COMMENT: The rules should allow hybrids including plug-in hybrids. (52)

41. COMMENT: Hybrids are the answer for the foreseeable future because the initial torque is capable of getting a vehicle moving and these same electric motors can provide four-wheel capabilities to vehicles and to supplement total power peaks for vehicles like pickups, vans, and delivery vehicles. Fusion electric generation and printable solar voltaic panels, which are flexible, will be a game changer some day, but are not commercially viable yet. (198)

42. COMMENT: The transition to lower-carbon transportation is underway. Several efforts at State and Federal levels over many years have reduced emissions and improved the fuel efficiency of light-duty vehicles. Engine technology and gasoline improvement have worked together to help meet various environmental standards with innovation driving the most

technologically feasible and cost-effective solutions. Vehicle technology and energy/fuel improvement can continue to work together to meet the State's greenhouse gas reduction goals. However, ACC II's mandate of only EVs for future manufacturer sales of light-duty vehicles ignores the inclusion of all technologically feasible market-based solutions to lower greenhouse gas emissions, including use of renewable liquid fuels. The State is now picking winners and losers with its narrow definition of ZEVs. While it is true that battery electric vehicles (BEV) have no carbon dioxide emissions from the vehicle itself, the full carbon life cycle of vehicle manufacturing and consumed energy (fuel) is not zero carbon. The Department is addressing vehicles and energy in silos and is not considering the greenhouse gas implications across the full global vehicle manufacturing, energy emissions from electricity production, and delivery supply chain. The Department should replace the proposed ZEV mandate under ACC II with cost-effective, fuel neutral, market-based technological solutions for greenhouse gas reduction from light-duty vehicles. (647)

43. COMMENT: The Department should explain whether it has looked at alternative energy sources besides electric vehicles and explored using other sources of energy such as hydrogen or plasma in vehicles. (44)

44. COMMENT: An older car has roughly five grams per mile of emissions for every one gram per mile that a car that is five years or newer has. Implementing a supplemental catalytic converter on these older vehicles can bring these cars down to more current emission standards and provide a bridge to the cleaner air that EVs will bring. Implementing a program of supplemental catalytic converters would be very similar to the existing Diesel Emissions

Reduction Act (DERA) program for diesel trucks. That program requires EPA-verified technology and it allocates funds to implement the program. (373)

RESPONSE TO COMMENTS 16 THROUGH 44: The ZEV requirement of the ACC II rules requires manufacturers to produce and deliver for sale in New Jersey an increasing number of new ZEVs as part of their new passenger car and light-duty truck (collectively also referred to as light-duty vehicles) fleets. 55 N.J.R. at 1774. The ZEV requirement reaches 100 percent in 2035. *Id*. At that time, a manufacturer must satisfy 100 percent of production volume of new light-duty vehicles with an equal number of vehicle values. *Ibid*. Generally speaking, a single vehicle value is generated by the production and delivery for sale of a single qualifying ZEV or a qualifying plug-in hybrid electric vehicle (PHEV), which is a vehicle that uses both battery-powered electricity and another fuel, such as gasoline or diesel. A manufacturer may produce and sell its own qualifying ZEVs or PHEVs to generate the vehicle values necessary to meet its annual ZEV requirement, purchase or trade surplus vehicle values generated by another manufacturer, or use its own banked surplus values. *Id*. As manufacturers can bank surplus vehicle values for a limited number of model years, it is theoretically possible that one or more manufacturers would have enough vehicle values banked to meet an annual production volume in model year 2035 that includes a small portion of strictly ICE vehicles. As the Department explained in the notice of proposal, "[b]ecause of the program framework, the Department is unable to predict exactly how manufacturers will meet their requirements..." 55 N.J.R. at 1780. By and large, however, the Department expects that the majority of light-duty vehicle manufacturers will not be seeking CARB certification for new ICE vehicles in model year 2035. The ACC II rules do not apply to used vehicles.

As explained in the notice of proposal, the transportation sector, and particularly passenger cars and light-duty trucks, comprise the largest sector of the State's greenhouse gas emissions. See, for example, 55 N.J.R. at 1774, 1787. The Department determined that adopting ACC II is necessary for the State to reduce the State's greenhouse gas emissions and mitigate the most severe impacts of climate change. Further, the increase in ZEVs combined with the multi-pollutant exhaust emissions standards for ICE vehicles that are included in the ACC II rules are necessary to reduce the criteria pollutants like NO_x and PM. As set forth in New Jersey's 2017 emission inventory, the on-road sources within the transportation sector are responsible for 44 percent of New Jersey's annual Statewide NO_x emissions, which are a precursor to ozone and secondary particulate matter (PM). On-road sources are also responsible for 10 percent of New Jersey's annual Statewide PM2.5 emissions. See also the Response to Comments 238 to 258.

The annual ZEV requirement of ACC II is technology neutral. The ACC II rules do not specify a particular technology. Rather, the rules prohibit the sale and registration of new model year 2027 or subsequent model year passenger cars, light-duty trucks, or medium-duty vehicles that are not certified by the California Air Resources Board (CARB), see N.J.A.C. 7:27-29A.3(a), and require increasing percentages of vehicles sold to be zero emission. As explained in the notice of proposal, the ACC II rules recognize that battery electric vehicles (BEVs), fuel-cell electric vehicles (FCEV), and plug-in hybrid vehicles that meet the minimum technical requirements will qualify as vehicle values. See 55 N.J.R. at 1774-75. "Most [FCEVs] are powered by hydrogen (H_2) […] FCEVs are like [BEVs] in that they are both electric vehicles (EVs) that use an electric motor instead of an internal combustion engine to power the wheels. However, while BEVs run on batteries that are plugged in to recharge, FCEVs produce their

electricity onboard." See EPA Green Vehicle Guide Hydrogen in Transportation, https://www.epa.gov/greenvehicles/hydrogen-transportation. The ACC II rules not only recognize that FCEVs are ZEVs, but also a manufacturer that produces FCEVs for sale in California or a Section 177 state can receive extra values based on percentage of sales volume of the manufacturer's FCEV sales in the state where it sells the most FCEVs (known as the "annual proportional FCEV allowance"), 55 N.J.R. at 1775. Thus, the ACC II rules recognize that there are alternatives to BEV technology. Further, the Department recognizes that there are additional fuels that have low carbon emissions, such as compressed natural gas, ethanol, and biodiesel, but these fuels may still produce byproducts when combusted. The emission standards within the adopted rules are multi-pollutant standards, and require that ZEVs emit no criteria pollutants from the tailpipe. Nevertheless, there are opportunities for alternative fuel and combustion technologies to improve the emissions performance and efficiency of plug-in hybrid vehicles while generating power using fuel other than electricity. Currently, adopting an alternative to the Federal requirements other than the California program is not an option. As explained in the Response to Comments 675 through 687, pursuant to the Clean Air Act, New Jersey has only two choices when it comes to emission standards: the emission standards set by the EPA or those set by California.

Regarding comments that the conversion of fossil fuels into electricity is inefficient compared to internal combustion engines, the Department analyzed this as follows. New Jersey's electricity is produced from a mixture of energy sources through the PJM regional transmission organization. The bulk of the fossil fuel used for electricity production in the PJM region is natural gas (generation fuel mix at www.pjm.com). According to the U.S. Energy Information

Administration (EIA), most natural gas power plants use combined cycle steam turbines for base and intermediate loads, and "Combined-cycle systems have an average operating heat rate of 7,146 Btu/kWh." See https://www.eia.gov/todayinenergy/detail.php?id=52158. As one kWh is equivalent to 3,412 Btu, this translates to an efficiency of 48 percent of the chemical energy in natural gas converted to electricity. The EIA estimates average electricity transmission and distribution losses at 5 percent. See https://www.eia.gov/tools/faqs/faq.php?id=105&t=3. The U.S. Department of Energy and U.S. Environmental Protection Agency website www.fueleconomy.gov has a breakdown of how electricity is used and lost in an average electric vehicle. See https://www.fueleconomy.gov/feg/atv-ev.shtml. From losses due to battery charging, accessories, drive system, auxiliary electrical, wind resistance, rolling resistance, and braking, plus energy recovered from regenerative braking, overall electric vehicle efficiency is 87 percent to 91 percent from the charging station to the wheels. Thus, overall efficiency from natural gas electricity generation to electric vehicle wheels is (48 percent - five percent) x (87 percent to 91 percent) = 37 percent to 39 percent. The website www.fueleconomy.gov also has a breakdown of how energy is used in a gasoline vehicle. See https://www.fueleconomy.gov/feg/atv.shtml. From losses due to engine heat and friction, accessories, drivetrain, parasitic pumps, auxiliary electrical, wind resistance, rolling resistance, and braking, overall gasoline vehicle efficiency is 16 percent to 25 percent. In conclusion, comparing the combustion of fossil fuels to generate electricity and power the wheels of an electric vehicle is 37 percent to 39 percent efficient, while directly combusting gasoline to power the wheels of a gasoline vehicle is only 16 percent to 25 percent efficient.

To compare the emissions of New Jersey fossil fuel power plants versus gasoline and diesel vehicles, the Department references the 2017 Criteria Pollutant Air Emissions Inventories. See https://dep.nj.gov/airplanning/emissions-inventories/. For the purpose of the State air emissions inventories, power plants are classified as large stationary point sources of emissions. For volatile organic compounds, on-road mobile sources account for 20 percent of emissions, while point sources are eight percent. For oxides of nitrogen, on-road mobile sources account for 44 percent, while point sources are 14 percent. For fine particles, on-road mobile sources account for 10 percent, while point sources are 11 percent. With the exception of fine particles (where the numbers are similar), the overall on-road mobile sources emit a greater percentage of criteria air pollutants than power plants.

Achievability and Readiness

General

45. COMMENT: As of September 2022, Bloomberg's New Energy Finance projects that market forces alone will make electric vehicle sales reach 23 percent of U.S. passenger vehicle sales in 2025, and 52 percent in 2030. In New Jersey, sales of ZEVs were at 12.12 percent of the new vehicle sales market during the first quarter of 2023 – an increase from just over 10 percent at the end of 2022, and these numbers continue to grow annually. ACC II will facilitate and accelerate that already occurring process and strengthen the current standards. Also, with strong automaker commitments and Federal laws—such as the Infrastructure Investments and Jobs Act and the Inflation Reduction Act (IRA)—electric vehicles will become even more accessible and affordable. During the ACC II hearing at CARB, no automaker opposed the regulations. While

many automakers stated that hitting the ZEV targets could be a challenge, none said it was infeasible. Not only have automakers already announced more than $210 billion dollars of investments to support the transition towards ZEVs in the United States, several automakers have committed to electrifying most or all of their fleet in the 2025 to 2035 timeframe, when ACC II will be in effect. The ACC II standards merely support and accelerate the industry's transition to ZEVs by ensuring that New Jersey is among the first to obtain ZEVs. (292)

46. COMMENT: In 2022, the number of EV models worldwide reached 500, up from below 450 in 2021 and more than doubling relative to 2018-2019. In particular, manufacturers are expanding their SUV and pickup truck offerings in line with consumer demands. Consumer Reports has compiled a list of at least 30 new EVs in different makes and models that are expected in the U.S. by the end of 2024. Over the time frame covered by the ACC II program, the number of models can be expected to continue to increase quickly as major carmakers expand their EV portfolios and new entrants strengthen their positions. The Department should adopt the ACC II program without delay, as it is an important step towards decarbonizing the transportation sector and the goals are achievable. The automotive industry has centered on electrification as the most commercially viable way to protect public health, the climate, and the environment by reducing tailpipe emissions. Industry competence in EVs is paralleled by public opinion, as 71 percent of New Jersey voters aged 18 to 35 favor the phase-out of fossil fuel vehicles. (79)

47. COMMENT: Adopting ACC II is consistent with where the market is going; with major auto companies, such as General Motors, Ford, and Volvo, already committed to 100 percent electrification and releasing an increasing number of EVs over the next three to five years. These

commitments by almost all major auto companies reflect the growing interest of New Jersey consumers. In the first half of 2023, 33,000 EVs were sold. That is just 4,000 shy of the 37,000 sold in all of 2022. This market is already transforming, and adoption of ACC II would support that transformation. We can do big things in New Jersey. While it seems daunting to adopt a goal of 330,000 EVs by 2025, this past June, there were 123,000 and this trend is accelerating. (234)

48. COMMENT: New Jersey is making rapid progress in the adoption of EVs and the State exceeded all of calendar year 2022 car and light truck EV registrations in just the first six months of 2023. The Charge Up NJ EV Incentive Program (CUNJ) by the New Jersey Board of Public Utilities (BPU), a cash-on-the-hood incentive for new car buyers, seeks to amplify this momentum and bring price parity for EVs. In its first three years, the CUNJ Program incentivized 16,375 new EVs on New Jersey's roads. These accelerated results demonstrate that the New Jersey EV market is moving in the right direction and that New Jersey can achieve the goals of the EV Act, N.J.S.A. 48:25-3, and ACC II. On the national stage, the IRA has dramatically impacted the trajectory of the EV market and light duty EV load is expected to jump nearly 375 percent by 2030, according to S&P Global Commodity Insight's latest U.S. Long-Term Plug-in Electric Vehicle Forecast. The United States Energy Information Administration (EIA) projects that electric vehicles, including both BEVs and PHEVs, will account for up to 30 percent of new light-duty vehicle sales in the U.S. by 2050. Furthermore, S&P Global analysts revised their previous EV sales forecasts based on IRA impacts, with battery electric vehicles now expected to surpass 4.6 million by 2030, more than double the prior expectation of two million. (329)

49. COMMENT: The U.S. lags far behind the world in EV sales. Although 2023 is not over yet, projections are that about one in five new vehicles across the world will be EVs. That figure in the U.S. is about one in 10, and New Jersey does better than the nation as a whole. (213)

50. COMMENT: The ACC II rules will be another example of industries adapting, new technologies becoming available, learning to live with the changes, and living longer because of less pollution. Ways for new and more powerful batteries, longer battery life, and replacement of lithium ion batteries are all being worked on. It is clear that people like EVs, which are hitting a transition point where rapid growth increases. Although manufacturers say they want to go electric, they continue to promote high-end gas SUVs, so a mandate is needed to push the industry along. Both incentives and minimum sales requirements are necessary. (58)

51. COMMENT: ZEV technology already offers a superior alternative to internal combustion engines. Relying on market forces alone to address the climate change market failure would be self-defeating and naïve. Consumers and businesses who have made the switch to EVs have already experienced them as being superior technology. (376)

52. COMMENT: Adopting ACC II will ensure residents can access the ZEVs they want within the State while solidifying the State's role as a climate leader. (494)

53. COMMENT: Many automakers have already announced their plans to no longer produce internal combustion cars so by adopting the rules, New Jersey will send another massive signal that they should focus their efforts on electric cars. The Department should require ZEVs by 2030 or sooner. (533)

54. COMMENT: EVs and plug-in hybrids have never been safer, cleaner, or more fuel efficient than they are now. (18)

55. COMMENT: There are six states that adopted the ACC II standards last year. The vast majority of clean car states are moving forward with adoption right now in model year 2023, and the automobile manufacturers are also leading the charge. GM, for example, has committed to phasing out the sale of new internal combustion engine cars by 2035. This is obviously a transition, but it is a transition that is accelerating. You can go to every major automobile manufacturer and find, not just an EV, but an EV in the type of vehicle that you are used to buying. That is critical. (493)

56. COMMENT: By requiring that a significant percentage of vehicle manufacturers' sales comprise zero-emission vehicles, the State is fostering innovation, encouraging investment in clean technologies, and creating a healthier environment for all residents. The proposed plan's gradual approach, culminating in a 100 percent zero-emission vehicle sales target by 2035, demonstrates a thoughtful and feasible trajectory for our transportation sector. This not only aligns with the global movement towards cleaner mobility, but also presents economic opportunities by positioning the State as a hub for electric vehicle manufacturing and adoption. (156)

57. COMMENT: Six states have already adopted the ACC II rules and car makers are also supporting the transition. (329)

58. COMMENT: The Department's approach to phasing out gas cars and replacing them with electric cars allows time for markets to shift. Also, as more EV production comes online, the prices will come down so the financial burden will not be as great. Similarly, the phased approach allows time for the energy grid to adapt to a heavier load from all the charging and charging networks will have more time to be built out. Positive health impacts from the switch

cannot be left out of the equation. Reductions in air and noise pollution will make New Jersey residents healthier and happier. (645)

59. COMMENT: Current products meet the requirements of ACC II and are proof that now is the time to adopt the rules. (671)

60. COMMENT: Adopting ACC II's strong vehicle standards is necessary and feasible. (201)

61. COMMENT: The ACC II regulations require very aggressive increases in EV sales. New Jersey's ZEV sales comprised 8.32 percent of new vehicles sales in 2022. Thus, in New Jersey, EV sales must increase more than four-fold in about three model years. These are staggering required sales increases for a new technology that relies heavily on customer acceptance and market readiness. Consumer awareness, understanding, and trust of the technology is essential to move from 8.32 percent New Jersey EV sales to 100 percent in the next 12 years. (457-1)

62. COMMENT: It is important to address climate change, but the rules should provide a longer timeline for the transition to EVs. (41, 149, 429, 550, and 638)

63. COMMENT: Although addressing environmental issues is important, the 2035 timeline is unrealistic and extremely costly for everyone. (695)

64. COMMENT: This *de facto* ban on ICE vehicles is unattainable. Neither California nor New Jersey has studied whether this social experiment is achievable, including whether the majority of New Jersey residents will buy EVs. (342)

65. COMMENT: The Department has not explained why it proposed a ban date of 2035. (92)

66. COMMENT: Moving to all EV sales should evolve over a 25-year period. Auto manufacturers are putting their entire shareholder investors at risk as the buying market will resist these vehicles in the short run. (519)

67. COMMENT: The State does not have the infrastructure or resources to remove all ICE vehicles. (287 and 724)

68. COMMENT: While the idea of cleaner energy is fantastic, the State is not yet in a position to consider a full-fledged switch to battery power and will not be within the next 10 years either. (78)

69. COMMENT: The Department must carefully weigh the benefits of all EV or hybrid vehicles against the potential financial, logistical, environmental, and economic challenges and drawbacks and ensure that any shift aligns with the State's long-term goals and objectives. (485)

70. COMMENT: The Department should not adopt the rules because the timing of the transition to EVs is too rapid. Some commenters cite specific concerns, including the challenge of financing the transition, immature EV technology, lack of technicians, and/or the inadequate power supply/infrastructure. (55, 64, 67, 73, 75, 95, 114, 138, 143, 150, 152, 165, 166, 181, 200, 222, 223, 235, 246, 301, 305, 324, 344, 350, 364, 369, 379, 389, 408, 411, 412, 458, 516, 519, 525, 555, 562, 572, 604, 619, 625, 629, 638, 641, 679, 681, 688, 689, 718, and 720)

71. COMMENT: New Jersey does not have the infrastructure to support the rules. (512)

72. COMMENT: EVs are probably at least 50 years from being commercially viable without subsidies. (198)

73. COMMENT: The technology is not advanced enough to ban ICE vehicles and force EVs on consumers. (50, 92, 120, 171, 179, 368, 611, and 717)

74. COMMENT: Not enough batteries can be produced for the EVs required by the rules. (250)

75. COMMENT: The State of New Jersey is faced with a binary choice: adopt California's ACC II plan or revert to the Federal Clean Car rule. New Jersey is not ready to go all-electric and the State needs additional time to move in that direction. (9)

76. COMMENT: The vision of a transition to near-zero and zero emission vehicles is supported and will be most successful if the rules take a full and accurate account of the critical factors facing the transition. Any proposed rulemaking around electrification must thoroughly assess the cost, operational suitability, and availability of electric vehicles. As an example, electric light-duty vehicle availability has dramatically decreased in the last several years due to COVID and manufacturing-related supply chain disruptions, and more recently by the United Auto Workers (UAW) strikes. These disruptions have put many fleets behind in their ability to replace aging vehicles with ZEVs. For many of these vehicles, the manufacturing backlog is not anticipated to improve for at least a year, if not more. Partly because of the microchip shortage, and partly due to slower than anticipated advancements in technology, many of the cost-effective light-duty ZEVs that were expected to be available by now are still many years from production. Vehicles in these categories make up a significant part of many fleets. (651)

77. COMMENT: The ACC II rules set ambitious targets for EV sales that are currently unattainable based on market trends. Forcing automakers to meet these targets may lead to unintended consequences, such as rushed production and potential quality concerns. (312)

78. COMMENT: The Department must consider whether car manufacturers can construct and deliver, to New Jersey, enough EVs in the time frame required, given the supply challenges in acquiring the rare earth materials to make the batteries. If there is not enough supply to meet a

demand for EVs that is being artificially propped up by this regulation, EVs may be sold for more than sticker price, making them even more unaffordable for motorists. (70)

79. COMMENT: Nobody denies climate change or that society must move with all due deliberate speed to reduce the carbon footprint from automobiles. Automakers and auto retailers have already invested billions, indeed tens of billions, to design, build, and sell EVs. New Jersey new car dealers spent an estimated $150 million to invest in the necessary tools, training, and equipment to sell and service EVs. However, ACC II begins with questionable and extremely optimistic assumptions about potential ZEV and qualified PHEV sales volumes in New Jersey. The Department's analysis about the environmental and health benefits of adopting ACC II is based upon the assumption that ZEV and PHEV sales growth will jump up from a combined total of just over 10 percent today, to 43 percent in 2027, and all the way up to 100 percent by 2035. While EV sales growth is increasing each year, growing an additional 33 percent in less time than it took to reach 10 percent strikes most industry experts as overly optimistic. Also, the goal of 100 percent ZEV sales by 2035 is laudable, but not realistic, considering the impact ACC II will have on affordability and consumer choice in the auto marketplace. The State should first get to 10 or 15 percent EV sales before imposing the ACC II mandates. The State should also demonstrate the capacity of meeting the current mandates before doubling and tripling down on even more stringent rules. The current California rules that apply in New Jersey call for model year sales this year to come in at 22 percent. The State is at less than 10 percent. (27)

80. COMMENT: The rules assume the auto industry can meet the demand, which they cannot and will not meet. (425)

81. COMMENT: The rules overlook the current limitations of EVs and the supporting infrastructure, which will limit transportation for residents, particularly those in rural areas or with longer commutes. Balancing environmental goals and the practicality of implementing such measures is crucial. (577)

82. COMMENT: Many of the concerns that were brought up during the April 12, 2018, Clean Air Council public meeting are identical to the concerns of today– affordability, infrastructure issues, range anxiety, grid reliability, etc. EVs are expected to be a significant part of the solution to the air pollution problems in New Jersey and the region. However, much more must be done to increase the sale and use of these vehicles, particularly to more of the mainstream public. (202)

RESPONSE TO COMMENTS 45 THROUGH 82: By setting an annual ZEV requirement, the Department is providing certainty to vehicle manufacturers, suppliers, utilities, and infrastructure manufacturers to make the long-term investments that will be crucial to large-scale deployment of light-duty ZEVs and consumer choice. Although compliance with the adopted rules will require significant changes to manufacturers' product offerings and scale of production, as some commenters indicated, many automakers committed to expanding their offerings of new ZEV makes and models before the adopted rules were proposed. This shift was further detailed in CARB's Initial Statement of Reasons, which noted that "[t]he industry has rapidly responded to evolving market pressures, consumer demands, and regulatory requirements in California, across the United States, and around the globe. Overall, these improvements have reduced costs for batteries, the main driver of BEV and PHEV costs, as well as for non-battery components. This has enabled manufacturers to accelerate plans to bring to market more long-range ZEVs in more

market segments and highly capable PHEVs. Today, every manufacturer has a public commitment to significant if not full electrification in the next 20 years. Based on public announcements, it is expected that nearly 120 ZEV and PHEV models will be available to consumers before the 2026 model year." CARB ISOR, p. 7 (https://ww2.arb.ca.gov/rulemaking/2022/advanced-clean-cars-ii).

Today, there is a significant variety and diversity of EV makes and models available in New Jersey. Based upon the latest Alternative Fuel Vehicle (AFV) report (https://dep.nj.gov/drivegreen/nj-ev-data/), which includes vehicles registered in New Jersey through June 30, 2023, a total of 72 unique models of 2023 light-duty battery electric, plug-in hybrid, and fuel cell electric vehicles are in use, as compared to the 349 unique models of light-duty ICE vehicles. As the adopted rules' requirements do not take effect until model year 2027, manufacturers should have sufficient lead time to develop and validate new products within the range CARB predicted by model year 2027 and to continue to expand upon their product offerings as the annual ZEV requirements ramp up through 2035. As discussed more fully in the Response to Comments 87 through 115, manufacturers are expected to produce vehicles that meet consumers' needs. The adopted rules will help to ensure quality by including minimum requirements related to the range and durability of ZEVs used to meet a manufacturer's annual requirement. See the Response to Comments 608 through 612. Further, as discussed in the Response to Comments 289 through 419, as the annual ZEV requirement increases and technology advances, economies of scale and more EV choices for consumers are likely to result in price parity of EVs with comparable ICE vehicles.

The Department acknowledges that supply chain issues are a variable today in terms of ZEV production. However, the Department cannot predict if, and for how long, such issues may persist. As CARB noted, the ACC II rules "provide flexibilities in the use of banked credits to facilitate compliance" should there be supply disruptions. CARB Final Statement of Reasons (FSOR), Appendix A at 15 (https://ww2.arb.ca.gov/rulemaking/2022/advanced-clean-cars-ii). Additionally, the Department notes that the annual ZEV requirements that manufacturers must meet in New Jersey would not begin until model year 2027. As CARB noted, in the years leading up to 2027, manufacturers have opportunities to take advantage of the flexibilities, such as the ability to earn early credits, that are built into the rules. The Department may always revisit the rules as necessary. See the Response to Comments 705 through 710.

Compliance with the rules will require an infrastructure transition as the light-duty fleet moves from refueling at gas stations to recharging their vehicles with electricity primarily at home or work or, less frequently, at public fast charging stations or hydrogen fueling stations. Please see the Response to Comments 116 through 169 regarding the sufficiency of the State's charging infrastructure.

Automotive Repair

83. COMMENT: There are not enough repair shops to support the rules. (81)

84. COMMENT: How will maintenance be handled by car shops? Will auto mechanics be trained and allowed to repair EVs? (623)

85. COMMENT: The rules should include owner right-to-repair. If car dealerships and companies are the only ones allowed to work on these vehicles, prices will likely increase. (623)

86. COMMENT: The rules would force people to use an EV dealer for maintenance, which typically costs more than using a third-party mechanic. (115)

RESPONSE TO COMMENTS 83, 84, 85, AND 86: Commenters have expressed concern regarding what facilities may work on electric vehicles. Since dealerships that sell electric vehicles are typically required by the motor vehicle manufacturers to be equipped to service what they sell, the Department anticipates no shortfall in service facilities for the duration of new vehicle warranties. While dealerships generally need to provide warranty and recall repairs where the manufacturer bears the cost of parts and labor, it is not necessary for dealerships to perform out-of-warranty work. There are several provisions of the California ACC II regulations that the adopted rules at N.J.A.C. 7:27-29A.7 incorporate by reference that address that issue. First is the requirement that California-certified ZEVs must adhere to standard data connector and communications protocols (on-board diagnostics, or OBD). This makes it easier for non-dealers to use standard scan tools and diagnostic equipment on electric vehicles. Second is a requirement that vehicle manufacturers "... make available for purchase ... all emission-related motor vehicle information and emission-related engine information, and propulsion-related information, as applicable, that is provided to the motor vehicle manufacturer's or engine manufacturer's franchised dealerships or authorized service networks for the engine or vehicle models they have certified in California." 13 CCR 1969(e)(1), adopted by reference at N.J.A.C. 7:27-29A.7. Pursuant to this regulation, individuals and independent repair shops will have access to the same vehicle information as dealerships. If independent repair shops require special equipment to work on electric vehicles, such as battery tray lifts or forklifts, it is up to the shop as to whether they wish to make such investments. However, there is no obstacle in terms of

vehicle data or repair information that would prevent an independent repair shop from servicing an electric vehicle. Additionally, the Department notes that the National Institute for Automotive Service Excellence (ASE) offers several relevant certification paths for automotive technicians working on hybrid and electric vehicles, see https://www.ase.com/. These include the Light Duty Hybrid/Electric Vehicle Specialist Certification Test (L3), parts of their Automobile & Light Truck Certification Tests (A1 – A9), which cover electronics and electrical systems, and new xEV Safety Certifications for technicians working on high voltage batteries and electrical systems. Finally, as mentioned in the Department's ACC II proposal, electric vehicles generally require less maintenance than internal combustion engine vehicles. Many common maintenance items, such as tires, brakes, windshield wipers, glass, and lights are the same on electric vehicles as on internal combustion engine vehicles and any vehicle service facility can address these items without EV-specific training or equipment.

Operational Needs and Range; Performance

87. COMMENT: It is important to address climate change, but the rules should allow for hybrids and/or internal combustion engine (ICE) vehicles for situations in which charging stations are limited and/or range is a concern. (106 and 466)

88. COMMENT: The rules are supported. However, there needs to be a greater selection of EVs that have a 300 mile per charge range and more fast charging stations on the road. (556)

89. COMMENT: There is no environmentally friendly car in this country that is also reliable and completely safe for the driver and passengers. Therefore, the only consumer friendly and environmentally friendly car available so far is the gasoline powered vehicle. While consumers

may look forward to the next solution, for now this is the choice. The State should not limit or ban the only strong choice for commuting or travel. (37)

90. COMMENT: The Department should not adopt the rules because EVs do not meet the operational needs and/or wants of all consumers and/or the technology is not supported. (7, 32, 51, 66, 133, 134, 182, 204, 209, 210, 239, 252, 254, 286, 314, 318, 321, 350, 365, 403, 405, 441, 474, 483, 499, 500, 519, 541, 595, 596, 597, 610, 624, 625, 639, 648, 661, 662, 667, and 709)

91. COMMENT: Not all families would benefit from having an EV. A large family needs larger vehicles and there are no electric minivans and passenger vans. (368 and 405)

92. COMMENT: The State's culture includes driving down the shore, which would be lost if ICE vehicles are banned or limited. (483)

93. COMMENT: The Department should not adopt the rules because EVs do not have the range or efficiency needed for long-term use. (484 and 413)

94. COMMENT: The Department should not adopt the rules because EVs are unreliable, are much less reliable than ICE vehicles, and/or are unsafe. (50, 182, 210, 281, 323, 368, 479, 506, 509, 625, 639, 641, 648, 662, and 702)

95. COMMENT: Assumptions made for EVs are that they are typically used only for 30-mile maximum travel from home base and that recharging can easily be done overnight with a household Level 2 charger. The impact of simultaneous numbers of EVs, including trucks and buses requiring Level 3 charge, has not been addressed in any analysis. (350)

96. COMMENT: The Department should not adopt the rules because EVs have limited range on a single charge. Some commenters cite specific concerns, including the impracticality of driving an EV if traveling a great distance, such as for a long daily commute, a long day of deliveries,

and/or a vacation destination and/or for consumers who need vehicles with significant towing capacity or to plow snow. (7, 25, 32, 40, 45, 51, 68, 115, 133, 134, 135, 136, 142, 167, 169, 170, 182, 185, 188, 193, 198, 206, 209, 210, 221, 239, 261, 263, 271, 275, 285, 308, 318, 323, 350, 356, 379, 403, 406, 411, 413, 415, 426, 453, 463, 467, 485, 491, 501, 504, 506, 518, 528, 529, 541, 544, 546, 599, 607, 625, 662, 679, 639, 707, 709, 716, 705, and 701)

97. COMMENT: The rules should include options that allow long-distance Rving. (599)

98. COMMENT: The Department should not adopt the rules because EV batteries lose range (miles per charge) over time. (55, 350, and 388)

99. COMMENT: EV battery technology is the same lithium ion that has existed for ages. Few changes have been made to this technology and nothing significant is expected to change by 2035 to increase range. (504)

100. COMMENT: It has been found that electric cars lose close to 2.5 percent of their battery capacity every year. That means an eight-year-old used car that is purchased would have mileage that is 20 percent less than when the car was new, and using DC fast chargers would reduce the battery capacity over time at a higher rate. (51)

101. COMMENT: The maximum range of an EV is only achieved if there is no radio or air conditioning used because the more power used, the less mileage achieved. (135)

102. COMMENT: It is uncertain whether the range and mileage of EVs will improve by 2035. (709)

103. COMMENT: Rules on electrification must consider proven technology that is both comparable in range and duty cycle, as well as job performance before mandating either their manufacture or adoption. Regulations are incapable of mandating technological innovation and

improvement by manufacturers. This effectually compromises the ability of fleet managers to deploy a mix of vehicles designed to deliver required or adequate services to their respective communities. (651)

104. COMMENT: The Department should not adopt the rules because certain weather and/or road conditions have a negative impact on the performance of EVs. Some commenters cite specific concerns, such as the negative impact on reliability and/or range. (24, 64, 104, 114, 143, 185, 210, 308, 318, 350, 356, 359, 403, 425, 428, 464, 467, 474, 506, 516, 529, 586, 625, 648, and 684)

105. COMMENT: If there is a freezing cold winter, 20 percent of the charge overnight that was paid for in electricity costs is lost because it was cold out. (356)

106. COMMENT: EVs have limits in emergencies like hurricanes or forest fires. (308)

107. COMMENT: In a bad winter and/or storm, EVs will stop running, either stranding motorists or trapping citizens and risking their lives. (91, 259, and 464)

108. COMMENT: EVs will create life-threatening situations for those stuck in the elements. An EV heater and/or air conditioner does not last as long as a gas-powered HVAC system within a traditional vehicle. (115)

109. COMMENT: If an EV dies on the road, the EV cannot be charged and it will be a major undertaking to have it towed, if it can be towed. The Department should explain what happens if there is an emergency situation and EVs all die on the road and block the road. (648)

110. COMMENT: There are significant dangers of EVs breaking down in a snow storm. (611)

111. COMMENT: EVs do not work well in cold climates, which could impact emergency workers' ability to get to work. (467)

112. COMMENT: An all-electric push now will lead to stranded vehicles. (519)

113. COMMENT: The Department should explain what happens if a ZEV breaks down and how the driver will get an initial charge as opposed to getting a gas can. (245)

114. COMMENT: EVs are entirely dependent on their battery, making them much less efficient during cold winter months, reducing their driving range and they struggle to make heat in the cabin. EV drivers must sometimes choose between driving range or getting heat into the cabin on a frigid cold day. EV manufacturers do not test EVs in all weather conditions as extensively as gasoline powered cars. EV manufacturers often test EVs in pristine weather conditions and on pristine road surfaces. They do not test EVs on New Jersey's many pothole-ridden roads and highways. Also, they do not test EVs on frigid cold New Jersey winter nights. (363)

115. COMMENT: The Department should explain what happens if a family driving an EV gets caught roadside in a storm or an accident or runs out of power in the cold. (701)

RESPONSE TO COMMENTS 87 THROUGH 115: Before proposing ACC II, CARB staff evaluated potential ZEV compliance requirements based, in part, on manufacturers' public announcements and investments in ZEV technology. CARB ISOR, pp. 36-42. CARB noted that "manufacturers have announced plans to electrify, and many have indicated to CARB in survey responses that even in the near-term there will be significant electrification growth. This indicates manufacturers are not only adding specialty low-volume ZEV models but transitioning high-volume gasoline models into ZEVs. [CARB] Staff expects this sort of compliance response as manufacturers seek to meet the early years of the requirement with the easiest segments to electrify, such as small and midsized cars, and small crossover utility vehicles. The proposed trajectory for 2026 through 2030 aligns with what [original equipment manufacturers] have

stated in projections of ZEVs and PHEVs. [CARB] staff is [also] proposing a trajectory that moderates in the final years to 2035. This is because staff expect the last 20-percent of the fleet will be more challenging to electrify than the first 80-percent." CARB ISOR, p. 40. The Department recognizes that the available makes and models of ZEVs on the market today will not meet the operational needs of all consumers today. However, "[m]anufacturers have made significant improvements in battery technology, which has enabled more vehicle offerings in more segments and increasing capabilities." CARB ISOR, p. 37. For these reasons, the Department is confident that the number of makes and models serving a greater diversity of operational needs will increase as the annual ZEV requirement increases.

To the extent that there are concerns about the range of ZEVs, as explained in the notice of proposal, ACC II requires that ZEVs meet certain minimum requirements, including range. See 55 N.J.R. at 1776. Further, it is worth reiterating that each manufacturer may meet 20 percent of its annual ZEV requirement with qualifying PHEVs. Starting in model year 2026, to qualify as a ZEV, California's ACC II regulation has a minimum certification range value of greater than or equal to 200 miles, *ibid*., well more than the 29 miles the average driver drives each day (https://www.bts.gov/statistical-products/surveys/national-household-travel-survey-daily-travel-quick-facts).

Additionally, 13 CCR 1962.4, which is incorporated by reference at N.J.A.C. 7:27-29A.7, outlines the minimum durability requirements for a ZEV to qualify as one vehicle value. For model years 2026 through 2029, a ZEV must maintain 70 percent of its range value for a useful life of 10 years or 150,000 miles, whichever occurs first. As an example, a new model year 2026 vehicle with a CARB-certified range value of 300 miles must maintain a range value of 210

miles during its useful life. For model years 2030 or later, a ZEV must maintain 80 percent of its range value for a useful life of 10 years or 150,000 miles, whichever occurs first. *Ibid*. For a new 2030 vehicle with a 300-mile CARB-certified range, it would maintain at least a 240-mile range. This is a minimum requirement.

For PHEVs, ACC II requires a minimum certified range value of greater than or equal to 70 miles and a minimum all-electric range value greater than or equal to 40 miles using the US06 test procedures if it is to qualify for a single vehicle value. See 13 CCR 1962.4. As a PHEV can run on battery or an internal combustion engine, its internal combustion engine must be certified to full useful life for super-ultra-low-emission-vehicle 30 (SULEV30) or lower exhaust emission standards for passenger cars and light-duty trucks to qualify as a single vehicle value. *Ibid*.

Manufacturers know that they will need to produce ZEVs with increased range for certain vehicle segments. As the adopted rules' requirements do not take effect until model year 2027 in New Jersey, manufacturers should have sufficient time to expand upon their product offerings through model year 2035 to ensure that some ZEV models appeal to consumers with long commutes and/or high mileage requirements. However, the ACC II rules recognize that for a portion of consumers, only a PHEV will meet their lifestyle or business needs. Therefore, as mentioned above, the ACC II rules allow a manufacturer to meet 20 percent of its annual ZEV requirement with qualifying PHEVs.

To the extent that there are concerns about the potential for diminished range in different weather or geographic conditions, the Department notes that the overall electric vehicle ownership in Norway is estimated to be 20 percent as of December 2022 (https://europe.autonews.com/automakers/evs-now-make-20-norways-cars) while overall EV

sales hit 65 percent in 2021 and 79 percent in 2022 (https://electrek.co/2023/01/02/norway-hits-record-ev-share-in-2022/). The average mean temperature in Norway is colder than the average mean temperature in New Jersey in every season. Compare https://climateknowledgeportal.worldbank.org/country/norway/climate-data-historical with https://climateknowledgeportal.worldbank.org/country/united-states. According to the Norwegian Automobile Federation, EVs can lose up to 20 percent of their range in sub-freezing weather. See Cold Temperatures Affect an Electric Vehicle's Driving Range - Consumer Reports (https://www.consumerreports.org/cars/hybrids-evs/how-much-do-cold-temperatures-affect-an-evs-driving-range-a5751769461/#:~:text=Cold).

Taking the Norwegian experience into account, to mitigate the effects of extreme temperatures, many EVs are equipped with battery thermal management systems to heat and cool the battery pack to optimize the chemical reaction that allows for faster charging and discharging of the battery. See www.nrel.gov/docs/fy13osti/57747.pdf. Some EVs also come with high efficiency heat pumps to provide cabin heating with less battery drain than resistance heaters. Also, many EVs come standard with heated steering wheels and seats. While some people may view this as a luxury option, it is more efficient to heat only the seat occupants rather than the entire vehicle cabin. Seat and steering wheel heaters use a fraction of the energy required for resistance cabin heating. Another option on many EVs is preconditioning, which allows the vehicle to warm the batteries and cabin while still plugged in to avoid draining the batteries. See https://www.edmunds.com/electric-car/articles/heaters-in-electric-cars-how-do-they-work.html. This is similar to “remote start” on gasoline vehicles, but is not limited by the Department’s

engine idling restriction of three minutes because battery electric vehicles have no tailpipe emissions.

As CARB noted in its Final Statement of Reasons, "[m]anufacturers continue to conduct durability testing of their ZEV models in the same extreme weather environments that they test their conventional vehicle models. Additionally, the SAE J1634 BEV range testing standard has an optional 5-cycle pathway that allows manufacturers to test in cold weather conditions to generate different range calculations than they would be able to on the more standard testing pathways. Some manufacturers have started to choose this pathway, because their cold weather performance is outperforming the standard reduction multiplier created with years of input testing vehicles of all types." (FSOR Appendix A, Page A-11). In short, ZEV technology continues to improve because manufacturers know that they will need to build vehicles for consumer segments with varying needs.

As noted by CARB, "fuel risks from blackouts or being stranded on the freeway also exist similarly for conventional vehicles and are not new or unique to ZEVs." CARB FSOR Appendix A at 28. The Department also notes that roadside charging programs for electric vehicles continue to be developed and expanded upon. See, for example, Electrifying AAA Member Benefits (December 1, 2022), at https://newsroom.aaa.com/2022/12/electrifying-aaa-member-benefits/?_gl=1*1lcar3k*_ga*MTI5MzI0MDU5OS4xNjk3NjU0NDk1. In addition to AAA service, many motor vehicle manufacturers offer roadside assistance for their electric vehicles. See https://www.recurrentauto.com/research/roadside-assistance-in-an-electric-car. See also the Response to Comments 170 through 195.

As mentioned above, electric vehicles may be subject to specific cold weather testing and labeling at the discretion of the manufacturer. In addition, any concerns about electric vehicle safety are addressed by the National Highway Traffic Safety Administration in the U.S. Department of Transportation. All motor vehicles in the U.S. are required to meet the same safety standards. See https://www.nhtsa.gov/sites/nhtsa.gov/files/documents/motor_vehicle_safety_unrelated_uncodified_provisions_may2013.pdf.

Adequate and Accessible Charging Infrastructure

116. COMMENT: To help with the transition to ZEVs, it is vital that the State continues to support charging station infrastructure deployment. Also, just as the ACC II regulation ramps up over time, so can the State's charging infrastructure. New Jersey is already taking strides to further build out a robust network of charging infrastructure within the State. As part of the Federal Infrastructure Investments and Jobs Act, New Jersey will receive over $104 million to help further build out the charging infrastructure in the State through 2026—before the start of the ACC II program. While it is important that the State continues to support the build out of charging infrastructure, adoption of the ACC II regulations will also help to draw private investments into the State. Private charging station companies are more likely to install and maintain charging infrastructure in states that have strong zero-emission vehicle standards, as they know the demand for the charging infrastructure will be prevalent. (292)

117. COMMENT: The rules will incentivize the building of necessary EV infrastructure and public transportation. (256)

118. COMMENT: The State has ample charging so driving range is not a concern. EVs are perfect vehicles for commuting and running errands in many of the State's easily walkable and transit-accessible communities. (711)

119. COMMENT: The United States Department of Energy's (DOE) Alternative Fuels Data Center has mapped 1,048 public Level 2 and DC fast charging stations with 3,006 individual ports in New Jersey; the data exclude residential charging, where a majority of charging occurs. While there are many charging options available to EV drivers, the expansion of the national charging network through the National Electric Vehicle Infrastructure (NEVI) formula program, of which New Jersey will receive $104.4 million over five years, paired with millions of dollars in private capital will only further inspire confidence in the technology. (79)

120. COMMENT: Some question the cost and likelihood of more EV cars on the road due to range anxiety and lack of public charging stations to meet future and increased demand if ACC II is adopted. New Jersey is already working on the issue of adequate public charging through the implementation of the NEVI program, which maps out locations and installs public charging stations along the State's major traffic and commuter corridors like the New Jersey Turnpike and Garden State Parkway. (265)

121. COMMENT: Reliable and convenient access to charging stations supports the State's customers who buy or lease EVs. Publicly available charging stations ease perceived "range anxiety" concerns and substantially increase consumer awareness of the technology. The challenge of reaching the ACC II mandate of 100 percent electric vehicle market share by 2035 requires New Jersey to address several hurdles to consumer acceptance. For example, the State must deploy convenient, reliable, and affordable access to public EV charging and hydrogen

refueling stations and monitor stations to ensure reliability of charger availability and charging power rate delivered at DC Fast Chargers. The State must also install 350 kW DC Fast Chargers at airports and major transportation hubs and consider installing hydrogen fueling stations at locations to fuel and support transportation network company EVs and taxis. Hydrogen vehicles may be better suited for some customers, especially those that do not have access to charging at home or the workplace, or those that have a lifestyle that requires short refueling times and a similar refueling process as gasoline.

Currently, New Jersey has 2,584 EV charging ports for 92,286 registered EVs in the State. This ratio of approximately one charging port for every 36 EVs is well below the CARB recommendation of a 1:7 ratio or worst case, 1:10 ratio. To support the prospect of 100 percent ZEV-only sales in 2035, New Jersey's charging capabilities will likely need to increase significantly within the next 12 years to be in line with the California infrastructure assessment ratio of seven EVs to one charger port. (457-1)

122. COMMENT: Moving aggressively toward a zero-emission vehicle goal is supported but significant infrastructure improvements are required at a faster pace than currently planned. The availability of public DC fast charging facilities for road trips is a major concern. Because most charging will occur at home, people who own single-family homes will have the least problem installing charging equipment. The issue is far different for those who rent or live in condos without their own garage. Rules will need to be promulgated regarding EV charging in multiple family dwellings. Perhaps requiring Level 2 charging at a certain percentage of common parking spaces (increasing as EV ownership increases) or DC fast charging at a smaller number of spaces but requiring users to move their vehicles upon completion of charging. In addition, the public

fast charging network needs to be ramped up much more quickly than proposed. In April, the State announced an agreement to add 240 charging ports along the Garden State Parkway and New Jersey Turnpike by April 2033. Both the number of ports and the speed of implementation need to be significantly increased in order for the EV sales goal to be feasible. Furthermore, similar EV charging infrastructure implementation needs to be available Statewide and nationwide so that people purchasing an EV can be confident that a road trip will not only be possible but enjoyable without hassle. This may require State laws that supersede local zoning so that charging stations can be installed quickly in convenient locations. (192)

123. COMMENT: Although the rules can be great, it may be hard to get done because the State does not have the necessary charging infrastructure. The State must consider charging for people who park on the street. The State should also require any apartment complex with more than 25 residential apartments to install chargers, public and workplace charging, and municipalities to establish the necessary infrastructure for home chargers. (510)

124. COMMENT: While the transition to green energy is important for New Jersey and the nation, this proposed vehicle mandate may not be the correct way to execute it. The State should be wary of banning gas vehicles before the nation's EV infrastructure, primarily safe, reliable, and readily accessible charging is up to the task of allowing millions of people to charge their vehicles in rural and urban locations. (548)

125. COMMENT: The State must do more and faster. Major areas that need State mandates, subsidies, and/or grants are Level 2 public charging at all government facilities, such as schools, offices, prisons, and parks, and retail locations, as well as DCFC along all major corridors at every location that currently sells fossil fuels. State building codes should also require all

apartment and multifamily dwellings to install Level 2 charging for every unit that has parking and all new and existing construction to include Level 2 charging. (335)

126. COMMENT: People are still waiting to hear about the success of EVs in terms of charging ease and availability. Programs for charging stations along transportation corridors are being worked on, which will go a long way to reducing greenhouse gas emissions. (488)

127. COMMENT: The Department should adopt the rules, but should also make improvements to EV infrastructure in a manner that does not result in a monopoly for a certain charging company. (262 and 730)

128. COMMENT: The Department should adopt the rules, but also install many more charging stations so that charging is more convenient. (382)

129. COMMENT: There are not enough reliable charging stations. Mandating that all new homes built after 2025 must have EV in-home charging stations may help. (633)

130. COMMENT: While the Department should address environmental issues, adopting this rulemaking raises issues concerning the inadequate number of charging stations and/or access to charging stations. (51, 128, 146, 181, 412, 497, 507, 559, 644, and 709)

131. COMMENT: If electrification of the transportation industry and the 80X50 goals remain priorities for New Jersey, the ACC II rules provide greater certainty than the other options. However, the State will need to work rapidly to install charging infrastructure at a rate equal to ZEV mandates to address key consumer concerns, such as range anxiety. (302)

132. COMMENT: The Department should not adopt the rules because the State does not have enough EV charging equipment throughout the State to support the number of EVs envisioned by the rules. Some commenters cite specific concerns including the absence of a Statewide

charging infrastructure plan, accessibility in certain geographic locations with population and weather challenges, the proposed timeframe in comparison to the quantity of infrastructure needed, the particular need for fast chargers, the reliability and safety of public charging stations, workplace charging, and/or need for expensive retrofits to accommodate charging. (29, 32, 47, 51, 54, 56, 64, 66, 69, 81, 88, 90, 91, 92, 115, 117, 119, 128, 131, 142, 145, 190, 193, 199, 203, 204, 206, 210, 212, 237, 240, 245, 246, 249, 259, 278, 286, 287, 294, 300, 305, 305, 308, 314, 318, 321, 328, 350, 350, 351, 366, 374, 389, 411, 412, 415, 421, 421, 439, 441, 463, 475, 483, 485, 495, 498, 499, 501, 519, 527, 541, 556, 558, 571, 577, 579, 597, 598, 614, 623, 626, 627, 629, 630, 633, 636, 639, 642, 648, 661, 662, 667, 668, 681, 688, 689, 692, 693, 701, 705, 709, 716, 720, and 725)

133. COMMENT: The Department should not adopt the rules because the issue of accessibility to charging, for those not living in single-family dwellings, without a garage, or those renting, has not been addressed. Some commenters cite specific concerns including the absence of accessibility for those individuals residing in urban environments and who must park on the street, accessibility for those individuals residing in multi-family dwellings, and/or accessibility for those individuals residing in trailer parks or campgrounds, as well as space needed for charging stations. (11, 26, 33, 49, 54, 56, 65, 69, 90, 102, 112, 115, 125, 128, 131, 134, 145, 208, 209, 210, 211, 237, 246, 249, 275, 278, 279, 324, 328, 342, 350, 453, 485, 498, 499, 523, 578, 579, 597, 599, 623, 626, 626, 638, 644, 648, 693, and 709)

134. COMMENT: Mandating this type of car purchase is discriminatory to those who reside in apartments, townhome developments, or rental homes, since these dwellings do not have access

to charging facilities. The expectation that towns will provide this is bogus and misleading. Stop pushing an agenda that will only hurt the lower income population and residents. (162)

135. COMMENT: Almost a third of the New Jersey residents live in rental properties. The notice of proposal mentions requiring developers of new units to place charging stations but does not mention the same requirement for existing rental properties, such as apartments or condos. There could be various reasons why charging equipment is not installed, including existing infrastructure. The only mention of the charging stations in existing rental properties is in the "Multi Unit Dwelling Electric Vehicle Charging (EV) Toolkit." This is a big obstacle in the EV adoption. Residents with EVs who live in an apartment complex without charging equipment must charge elsewhere. This forces residents to charge at fast charging stations often which is not good for a battery's long-term health. Charging at rental properties must be addressed equally with charging at new developments. Otherwise, the EV adoption will remain low for residents at rental properties where most of the working class live. Any EV mandate must consider the time needed for existing rental properties to complete infrastructure upgrades for charging. (504)

136. COMMENT: The purchase of an EV is only one hurdle. The rules will require massive infrastructure changes to work. Rather than assuring drivers that there will be financial incentives to help purchase cars, the Department should explain how this would work on a practical level. How to maintain the car is a massive hurdle that is not being addressed. (644)

137. COMMENT: The rules ignore the reality of cost and charging infrastructure that make EVs impractical and unaffordable. The cost of retrofitting an older apartment building to be able to accommodate charging for residents will outweigh any minor cost savings over a gas refill. If there is no home charging, the alternative would be to use charging stations elsewhere, but these

options such as at workplaces are also limited. With no charging available, what solution does the Department have to offer if one needs a new vehicle and the only option is an EV that cannot be charged? (324)

138. COMMENT: Pursuant to the ACC II scenario, Sonoma estimated that 2.5 million light-duty ZEVs will be registered in New Jersey in 2035. The California ISOR report estimates one charging station is needed for every 8.7 EVs. Thus, 287,256 charges would be needed by 2035. While the Department seems quite proud of funding 5,271 charging stations, this seems to be woefully short. A 2022 study reported by NJ Spotlight news indicates New Jersey ranks 28th out of 50 states for available public chargers. It appears the infrastructure necessary to support this program is significantly lacking, particularly for the disadvantaged community and those living in multi-family dwellings. Forcing a change without the supporting infrastructure is folly. (102)

139. COMMENT: While the evolution to a transportation environment that has reduced dependence on gasoline-powered cars is needed, that evolution cannot succeed without a more robust effort towards creating an adequate charging infrastructure. Thus, the requirement that all automobile sales after 2030 be EV or PHEV cars should be delayed until plans are in place to first install a charging infrastructure that can service the expected number of non-gasoline cars. The notice of proposal fails to adequately address the need for a robust public charging infrastructure that can meet the needs of electrically powered vehicles in the same way that gasoline stations currently meet the needs of ICE cars. While there are brief mentions of the need to build sufficient charge points, no information is provided regarding any attempt to actually model the number of public charge points when all new cars sold will be BEVs or PHEVs, especially for renters who will be dependent on public chargers. (128)

140. COMMENT: The Department must consider how many households lack the electric supply to support charging and will need to upgrade their electric boxes and wiring, and the cost. (129)

141. COMMENT: By mandating ZEVs, what improvements have been earmarked for the State's infrastructure, including the number of charging stations and electric supply? (122)

142. COMMENT: As public charging (other than one specific charging network) is limited, there should be a proactive effort to encourage all hotels and bed and breakfast establishments to make available at least Level 1 (household 120 VAC outlet) charging. This would go a long way in moving forward the EV adoption. (606)

143. COMMENT: If the rules are adopted, new home construction should be required to install EV chargers. (558)

144. COMMENT: Houses are not ready to switch to EVs. (300)

145. COMMENT: Access to charging infrastructure may not be evenly distributed across all communities, which could disadvantage lower-income residents and those living in apartment buildings with limited off-street parking or underground garages. They would be forced to compete for the limited charging stations that cities and towns might install in local parking lots. (485)

146. COMMENT: According to a 2017 National Renewable Energy Laboratory (NREL) report, 88 percent of EV charging occurs at home, making access to home charging a top priority for customers considering an EV. The converse is also true: lack of access to home charging is a major barrier to the EV adoption. (457-1)

147. COMMENT: There are not enough public or private chargers. People living in urban areas, apartments, or condos, will not have access to convenient charging even if they can afford an

EV. For example, Vineland has 81 apartment complexes for a total of 5,819 units. If each apartment renter has one car, assuming just one car per apartment, the total number of cars is almost 6,000 that need to be charged. Reliable charging is necessary for workers to get to work on time. (319)

148. COMMENT: New Jersey also must consider challenges associated with the power sector and EV charging infrastructure. According to one study, "as the EV market expands, access to home charging is likely to decrease over time" because "most early EV adopters live in detached homes where it is relatively easy to install a home charger, and have relied on low-cost, overnight, at-home charging for their primary charging needs." Additionally, modelling results from the report quantify that over 890,000 charging ports (for example, private and shared access and public direct-current fast chargers) will be required by 2030. Thus, there are other issues to consider before adoption of the ZEV requirements included in ACC II. (251)

149. COMMENT: The Department should not adopt the rules because recharging EV batteries is not convenient at this time. Some commenters cite specific concerns including the length of time it takes to charge the battery and/or the availability of chargers when and where needed (that is, fear of running out of range without a nearby charger and/or fear that the charger you can access will not be functional). (7, 25, 50, 51, 55, 63, 65, 92, 102, 115, 128, 135, 142, 143, 157, 160, 167, 173, 182, 188, 193, 200, 221, 223, 232, 271, 275, 298, 309, 348, 350, 351, 372, 378, 428, 441, 467, 485, 498, 501, 518, 527, 528, 538, 541, 543, 544, 546, 571, 577, 588, 608, 619, 625, 638, 639, 648, 656, 662, 663, 709, 716, and 725)

150. COMMENT: The 350 kw generator that is used to charge electric cars uses 12 gallons of diesel fuel per hour. It takes three hours to charge an electric vehicle to go 200 miles. That is 36

gallons for 200 miles. Compare this with the time it takes to put 36 gallons of gas into a gas-powered vehicle. (11)

151. COMMENT: Charging times for current BEVs are dramatically longer than the time to refuel an ICE vehicle. According to the Department of Transportation, Level 2 chargers (the type most likely to be generally installed) take up to an hour to charge a PHEV and could take four hours or more to charge a BEV. One car being charged could tie up a charge point for an hour or more, making it unavailable to other drivers, as well as creating significant inconvenience for BEV and PHEV owners. The ISOR publication referenced in the notice of proposal makes only scant reference to the excessive charge time problem. (128)

152. COMMENT: New Jersey does not yet have the infrastructure to accommodate EV charging. Depending on the level of EV, homes may need upgrades for special charging equipment, which is a cost added to the purchase or lease of an EV. Charging an EV is extra challenging for individuals who live in multiple dwelling developments where most apartments or condominiums do not have charging stations. In cities where parking is extremely limited and rarely available in front of someone's home, EV owners will not have the convenience of charging their vehicles overnight. (9)

153. COMMENT: Citizens who live in large apartment buildings are understandably concerned about having sufficient access to residential charging stations. Between the significant cost of getting the charging station installed, the difficulty of running power from the building to the parking structure, and the long wait times involved with sharing chargers across many residents, renters are likely to have to rely on public charging stations far more than homeowners. Unfortunately, the public charging infrastructure is also substantially lacking, and only a small

percentage of the EV chargers in the State are the DC fast chargers needed for efficient on-the-go charging. (2)

154. COMMENT: The ACC II rule may not be feasible in practice when considering the housing choices available to New Jersey residents. A more cautious approach is merited considering the number of New Jersey residents who rent or live in multiple-unit dwellings. The State's continued progress in incentivizing the purchase and use of electric vehicles and charging stations is strongly supported. However, people who rent will be effectively unable to purchase a new car from a New Jersey dealer without the landlord installing electric chargers. Also, if living in a multiple unit dwelling or housing with a parking garage, the cost to install electric chargers could be much higher than a single-family home. Installing numerous electric chargers at one location could require overhauling the electric system serving the multiple unit dwelling. The Department is urged to use caution and not prohibit the sale of non-electric vehicles until these dilemmas are given the consideration they desire. (4)

155. COMMENT: ACC II was designed for the California marketplace without regard to the vastly different conditions on the ground here in New Jersey. With respect to publicly available EV charging infrastructure, New Jersey needs a greater commitment to support ACC II. According to the Department of Energy, Alternative Fuel Data Center, as of April 6, 2023, New Jersey has only 943 public locations that support 2,671 electric vehicle service equipment (EVSE) ports, with 10 Level 1 chargers, 1,838 Level 2 chargers, and only 823 DC Fast chargers. New Jersey currently has 90,000 registered EVs, and most public chargers are located along the Garden State Parkway and New Jersey Turnpike. Adopting ACC II before New Jersey ramps up EV infrastructure development is a classic case of putting the cart before the horse. Though

dealers are all in and doing their part to increase EV charging infrastructure, there are expenses that must be considered. Also, in addition to the expense, the biggest obstacle to achieving greater EV infrastructure expansion is the utility companies' preparedness to upgrade electric capacity at dealership locations that are ready and willing to install additional chargers. That preparedness challenge must be offset by the government's creation of more public EV charging infrastructure, and that infrastructure must be non-proprietary. (27)

156. COMMENT: The notice of proposal included only limited analysis to confirm whether charging infrastructure is adequate to meet consumer demand and if not, how much additional cost would be necessary to adequately build out the charging infrastructure or maintain a reliable electric grid. The Department only indicated that it has awarded $240 million since 2019 and utilities have committed $215 million, without indicating the source of funding. (647)

157. COMMENT: The infrastructure to support electric vehicles does not yet exist. It seems unrealistic that all places where vehicles are parked daily for eight hours or more (such as, work places, schools, and commuter parking lots) can be equipped to support a large number of electric vehicles in the rules' time frame. (278)

158. COMMENT: Range anxiety is one of the most frequently cited obstacles to EV sales. A robust Statewide network of EV charging infrastructure will build consumer confidence and support the growth in consumer demand for these vehicles. The State should develop a strategic plan to guide public and private deployment of EV infrastructure to support the broad portfolio of charging needs at home, work, around town, at destination locations, and on the road. (202)

159. COMMENT: From a charging perspective, New Jersey cannot put enough chargers in place at this point in time even at homes to be significant. Further, there are a lot of people who

live in apartments, condos, and other densely populated areas where it is not possible to put enough charging stations in to be convenient for people. The Department cannot tell people they need to walk blocks in order to charge their vehicles. (113)

160. COMMENT: The environmental impact of the large-scale infrastructure necessary to repeatedly charge batteries is not a trivial matter and must be addressed. (267)

161. COMMENT: The Department must consider the environmental impact of building out the necessary charging infrastructure across the State. (31)

162. COMMENT: The rules will require a huge increase of immense charging stations and buildout of electric generation. (664)

163. COMMENT: New Jersey residents who need to drive long distances and have no choice but to own or rent a 100 percent EV will need assurance that the nationwide infrastructure of charging stations is adequate for long-distance travel. Other states must have ample charging stations along the highway and in rural/isolated areas to accommodate New Jersey EV drivers. (709)

164. COMMENT: Remember that people who buy cars in New Jersey drive in other states. The whole country should have the proper infrastructure to support all EVs before the State mandates that people in New Jersey buy only EVs. (614)

165. COMMENT: Infrastructure to drive across the country or to other states is not there. (633, 648, and 518)

166. COMMENT: While New Jersey may increase the number of public charging points, charge point availability could easily remain an issue for anyone traveling out-of-State, especially

commuters to New York City or Pennsylvania or anyone contemplating a long car trip. This uncertainty might be a disincentive for many prospective EV purchasers. (128)

167. COMMENT: EVs do not presently have a standard charging connection. This needs to change so that all EVs can use the same charging connection. (627)

168. COMMENT: Car makers are supporting the transition to EVs. Recently, Ford announced they are going to adopt the Tesla charging port, North American charging standard because it helps users get more reliable charging on the road. After Ford, it was General Motors and Rivian, so the availability of charging on the go is only getting better. (329)

169. COMMENT: Each EV has a different type of plug in so a driver would need to find an EV station that fits the car and is available. (518)

RESPONSE TO COMMENTS 116 THROUGH 169: As explained in the notice of proposal, a key to the success of ACC II and transition of the transportation sector is "adequate access to charging and sufficient charging points across the State." 55 N.J.R. at 1782. There are three charging levels: Level 1, which is the slowest method but anticipated to be sufficient for many drivers; Level 2, which can meet the needs of drivers who typically travel more than 40 miles a day or who want a faster charge; and DC Fast Chargers (DCFC), which offer the fastest charging speeds. See generally NJDEP, Drive Green, Chargers and Charging, at https://dep.nj.gov/drivegreen/charging/.

The ACC II rules include various requirements related to charging that are intended to enhance consumer convenience. *Id*. For example, pursuant to 13 CCR 1962.3, as incorporated by reference at N.J.A.C. 7:27-29A.7, all EVs must come equipped with Level 1 and Level 2 compatible charging cords, which will enable charging at home where the Department expects

most charging to occur. See 55 N.J.R. at 1782. A Level 1 cord plugs directly into a normal 120 V electrical outlet. Thus, if a single-family house or other residence has a garage with a 120 V outlet or a 120 V outlet on the house exterior, no electrical upgrade is required, and no charging equipment needs to be purchased to accommodate an EV purchase. However, a Level 1 charger plugged in overnight would afford only approximately 1.44kW per hour or enough charge to offset about 50 miles of driving. For EV owners with longer commutes, a Level 2 charger may be necessary, which may require the installation of a 240 V outlet of the type commonly used for an electric dryer, range, welder, or recreational vehicle (RV). The cost to install a 240 V outlet is extremely variable based on the length of cable run and difficulty, as well as local labor costs. For light-duty, private vehicles, New Jersey offers incentive programs to property owners to install Level 2 chargers www.drivegreen.nj.gov. However, as noted, ACC II requires manufacturers to provide a Level 2 charging cord with an EV, so no additional charging equipment purchase is required. In addition, the charging cord required under ACC II must fully recharge the vehicle using Level 2 in under four hours.

In addition to the Level 1 and 2 charging cord, 13 CCR 1962.3, as incorporated by reference at N.J.A.C. 7:27-29A.7, requires that all EVs are equipped with a port for DCFC. This is important as some base models of EVs recently available did not include this as a standard feature. DCFC enables an EV to be charged to approximately 80 percent within 20 to 30 minutes, and those speeds and capabilities are improving over time. DCFC would be the preferred charging method for motorists travelling longer distances who need to charge quickly.

The Department acknowledges the home charging challenges for individuals living in multi-family dwellings. For those living in apartments, townhouses, or condominium complexes

(multi-unit dwellings), the State has grant programs available to assist building managers to make EVSE available to their residents www.drivegreen.nj.gov. Moreover, as explained in the notice of proposal, recent New Jersey legislation requires electric vehicle charging infrastructure for new multi-family dwellings, parking lots, and garages. 55 N.J.R. at 1782. State law requires developers of new multi-unit dwellings with five or more units to have "make-ready" electrical infrastructure at 15 percent of the parking spaces and to install charging stations through phase-in within six years. See P.L. 2021, c. 171. "Make-ready" is defined as the "pre-wiring of electrical infrastructure at a parking space, or set of parking spaces, to facilitate easy and cost-efficient future installation of Electric Vehicle Supply Equipment or Electric Vehicle Service Equipment, including, but not limited to, Level Two EVSE and direct current fast chargers." *Id*.; see N.J.S.A. 40:55D-5. Developers must initially install charging stations in one-third of the 15 percent, followed by an additional one-third within three years, and the final one-third within six years. N.J.S.A. 40:55D-60.

For those living in highly dense urban environments that may not have access to charging at their multi-family dwelling or within a parking garage or lot, other public charging options offering Level 2 or DCFC may be the best option. The law also includes requirements to increase public charging. Developers of new parking lots and garages must install a minimum number of make-ready parking spaces in proportion to the total number of off-street parking spaces. If there are 50 or fewer off-street parking spaces, the parking lot or garage must include at least one make-ready space. If there are more than 150 off-street parking spaces, at least four percent of the total spaces must be make-ready, of which at least five percent must be accessible for people with disabilities. See 55 N.J.R. at 1782. Pursuant to the same law, the Department of Community

Affairs has also promulgated a Statewide municipal electric vehicle model ordinance that ensures consistent permitting practices for EV charging stations in all municipalities. See P.L. 2021, c. 171; https://www.nj.gov/dca/dlps/home/modelEVordinance.shtml.

Currently, in New Jersey there are 3,127 total ports, including 2,124 Level 2 Ports and 1,003 DCFC Ports. The Department recognizes that the public charging network, and specifically, fast chargers, will need to continue to expand over time to meet the need. As noted by some commenters, charging takes more time than filling a gas tank. The rate at which fast charging can replenish an electric vehicle battery is dependent on variables, such as temperature (ambient and battery), state of charge, and capability of the charging station, and vehicle. Many current EV manufacturers specify that fast charging can achieve an 80 percent state of charge within 20 to 30 minutes. Although fast charging time is longer than filling a gas tank, as noted, the Department expects most charging to occur at home. Adjusting to longer charging times at a public charging station is an inevitable part of the transition to ZEVs though battery and charging technology continues to improve charging speeds and reduce charging times.

With the adoption of ACC II, there will be a greater incentive for private investment in charging infrastructure. As stated in the notice of proposal, it is possible that new business models will develop as a result of the growing demand for public charging. 55 N.J.R. at 1785. Gasoline stations may become charging hubs and/or retail stores may offer charging as a separate service to customers. *Ibid*. ACC II provides the regulatory certainty and time for utilities and EVSE suppliers to continue expanding the public charging infrastructure to meet a more predictable timeline.

As noted by some commenters, the State and Federal governments are working on increasing at-home and public charging infrastructure. In addition to the State grant programs for private residential property and multi-unit dwelling owners explained above, the State also has grants available for light-duty charging in public spaces. The State's It Pay$ to Plug In program has grants available specifically aimed at workplace charging, as well as major travel corridor fast charging and community charging. See https://dep.nj.gov/drivegreen/it-pays-to-plug-in/.

While the Department cannot deploy EVSE outside of State boundaries, it is working with several organizations and neighboring states to collaborate on strategic charging locations on interstate corridors. There are also several Federal programs designed to accelerate the installation of EVSE nationwide. These programs will serve to increase access to electric vehicle charging for New Jersey motorists travelling out-of-State. The NEVI program administered by the Federal Highway Administration (FHWA) has $5 billion in grants for EV charging infrastructure along identified alternate fuel corridors, which are national network of national highway system corridors as designated by the FHWA. Additionally, the Charging and Fueling Infrastructure Discretionary Grant Program, also administered by FHWA, has another $2.5 billion in grants for EVSE installation. This second FHWA program prioritizes charging station installation in rural areas, predominantly low-income areas, as well as areas with a high ratio of multi-unit dwellings. See https://www.fhwa.dot.gov/environment/nevi/; https://www.fhwa.dot.gov/environment/cfi/.

Another Federal program offering assistance to businesses looking to install EVSE is the Alternative Fuel Vehicle Refueling Property Tax Credit administered by the Internal Revenue

Service (IRS). This program offers tax credits of up to $100,000 to businesses that install EVSE or other qualifying alternative fueling stations. See https://www.irs.gov/credits-deductions/alternative-fuel-vehicle-refueling-property-credit. All of these Federal programs are part of the Inflation Reduction Act and the Infrastructure Investment and Jobs Act. See https://www.fhwa.dot.gov/bipartisan-infrastructure-law/nevi_formula_program.cfm.

Since 2019, the Department and the BPU have awarded nearly $240 million in grants for charging stations and electric vehicles, part of which has funded 2,980 charging stations with 5,271 ports at 680 locations. New Jersey electric utilities have committed $215 million for make-ready infrastructure funding for public, multi-unit dwelling, and workplace light-duty EV charging stations and residential chargers. 55 N.J.R. at 1782. As part of the Federal Infrastructure Investment and Jobs Act, New Jersey will receive millions in infrastructure funding from the Federal government to build-out an electric vehicle fast charger network on major travel corridors. Although the Federal requirements are for fast charging stations every 50 miles, New Jersey is receiving enough funding to provide fast charging stations every 25 miles on designated corridors. For additional details regarding this effort, please refer to New Jersey's NEVI Deployment Plan. See https://dep.nj.gov/wp-content/uploads/drivegreen/pdf/nevi.pdf. As the State and Federal government continue to invest in public charging infrastructure, there will be a greater incentive for private investment in charging infrastructure.

As discussed more fully in the Response to Comments 170 through 195, the Department recognizes that electric grid upgrades may be necessary and will continue to work with the BPU and other agencies directly responsible for ensuring reliability. The Department anticipates that the regulatory certainty that ACC II provides will make planning for these upgrades more

feasible as the agencies work to manage the current load and address any challenges in meeting predicted increases in the load that may result from the increasing number of EVs.

To address concerns regarding the environmental impact of charging stations, the Department considered the following scenarios. As the Department anticipates that most EV charging will take place at home, such charging would be accommodated with a Level 1 or Level 2 charging station. These units may be either wall mounted or in-line on the power cord itself and, thus, lay on the ground. Level 1 and 2 charging stations of this type are typically around the size of a couple of paperback books, as an example. Home charging stations would have no environmental impact as they are either not permanently mounted, or they are wall mounted on existing facilities. Public Level 2 charging stations are designed to be more robust and weather-resistant and are physically larger. Public Level 2 charging stations are either wall-mounted (for example, in a parking garage), mounted on a small pedestal with a concrete pad, or on a pre-existing parking lot surface. As an example, Level 2 charging stations are about the size of a mailbox on a pedestal. The largest of public charging stations would be DC fast chargers. These are, for example, about the size of a vending machine and may be mounted on a similarly-sized concrete pad or on a pre-existing parking lot surface. In none of these scenarios does the Department consider the footprint of the charging station to have significant environmental impact, especially considering that public charging stations are typically co-located with existing paved parking surfaces.

Electric Grid Capacity and Power Outages

170. COMMENT: California, the state with the most ZEVs in the country, has proven that ZEVs actually result in very little grid upgrade costs. From 2012 to 2017, the number of EVs in three of California's utilities service territories increased by a factor of 16, but the number of EVs that resulted in service line or distribution system upgrades was fewer than 0.2 percent. Put simply, very few EVs required any distribution system or service line upgrades. As the State anticipates an increasing EV market share, ACC II would be an important signal to utilities and decision makers to take electricity demand from EVs into account in their planning. ZEVs can, furthermore, be used as a grid resource and as battery storage to alleviate electricity outages, especially with proper utility investments and rate designs that incentivize, and thereby shift, vehicle charging to the times of day when the grid is underutilized. The grid can handle and benefit from the growing ZEV market, but again, in order to plan ahead, grid planners and utilities, like the auto industry, need certainty to begin making the investments to adapt and meet the needs of ZEVs through 2035 and beyond. (292)

171. COMMENT: Adopting ACC II is necessary, but additional complementary policies and programs will be necessary to support a complete transition to an electrified transportation sector. The NEVI Formula Program provides funding for a Statewide build-out of EV charging stations is a good start, but will not be sufficient for the State's needs. New Jersey needs to further support the build-out of charging infrastructure throughout the State and, of crucial importance, ensure the grid manages the additional electric load to the benefit of all electric customers. Given that ACC II requirements ramp up incrementally over time, there is time for the State to develop a path forward to ready the grid and facilitate a robust charging

infrastructure network in tandem with the regulations. Adopting ACC II also signals to the private market that New Jersey is committed to a zero-emission future. These policy commitments historically stimulate private investments. (234)

172. COMMENT: Expanded EV deployment will lead to significant changes to the 24-hour electricity demand cycle. By incorporating emerging technologies, such as power storage and grid-scale battery technology, using smart software to optimize charging schedules, capitalizing on time-of-use rates, and ensuring strategic charging buildout, transportation electrification has the potential to become a mechanism for reinforcing and stabilizing U.S. electricity infrastructure. (79)

173. COMMENT: The State must ensure grid resiliency and utility electric rates that provide low-cost EV charging if the State hopes to achieve the ACC II ZEV requirements. The State should thoroughly review its electric grid to determine the viability of expanded access in the near- and long-term. Public confidence in the grid's resiliency will only help spur faster EV adoption. Failure to provide consistent service, particularly when the majority of EV charging is done at home, could be devasting for increased EV adoption. As part of the review, New Jersey should commit to a transparent dialogue with the utility commission and energy companies about making home and public charging affordable and convenient. In addition, the State should promote education about the different types of charging systems and suggestions about prime charging times to lessen the load on the grid. (457-1)

174. COMMENT: While the Department should address environmental issues, this rule raises concerns about the existing electric grid's capacity to address the increased demand. (38, 41, 490, 549, 559, and 620)

175. COMMENT: If there is insufficient power on the grid to handle charging stations, diesel generators will be relied on which will create emissions to power a car with no emissions. (356)

176. COMMENT: New Jersey needs a plan for how it will expand the energy grid to support the additional energy needs of electric vehicles. (44)

177. COMMENT: The Department should not adopt the rules because there is not enough capacity to support the increase in electric demand to power the vehicles. Some commenters cite specific concerns including the possibility of rolling blackouts during peak demand, restrictions on electric use, utility unpreparedness, general unreliability of and/or stress on the existing grid, grid vulnerability to cyberattack, and/or the reliability of New Jersey's aging infrastructure, as well as electric supply in extreme cold or heat and/or natural disasters. (11, 15, 24, 51, 56, 62, 63, 69, 81, 82, 86, 90, 92, 93, 94, 100, 101, 111, 112, 119, 137, 138, 142, 147, 157, 166, 167, 169, 170, 173, 179, 180, 181, 182, 185, 194, 196, 198, 199, 204, 205, 218, 219, 222, 223, 225, 235, 239, 248, 250, 261, 268, 272, 274, 276, 279, 284, 294, 299, 305, 305, 313, 314, 315, 319, 321, 322, 323, 327, 340, 348, 349, 350, 350, 356, 359, 365, 371, 374, 378, 379, 380, 381, 389, 395, 398, 401, 401, 403, 404, 412, 419, 420, 422, 425, 433, 434, 445, 446, 447, 454, 460, 464, 474, 477, 479, 491, 492, 498, 499, 501, 502, 504, 505, 506, 518, 519, 528, 529, 537, 541, 546, 551, 553, 562, 581, 586, 587, 591, 592, 594, 595, 596, 597, 605, 607, 611, 614, 617, 621, 623, 627, 628, 630, 633, 636, 639, 640, 648, 656, 661, 663, 665, 669, 674, 679, 684, 687, 688, 689, 704, 717, and 724)

178. COMMENT: The Department must first answer important and fundamental questions about electricity demand and grid capacity before adopting the rules on the aggressive timeline proposed. The Department must consider the extent of increased electricity demand due to the

rules. While the rules would certainly skyrocket demand for electricity in the State, the Department must consider exactly how much, when, and in what areas of the State. For example, based on economics, if 30 percent of the fleet were EVs, the 30 percent would not be evenly distributed across the State. The Department must determine the impact on the electric grid, the types and timing of upgrades that would be needed, and whether the upgrades can be constructed fast enough to meet the new demand. The Department must also consider the economic impact if upgrades are not constructed fast enough and power outages become more frequent. (70)

179. COMMENT: The rules will fail because the State does not have the infrastructure necessary. The State's Energy Master Plan (EMP) predicts that an all-electrification policy, of which EVs are a major part, will require a doubling or even tripling of the State's electricity demands. PJM (the regional electricity transmission organization that serves New Jersey) has expressed concern that existing power plants are being taken offline faster than they are being replaced. Renewables, which many see as the future replacement power for these plants, cannot come online either due to transmission limitations or other permitting and cost factors. Although the development of the wind industry in New Jersey is supported, supply chain, financial, and other obstacles have delayed their construction and have put in doubt the breadth and timing of the industry. The State should not mandate electrification of the transportation sector without knowing where the power will come from. Studies that show consumers can save power and costs by charging at night and shifting to a winter peak system are overly optimistic in their assumptions of consumer behavior. They also do not adequately address the supply issues. These studies may be useful were we to have a market-driven, thoughtful transition to EVs and other ZEVs. These policy options will be overrun by an EV mandate.

Equally as important as the electrical supply is that of transmission and distribution. The grid is just not adequate enough to handle the increase in supply and it is not adequate at a street level to supply enough power to people who want to charge their cars at home, which over 90 percent of EVs owners want to do. If only a few homes on a block want to charge their EVs, it is likely that the transformer on that block will need to be upgraded. Over an entire state, this is an enormous cost that will be borne by ratepayers. Each home will also need its own charging system at the cost of a few thousand dollars each.

Even if all the money were available for all the additional electricity production, all the transmission upgrades, all the distribution upgrades, all the transformers, all the home and public charging systems, it is very unlikely that there will be enough equipment available to meet these needs. This is especially true given the other states that are also seeking to impose the same EV mandate. However, even if the equipment supply issue were resolved, it is unlikely that there will be enough trained professionals to build these facilities and install all the chargers. There is a workforce crisis across many technical professions, including many of the ones who are needed to build out an EV ecosystem. (113)

180. COMMENT: To the extent EV penetration does increase at any significant amount, the State lacks the appropriate electricity infrastructure to handle the surge in demand posed by mass adoption of EVs. Such a situation could lead to dangerous spikes in energy usage, resulting in rolling blackouts and a treacherous electric grid, which has occurred in California. In a February report, the regional grid operator, PJM, warned that overly rigid greenhouse gas emission reduction targets are putting grid reliability at risk, threatening supply, and likely driving consumer prices higher. The report notes thermal retirements are on track to exceed supply from

renewable electricity generation additions, noting policy factors helped drive and could continue to greatly exacerbate this situation. To the extent greater electric vehicle adoptions occurs in concert with mandates like those New Jersey is seeking to adopt, it will amplify grid reliability concerns and certainly drive rates even higher; leaving transportation consumers that do choose EVs paying even more for energy needed to charge their vehicles, if the electricity will even be available when needed. Again, California provides a cautionary tale in this arena. Consumers in California now experience the highest electricity prices in the nation outside of Hawaii. The state is also prone to rolling blackouts. Bottom line: charging an EV in California is often more expensive than filling up a gasoline powered automobile. (342)

181. COMMENT: As the Department considers options to reduce transportation emissions, it should consider and fully analyze whether the electric grid is capable of supporting the mandated number of vehicles. (251)

182. COMMENT: If the power grid and related infrastructure are not ready to absorb the demands of thousands more electric vehicles hitting the highway every year, the State could lose its grid reliability and be subject to more frequent outages. For example, in California, despite the state being a top producer of electricity, residents still experience frequent and arbitrary power outages. If California, the initiator of ACC II, cannot handle the increased demands on its energy infrastructure, it seems unreasonable to think that New Jersey would be able to. (227)

183. COMMENT: Electricity generating units must be available on demand. The electricity demand from the number of chargers proposed on highways will impose a considerable drain on available generating capacity. The Department has not analyzed the anticipated usage by long distance travelers. (350)

184. COMMENT: The electricity needed for all EVs could result in a cap or quota on electricity usage, which could affect residential or charging stations, which in turn would affect public movement. (504)

185. COMMENT: The rules would require more generation facilities, transmission lines, and distribution lines to meet the increased demand. (627)

186. COMMENT: The rules would make a monopoly of the power grid, which is not the correct solution to the pollution problem. (143)

187. COMMENT: Fossil fuels power the grid, which will need to be increased to keep up with demand. (717)

188. COMMENT: Everything electric is not sustainable and/or environmentally responsible. (581 and 605)

189. COMMENT: The aggressive ZEV goal raises a major concern about electric grid reliability. In October 2012, in the wake of Superstorm Sandy, many parts of New Jersey were left without power for an extended period of time. While gasoline was hard to find for the first day or two, it soon became readily available both for transportation and for generator use. If a significant proportion of residents impacted by extended power outages owned EVs in the aftermath of Sandy, they would have been stuck without transportation. While climate change makes the switch to EVs more important than ever, it also means that severe weather that will lead to extended power outages is also more likely. Any mandate for EV implementation needs to include contingency plans to allow for mobile DC fast charging stations to be quickly deployed to impacted areas. Ideally, they will be powered in a green manner (for example, large

batteries charged elsewhere), but unfortunately, they may need to be diesel generators at first. (192)

190. COMMENT: The electric grid is not stable enough to support EVs. If an EV cannot be charged because the power is out, one's ability to get to work and earn a salary would be affected. This would be a serious burden. (51)

191. COMMENT: The Department should not adopt the rules because electric vehicles will not be capable of functioning if there is an extended power outage. (101, 111, 229, 268, 274, 298, 309, 492, and 501)

192. COMMENT: In any emergency or natural disaster, vehicle transport can be a life-critical service. Our society is more resilient when there are more options to provide that transport. Making this life-critical service solely dependent on electricity verges on foolhardy at a time when electricity service is becoming less reliable. (Blunt, 2023). New Jersey should take a more careful look at how it can ensure its rules are resilient to the unpredictable twists and turns of energy, economic, and transport policy. (139)

193. COMMENT: This initiative has an unrealistic implementation timeline because there is already insufficient electric infrastructure available in rural areas of the State. This is a major concern to the agricultural industry since a large percentage of the State's agricultural products come from rural areas with the least infrastructure. Residents have already encountered limitations in southern counties due to the grid being insufficient resulting in disapproval of some solar energy generating installations. Instead of ACC II, the Department should incentivize the use of EVs and wait until a time when the State's electrical infrastructure becomes adequate and equitable for all before mandating an increase in EV use. (241)

194. COMMENT: Investments must be made to upgrade the electric grid in the entire State, including rural areas and not just the suburbs. (120)

195. COMMENT: To ensure grid reliability is not compromised, the Department should quantify the total gap between consumer demand for charging and electricity supply, as well as additional load on the power grid. (647)

RESPONSE TO COMMENTS 170 THROUGH 195: The Department recognizes the concerns about the sufficiency of the power supply needed to meet the demand of EVs. As the Department noted in the notice of proposal, "the State will need to ensure that distribution lines and electricity supply meet the increased electricity demand, while monitoring potential ratepayer impact for any upgrades or buildout needed. The New Jersey Board of Public Utilities (BPU), in late 2022, released a report on the modernization of New Jersey's electric grid and is advancing regulatory changes and working with stakeholders to further develop regulatory and policy proposals based on the report's recommendations. https://nj.gov/bpu/newsroom/2022/approved/20221110a.html." 55 N.J.R. at 1782-83.

The Department expects that the regulatory certainty that ACC II provides will make planning by PJM (the regional transmission organization that coordinates the movement of wholesale electricity in all or parts of 13 states, including New Jersey), the State's electric utilities, and the BPU more feasible. As these entities continue to work to manage the current load and address any challenges in meeting future load requirements, they will have a roadmap in the form of the number of EVs that they can reasonably expect to be added each year based on the annual ZEV requirements. The Department is not aware of a workforce crisis, but the Department notes that jobs related to the clean economy are growing at a fast rate, which is good

for the State's economy. See Green Jobs for a Sustainable Future, NJ Council on the Green Economy (September 2022), at https://www.nj.gov/governor/climateaction/documents/CGE%20Roadmap.pdf.

The Department recognizes that there are concerns about charging vehicles during power outages. However, ICE vehicles need gasoline or diesel fuel to run – fuels, which can also be subject to shortages, particularly during bad weather. Since gasoline and diesel fuel are stored in underground storage tanks at service stations, electricity is still required to pump these fuels into a vehicle. ICE vehicle drivers must prepare for inevitabilities, like filling gas tanks prior to a bad storm. EV drivers will need to take similar measures, like charging cars before a bad storm or during off-peak hours.

CARB stated that it "expects, supported by the record, that California's electric grid will be capable of meeting additional demand from ACC II" and addressed concerns about grid blackouts. See CARB FSOR Appendix A at 28. An article in National Geographic on the history of blackouts in California (https://education.nationalgeographic.org/resource/case-study-california-blackouts/) noted that such rolling blackouts began in 2000, well before electric vehicles were in common usage.

Security

196. COMMENT: EV systems are vulnerable to hacking. (704)

197. COMMENT: EVs that are constantly connected to the internet or database somewhere raise data collection and privacy concerns, as well as concerns of outside manipulation of the vehicle or illegal hacking. (543)

RESPONSE TO COMMENTS 196 AND 197: The Department's adoption of the ACC II program incorporates by reference, at N.J.A.C. 7:27-29A.7, 13 CCR 1962.5, Data Standardization Requirements for 2026 and Subsequent Model Year Light-Duty Zero Emission Vehicles and Plug-in Hybrid Electric Vehicles. This section of regulations requires EVs to conform to the same standards for data collection, storage, transmission, and connection as all other light-duty gasoline and diesel vehicles. In other words, data security will be treated the same way in EVs as in other vehicles and will not present any unique data vulnerability just because they have an electric drivetrain. The specific standards are established by the Society of Automotive Engineers (SAE) and are fully referenced at 13 CCR 1962.5. A manufacturer must test EVs to ensure compliance with the SAE protocols and standards. Failure to comply subjects a manufacturer to enforcement action.

Environmental and Health Impacts

Health

198. COMMENT: New Jersey can significantly benefit from a widespread shift to zero-emission transportation and electricity. This transition could result in $43.6 billion in public health benefits for the State, 3,960 premature deaths avoided, 92,400 asthma attacks avoided, and 464,000 lost workdays avoided cumulatively by 2050. (292, 329, 494, 590, and 680)

199. COMMENT: There are only two counties in New Jersey that received an A grade for ozone pollution in the Lung Association's annual state of the air report, but there are over 750,00 residents living with asthma, including more than 100,000 children. Millions more residents are at greater risk due to harmful air pollution associated with other lung and heart diseases and other

vulnerabilities. The Lung Association's report highlighted the benefits of increasing zero emission technologies in new passenger vehicles, medium and heavy duty trucks, along with clean energy resources. The assumptions in the study track closely with the ACC II and previously adopted Advanced Clean Trucks standards. By 2050, the ongoing transition to zero emissions can translate to $43.6 billion in cumulative public health benefits in New Jersey, 3,960 deaths avoided, 92,400 asthma attacks avoided, and 464,000 lost work days avoided. The ACC II standards are especially important as climate change amplifies the conditions for unhealthy air, driving the greater likelihood of ozone pollution formation. These conditions place a greater inequitable burden on the most vulnerable and disadvantaged communities. The ACC II rules are a critical health intervention to save lives, prevent tens of thousands of asthma attacks, and lost work days by delivering cleaner air to all communities while also taking an important bite out of climate pollution. (590)

200. COMMENT: The American Lung Association estimates that implementing zero emission standards like the ACC II rules could prevent nearly 4,000 premature deaths, 92,000 asthma attacks, and avoid over 400,000 lost work days by 2050. (130)

201. COMMENT: The rules will bring social benefits and significant strides in improving air quality. For years, the American Lung Association has given the State failing grades in several counties for air quality. Families are already suffering from air pollution and expensive health problems, especially those in already overburdened communities. Reducing transportation emissions will enhance the health and well-being of citizens. Cleaner air means fewer respiratory illnesses, lower healthcare costs, and overall improved quality of life for everyone in the State, especially those in overburdened communities. (18)

202. COMMENT: ACC II is a common-sense rule that would bring over $97 billion of economic health, air quality, and climate benefits to New Jersey, and will help to reduce climate harming pollution by 243 million metric tons while also reducing NO_x emissions by 93 percent by 2050. (291)

203. COMMENT: ACC II will not only benefit the health of New Jersey's residents but also accelerate the growth of the State's economy. A report commissioned by Sierra Club and the National Resources Defense Council found that by adopting ACC II by the end of 2023, New Jersey has the potential to generate $97 billion in cumulative benefit by the end of 2050. (330)

204. COMMENT: New Jersey has one of the highest rates in the country of fossil fuel pollution, and transportation contributes 46 percent of our greenhouse gas emissions Statewide. Removing tailpipe emissions would have a sizable impact on health outcomes in the State and health co-benefits from decreased air pollution would substantially outweigh implementation costs. The full scope of the impact of fossil fuel pollution on public health is more fully understood now. The World Health Organization estimates that air pollution from fossil fuel combustion results in 13.7 million premature deaths, which amounts in one in four deaths being preventable, and many times more people experience poor health from everything from cancer, heart disease, dementia, increased hospitalizations, and much more. Also, the health effects of many toxics are often only uncovered years after millions have been exposed. New Jersey would not be the first state to make the transition to EVs. In California, as residents rapidly transition to EVs, the health impacts were exactly what we as physicians would expect. As EV adoption increased in a given zip code and air pollution dropped, so did asthma-related emergency room

visits, such that the health benefits of EVs in local communities were realized directly by those in that community. (127)

205. COMMENT: Electrification will lead to significant emissions reduction and improved public health outcomes. Adequate regulation of vehicle emissions through programs such as ACC II is critical to meeting the U.S. targets under the Paris Climate Agreement while protecting American communities from avoidable increases in adverse health outcomes. (79)

206. COMMENT: As more EVs are on the road, there will be fewer greenhouse gas emissions and fewer co-pollutants. Adopting ACC II is a sound policy for communities that have disparaging impacts from pollution as well as the State's environmental justice (EJ) communities. The rules are good public health and environmental policies. (151)

207. COMMENT: The Department should adopt the rules because they will reduce harmful air pollution from ICE vehicles that can cause negative health impacts such as asthma attacks, heart attacks, lung and cardiovascular emergencies, and even premature death. (535 and 590)

208. COMMENT: Tailpipe emissions contain harmful pollutants that further degrade air quality and put all communities in the State at risk. It is clear that vehicles operated in densely populated New Jersey have a significant impact on ozone as well. Thirteen out of 15 counties have reported air quality that received poor grades from the American Lung Association due to high ozone days. New Jersey's historically high ozone levels are exacerbating race- and income-based health disparities and have a major impact on the State's environmental justice communities. For example, the EPA's EJ screen tool indicates that Trenton's surrounding area is in the 80th to 90th percentile for the ozone EJ index, which combines ozone levels with demographic data by averaging populations of low income people and people of color. In other words, only about 10

percent of the U.S. population has worse ozone pollution impacts when considering the demographic factors of income and race. Emergency department visits for asthma are more than five times higher for black New Jerseyan residents than other residents. Reducing NO_x emissions an ozone precursor is therefore an essential aspect to mitigate the adverse and unjust health impacts affecting New Jersey residents. The current fossil-fuel centered transportation infrastructure is directly harming residents' public health and quality of life. To address this air pollution and environmental injustice, the State must curb vehicle emissions as soon as possible. (534)

209. COMMENT: A recent American Lung Association report showed cleaner cars could have upwards of $43 billion in public health benefits for New Jersey residents. (85)

210. COMMENT: Moving towards clean cars means reducing toxic co-pollutants like NO_x, SO_x, particulate matter, and ground level ozone. This is particularly important in high-traffic areas like highways, but also in neighborhoods, as car and truck traffic has increased over the years. The entire State does not meet the Federal air quality standards for ozone, and 13 out of 15 counties in New Jersey received poor grades from the American Lung Association due to high ozone days. Electric vehicles have no point-source emissions, which means significant reductions in ozone and improved public health from the transition to EVs, which will be accelerated through adoption of ACC II. (461)

211. COMMENT: ACC II will improve public health and reduce health costs in communities. Strong policies that result in improving air quality and access to cleaner transportation are critical for improving public health, addressing inequities, and preventing further economic strain. Reducing respiratory illness and hospitalizations lead to more disposable income for individuals

and families and help reduce the financial pressure on the healthcare system. As commercial vehicles in the State's fleet and employees' personal vehicles cross State lines, impacts will also extend across State lines. New research shows that combined with a 90 percent clean energy grid, electrifying all new cars and trucks by 2035 would prevent 150,000 premature deaths and avoid 1.3 trillion in economic and health costs by 2035. (201)

212. COMMENT: The transportation sector, which is crucial for the State's economic prosperity, is the biggest emissions problem. New Jersey traffic harms our air quality and health, especially in communities nearest major traffic corridors and environmentally overburdened communities. ACC II will replace fossil-fuel vehicles with better, cleaner alternatives and thereby reduce harmful co-pollutants like NO_x, sulfur oxides, PM, and ground-level ozone concentrations. The Department should adopt the rule to protect environmentally overburdened communities. (74)

213. COMMENT: Reducing greenhouse gas emissions from transportation is crucial to addressing both the climate crisis and protecting the health of New Jersey residents. In New Jersey, cars, trucks, and buses are among the largest drivers of air pollution plaguing the State. The ACC II standards will help New Jerseyans breathe easier, live longer, and lead better lives. Frontline communities will benefit the most from the reforms. The effects of the ACC II are critical to reducing the equity gap. (680)

214. COMMENT: ACC II will contribute to the creation of significant public health benefits. (376 and 685)

RESPONSE TO COMMENTS 198 THROUGH 214: The Department acknowledges the commenters' support of the adopted rules. The Department participated in an environmental and

economic analysis conducted by Sonoma Technology, Inc., which included estimates of the monetized health benefits, 55 N.J.R. at 1782-1785, but acknowledges that some commenters have submitted independent studies with respect to the health impacts of local air pollution and greenhouse gas emissions. Also, though the Department's estimates may differ from the specific figures in the analyses and studies provided by commenters, the Department agrees generally with the commenters' assertions that the adopted rules will provide overall economic benefits, in the form of health benefits, for residents of the State.

Emissions

General

215. COMMENT: The Department should adopt the rules because they will reduce transportation emissions throughout the State. (535 and 590)

216. COMMENT: The ACC II rules are an important step to mitigating environmental impacts by accelerating the number of cars on our roads that do not emit tailpipe pollution and incentivizing placement of these vehicles in communities disproportionately impacted by vehicle pollution. As per analysis conducted by NRDC and the Sierra Club, by 2035, adoption of ACC II would reduce NO_x emissions by roughly 60 percent, and by 2050 would reduce emissions by over 80 percent – far in excess of a business-as-usual baseline. According to an analysis by Environmental Resources Management (ERM), if New Jersey were to adopt ACC II in 2023, by 2050 the State can expect to see reductions of up to 243 million metric tons of greenhouse gas emissions, 81 thousand metric tons of NO_x, and 7,200 metric tons of particulate matter. Zeroing out pollution from tailpipes will improve not only air quality, but also help improve health. (292)

217. COMMENT: ZEVs, which require no gasoline or diesel and emit no pollution from the tailpipes, present a critical opportunity in addressing the climate crisis by reducing pollution, protecting public health, creating U.S. jobs and green energy, and helping the U.S. lead the way globally in a cars market that is zeroing away from dependence on fossil fuels and towards a zero-emissions future. This is a life-saving policy. New Jersey is currently out of compliance with the EPA's goals for reducing ozone pollution. This failure impacts not only the health of residents of New Jersey, but also of the surrounding states. (330)

218. COMMENT: The ACC II rules are good for communities because they will lower ground level air pollution. The rules are good for the environment because they will mitigate climate change since over 45 percent of the State's emissions come from the transportation sector. (657)

219. COMMENT: Truck traffic often runs through our most underprivileged neighborhoods, putting our communities there at highest health risk – particularly due to the inequitable exposure to toxins. ACC II is an opportunity to reduce inequities in the exposure to transportation emissions, which account for 42 percent of our greenhouse gas emissions here in the State. (130)

220. COMMENT: The transportation sector accounts for over 40 percent of carbon emission in the State. The ACC II rules will result in environmental benefits. (376)

221. COMMENT: Statewide action must be taken to protect our communities, especially underserved communities that are often impacted first and worst by vehicle emissions and climate change impacts. (685)

222. COMMENT: As a State between urban centers like New York City and Philadelphia, New Jersey is densely populated and heavily trafficked. The transportation is the State's dirtiest,

accounting for 34 percent of New Jersey's greenhouse gas emissions. Greenhouse gas emissions exacerbate the climate crisis and increase the risk of more extreme weather events, including hurricanes, severe rainfall, and heat waves. ACC II must be adopted for cleaner transportation. (534)

223. COMMENT: The recent Statewide strategic climate action plan details that the State will need at least 4.5 million PHEVs on the road by 2035 to meet the State's emissions goals. Fossil fuel prices are expensive and volatile, and transportation is the number one contributor to the State's air pollution. By promoting electric and fuel-efficient cars, the State can reduce its carbon footprint, lower smog-forming emissions, and decrease fossil fuel reliance. The State will benefit from better air quality. By 2035, the State will see nearly three-quarters reduction in NO_x and CO_2 emissions compared to today, but only if the State moves quickly. (18)

224. COMMENT: The transportation sector is the largest source of climate-harming pollution in New Jersey, generating roughly 35 percent of the State's climate pollutants. Within the transportation sector, more than 90 percent of climate pollution comes from passenger cars and trucks. A key strategy to decarbonize this sector is accelerating the transition to a zero-emission vehicle fleet. (329 and 494)

225. COMMENT: The rules should be adopted because New Jersey should prioritize reducing and eliminating greenhouse gas emissions. It should be top priority given the recent history in New Jersey that we have worsening climate. This summer was the hottest globally. The State is experiencing extreme weather, flooding, extreme heat, and air quality issues related to forest fires because of CO_2 emissions. (329)

226. COMMENT: Adoption of the ACC II rules will set the State on a path to lower vehicle emissions and a healthy transition to electric vehicles and cleaner air. The transportation sector accounts for 34 percent of the State's greenhouse gas emissions, making it the largest emissions source in the State. Greenhouse gas emissions exacerbate the climate crisis and increase the risk of more extreme weather events, including hurricanes, severe rainfall, and heat waves. Tailpipe emissions also contain harmful pollutants that further degrade air quality and put all New Jersey communities at risk. Vehicles operated in the densely populated State also have a significant impact on ozone. Due to high ozone days, the American Lung Association gave poor grades to 13 out of 15 counties in New Jersey that reported air quality data. (535)

227. COMMENT: Given that roughly 35 percent of all climate pollutants in New Jersey are transportation related, New Jersey will not be able to meet its greenhouse gas reduction mandate (50 percent by 2030) and protect communities and people from the acceleration of multiple climate impacts without aggressive plans to electrify various aspects of the transportation sector including cars, trucks, buses, utility vehicles, and rail. This means that benefits of ACC II cannot just be for the more affluent but must also be for New Jersey car owners more likely to look for and purchase electric cars used on the secondary market. These are people who more often than not cannot afford to buy a new car (whether gas or electric powered), but who might benefit from low/no fuel costs the most and cleaner air fastest due the cumulative impact of pollution and other burdens in their communities. (265)

228. COMMENT: As the Intergovernmental Panel on Climate Change (IPCC) recently reported, "Human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming," with the result that "global surface temperature" is

already "1.1°C above 1850-1900 in 2011-2020." With "high confidence," the IPCC observes that even this initial increase in global mean temperatures has resulted in "widespread adverse impacts and related losses and damages to nature and people." Nonetheless, greenhouse gas emissions continue to increase, making it "*likely* that warming will exceed 1.5°C during the 21st century and make it harder to limit warming below 2°C." In order to avoid catastrophe, the IPCC indicated that immediate greenhouse gas emissions reductions in all sectors this decade are necessary to limit warming. As the transportation sector is the largest contributor to greenhouse gases in the United States in general and in New Jersey specifically (34 percent), reducing the emissions from this sector is a key strategy to limit warming and prevent the most drastic effects of climate change from occurring. (292)

229. COMMENT: The ACC II program will accelerate EV deployment and ensure the necessary emissions reductions from ICE vehicles at the pace and scale that climate change demands. Climate change poses a significant risk to our long-term economic success, threatens the health and livelihood of communities in which we operate, and disrupts the values chains on which we rely. Transportation of people, goods, or services represents a substantial component of each of our carbon footprints and major costs for our supply chains. Strong policies are needed to help meet the State's climate and air quality goals while generating climate benefits and delivering health and economic benefits for communities and employees. (201)

230. COMMENT: The transportation sector remains the largest source of climate and health-threatening pollutants in New Jersey. As of June 2023, there were just over 100,000 EVs on the road. Adopting ACC II this calendar year is necessary to ensure that New Jersey achieves its EV

adoption and clean energy goals. Adopting this policy is consistent with established New Jersey law and policy. (234)

231. COMMENT: The rules will drive critical reductions in greenhouse gas emissions and air pollution in the State and are necessary to meet various legal requirements and State objectives. For example, the rules will cut vehicle tailpipe emissions in support of the Global Warming Response Act (GWRA), N.J.S.A. 26:2C-37 et seq., obligations and the State's efforts to comply with the Federal ozone standards. With transportation contributing more to New Jersey's greenhouse gas emissions inventory than any other economic sector, the State cannot afford to leave any emissions reductions in this sector on the table. (671)

232. COMMENT: Reducing transportation emissions has been and should continue to be a top priority for New Jersey. The transportation sector is far and away the largest contributor to greenhouse gas emissions in the State at more than 45 percent. The State has a statutory goal to reduce greenhouse gas emissions by 80 percent below 2006 levels by 2050, and the Department itself has found that New Jersey will need to reduce greenhouse gas emissions from the transportation sector by 87 percent to meet this goal. In addition, adoption of ACC II will help New Jersey comply with the 2015 national ambient air quality standards (NAAQS) for ozone. The EPA announced it is initiating a new review of ozone NAAQS to reflect the latest science. Recent scientific evidence indicates a more stringent standard will provide significant public health and welfare benefits. New Jersey should anticipate the ozone NAAQS level to be lowered, and plan to reduce transportation emissions through electrification. (339)

233. COMMENT: The rules would reduce exposure to vehicle pollution in communities throughout the State, but most particularly in so-called frontline communities in Newark that are

disproportionately exposed to vehicular pollution. Also, New Jersey should be doing everything it can to mitigate the effects of climate change with all deliberate speed. The standards represent the bare minimum of what the State should be doing. (96)

234. COMMENT: This rule will help bring hundreds of thousands of light duty electric vehicles on the road and improve upon existing emission standards for new vehicle sales in New Jersey. This will significantly reduce greenhouse gas emissions that contribute to climate change and toxic pollutants that harm human health, particularly in areas with high traffic and historically disenfranchised communities. (462)

235. COMMENT: When people talk about a public health risk, they have to acknowledge that air pollution will worsen because of climate change. Ozone will double over the course of the next three decades because of the impact from climate pollutants. There are a litany of climate impacts obviously, to say extreme weather, hurricane season, and inland flooding. All of these climate impacts are supercharged by vehicles, but cleaner cars are a positive step. (493)

236. COMMENT: The number one driver of greenhouse gas emissions is transportation. Forty percent of greenhouse gas emissions are from transportation, with most of the impacts from light-duty vehicles and medium- and heavy-duty trucks. By transitioning to ZEVs, we can significantly reduce harmful emissions, improve air quality, and mitigate the impacts of climate change. The ACC II standards are not only beneficial for residents of New Jersey who live and work in the tri-state region, but also for overburdened communities adversely impacted by the greatest degree of exposure to these and other pollutant emissions. (402)

237. COMMENT: The rules are needed to address climate change before it is too late. (58)

RESPONSE TO COMMENTS 215 THROUGH 237: The Department acknowledges the commenters' support of the adopted rules. The Department participated in an environmental analysis conducted by Sonoma Technology, Inc., complete with estimates of the emission reduction benefits, 55 N.J.R. at 1786-1787, but acknowledges that some commenters have submitted independent studies with respect to the greenhouse gas emissions. Also, though the Department's estimates may differ from the specific figures contained in the analyses and studies provided by commenters, the Department agrees generally with the commenters' assertions that the adopted rules will provide overall emission reductions and environmental benefits, for residents of the State.

238. COMMENT: The Department should not adopt the rules because climate change is unproven and/or man-made CO_2 does not contribute to global warming. (159, 171, 250, 264, 280, 327, 380, 395, 417, 445, 455, 455, 482, 539, 564, 654, 665, 710, and 721)

239. COMMENT: It is important to address climate change, but singling out automobiles and/or gas burning vehicles will not resolve the issue. (50, 274, and 490)

240. COMMENT: If the goal of the rules is to better the environment and lower pollution, manufacturers that are not in compliance should not be allowed to trade credits. (122)

241. COMMENT: The Department should not adopt the rules because they will have no measurable impact on climate change and/or air pollution globally. (30, 59, 81, 93, 100, 102, 115, 116, 155, 160, 182, 209, 214, 231, 240, 286, 297, 372, 397, 423, 433, 460, 465, 520, 524, 524, 529, 610, 664, 670, 682, 683, and 710)

242. COMMENT: In the case of PHEVs, excessive charge times could lead to reduced usage of the electric capacity and increased usage of the gasoline engine undermining the needed air quality and greenhouse gas reductions (ISOR, page 50). (128)

243. COMMENT: The rules burden consumers, while doing little to actually protect our environment. (245 and 352)

244. COMMENT: Used ICE vehicles are dirtier than new ones, while EVs will get cleaner over time because cleaner energy resources are deployed. (329)

245. COMMENT: The Department should not adopt the rules because they will have negligible impacts on the environment while making it even more expensive to live in New Jersey. (331)

246. COMMENT: On the highway, EVs are only marginally better than gas cars at reducing emissions while costing more. (141)

247. COMMENT: The Department should not adopt the rules because they will not have a positive impact on the State's environment. (22, 63, 143, 179, 204, 214, 218, 221, 240, 264, 299, 333, 343, 381, 384, 398, 408, 502, 503, 518, 543, 570, 574, 585, 595, 596, 605, 625, 654, and 715)

248. COMMENT: The rules are short-sighted and do not consider the negative environmental impact that EVs actually have. (248)

249. COMMENT: EVs are not good or better for the environment. (101, 316, and 479)

250. COMMENT: EV technology is not a pollution panacea. (92)

251. COMMENT: Mandating the use of EVs by 2035 is not a sustainable solution to reduce carbon emissions. (350)

252. COMMENT: Electric companies pollute the air more than cars. (348)

253. COMMENT: Much of the justification for this rule is to address the genuine problem of climate change, which is being affected by the addition of carbon dioxide to the atmosphere by human activities. The rule proposal estimates that in 2050, this policy (if actually followed) would lower carbon emissions by 16.2 million metric tons per year. However, climate change is a strictly global problem, and the State's emissions have as much impact on the New Jersey coastline as they do on the coastline in China, and vice versa. According to the International Energy Agency, in 2022 worldwide emissions were 36.8 billion metric tons. This means that if the policy works exactly as planned, after 25 years and all the economic costs and disruptions described, the policy will only lower emissions by 0.04 percent. A 0.04 percent decline, in a quarter century, will not have any discernible impact in mitigating climate change's impact on New Jersey. Ultimately, the benefits to the people of New Jersey are not worth the costs of this regulation. (70)

254. COMMENT: The Department estimates a savings of 5.8 MMT/year of CO_2 by 2030 from this program. This is only 0.12 percent of the State's annual total CO_2 emissions and a paltry 0.015 percent of global emissions. It goes against common sense and scientific reasoning to expect any noticeable changes. The old adage "every little bit helps" only applies if everybody is moving in the same direction. This is currently not the case. The Department's own transportation sector CO_2 emissions indicates a reduction of 13.8 MMT/year between 2006 (47.9 MMT) and 2020 (34.1 MMT) and a reduction of 6.4 MMT since 2017 (40.5 MMT). Additionally, it is estimated that there was somewhere between 5.4 percent and 13 percent global CO_2 emission reductions during the pandemic years. There was no measurable change in global temperature as a result of these CO_2 reductions. As these reductions are greater than the

reduction estimates from these regulations, this means that the program will not have positive benefits. (102)

255. COMMENT: To justify this rulemaking, the Department has thrown in every potential and speculative climate impact. The Department should study the recent studies put forth by the IPCC that significantly decreased the potential warming that may result from realistic emission scenarios. The IPCC has also refuted much of the claims on many of the extreme weather events being attributed to climate change, calling the science supporting them to be of "low confidence." The Department's assertion of an "ozone penalty" due to climate change is also speculative and the Department should review those claims based on the latest IPCC data and reports under likely emission scenarios. Given the enormous burden this rulemaking would have on New Jersey's citizens and its economy, any rationale to justify the imposition of this burden needs to be equally great. Listing climate change, greenhouse gas emissions, generic impacts, and the intellectually false "social cost of carbon" as justifications for this rule does not meet that high burden. When talking about the benefits of these rules, the Department did not provide any details as to what would actually change in the environment. It is understood that every action results in less carbon emissions and theoretically at some point there may be a beneficial impact. Setting aside the fact that models have shown that even a complete and immediate elimination of greenhouse gas emissions will not change warming trends this century and setting aside the issue of climate uncertainty due to natural variability, this rule will have a tremendous negative impact on the economy and mobility of the citizens of this State. The Department's promotion of the co-benefits of EVs as they relate to NO_x, particulates and ozone ignores the decades of environmental progress made under its leadership in addressing these pollutants. Merely stating

the health impacts of these pollutants is disingenuous. The question is what additional benefits the EV policies will have on the State and specific communities. If this rule were really about these co-benefits, and not about greenhouse gas reductions, perhaps different strategies would be pursued, such as taking action to reduce pollution crossing into the State from neighboring states. (113)

256. COMMENT: The Social Impact statement ascribes value to reducing NO_x and PM2.5 emissions. There is a recent study that shows that these two vehicle emissions are incredibly low in today's ICE vehicles and when compared to an EV. They are nearly the same. Specifically, the Transportation Energy Institute study states with regards to NO_x, "[c]omparing EPA NO_x emission certification values for all 2019 vehicle models, GREET [Greenhouse Gases, Regulated Emissions and Energy Use in Technologies] results indicate that both gasoline-fueled ICEVs' and EVs' NO_x emissions will continue to decrease in the future, and all vehicle technology options' NO_x reductions from a 1980 NO_x level are within 1% of each other." Examining the results of the authors' investigation into PM, they state, "with the transition to ultra-low sulfur gasoline and diesel enabling higher efficiency catalytic converters on gasoline vehicles and the introduction of selective catalytic reactors to control diesel NO_x emissions, ICE vehicles have reduced criteria emissions 97-99%." The study also states that "[a]ccording to GREET well-to-wheel (WTW) emission values, today's gasoline and diesel vehicles' tailpipe PM emissions are 98.3 percent - 100.3 percent lower than the average 1980 gasoline car and 97.3-99.4 percent lower on a well-to-wheel basis." In the case of both NO_x and PM emissions, there is virtually no difference between EVs and ICE vehicles. (251)

257. COMMENT: Given the current mix of electrical generators in PJM Interconnection, in which New Jersey is a participant, replacing new ICE vehicles with new EVs will result in an increase in emissions of SO_2 and NO_x. New ICE vehicles must meet the EPA's "Tier 3" emissions standards, which were adopted in 2021. Those standards limit CO_2 emissions to 161 grams per mile, SO_2 emissions to 0.001 grams per mile, and NO_x emissions to 0.03 grams per mile. Compared with the current mix of generation in PJM, emissions of SO_2 will increase by a factor of more than 100. Emissions of NO_x will increase by a factor of two. Although SO_2 and NO_x emissions from electric generating plants would not be released directly on New Jersey roads and communities, prevailing winds will carry these emissions towards the State from fossil-fuel generators west of the State. Although PJM does not publish data for particulate emissions from power plants, the Department fails to consider a significant source of particulate emissions: roads and tires themselves. EVs are heavier than ICE vehicles owing to the weight of battery packs. As such, EVs create more particulate emissions from road contact. When heavy trucks are required to be electric, as California is implementing, particulate emissions from roads and tires will increase even further. (387)

258. COMMENT: In reality, the rules will not improve the State's air quality. Most residents will be forced to keep their old vehicles. Currently each model of new gas-powered car has better gas mileage and less emissions. So, any perceived benefit from mandating EV use will be lost as people keep their old cars. Also, commuter traffic from out-of-State will continue to fill the highways with their gas-powered cars from their freedom-loving states. (518)

RESPONSE TO COMMENTS 238 THROUGH 258: As explained in the notice of proposal, the ACC II rules are one piece in a larger strategy to mitigate climate change and address air

pollution. See 55 N.J.R. at 1774, 1781, and 1782. The State's goal, set forth in the GWRA, is to reduce greenhouse gas emissions to 80 percent less than the 2006 level of Statewide greenhouse gas emissions by 2050 (80x50 goal). Executive Order No. 274 (2010) also developed an interim benchmark goal for reducing greenhouse gas emissions to 50 percent below 2006 levels by 2030 (50x30 goal). Given the magnitude of reductions necessary to meet the State's 80x50 or 50x30 goal, there is no single rule or strategy that will achieve all the emission reductions necessary. The State will need to continue to develop, and refine, the mix of policies, rules, and laws that will work to mitigate climate change and reduce criteria pollutants in the State. Also, though the emission reduction estimates from this rulemaking may seem relatively modest on a global scale, it is important to remember that no single policy, state, or country will solve the issue of climate change or air pollution. Accordingly, New Jersey continues to work collaboratively with California, other states that have adopted California's emission standards pursuant to Section 177 of the CAA (a "Section 177 state"), the Federal government, and the international community to implement policies that will build upon one another – policies that, when taken together, have a global impact. To this end, the Department can and will continue to promulgate rules "preventing, controlling and prohibiting air pollution throughout the State" (N.J.S.A. 26:2C-8 and 8.1) through the adoption of technologically feasible, emission reducing measures.

In order to reduce greenhouse gas emissions, the Department must address the largest source sectors. The Department's Greenhouse Gas Inventory indicates that emissions from transportation represent 39 percent of New Jersey's greenhouse gas emissions. 55 N.J.R. at 1774; https://dep.nj.gov/ghg/nj-ghg-inventory/. This is the largest single sector of greenhouse gas emissions in the State. See https://dep.nj.gov/ghg/nj-ghg-inventory/. Within the transportation

sector, the largest source, about 82 percent, is gasoline-fueled light-duty passenger cars and trucks. For these reasons, the Department has determined that the ACC II rules are a necessary piece of a more comprehensive strategy to reduce emissions. The Department and other State agencies, like the BPU, Department of Community Affairs (DCA), and Economic Development Authority (EDA) have, and will continue to take steps to address greenhouse gas emissions from every sector including electric generation. To learn more about the ongoing efforts of the Department, please refer to: https://dep.nj.gov/climatechange/mitigation/.

The notice of proposal addressed the environmental impacts of the ACC II program. See 55 N.J.R. 1786-1787. While the notice of proposal focused on the in-State emission reductions and health benefits, the study conducted by Sonoma, Inc., demonstrates that those benefits are magnified when one considers the cumulative emission reductions that will be achieved by the implementation of ACC II in all of the other Section 177 states. https://theicct.org/wp-content/uploads/2023/05/ACC-II-project-report-final-042623.pdf. The reductions in greenhouse gas emissions and criteria pollutants, such as NO_x and PM2.5, are quantifiable and significant in New Jersey and as part of a regional approach. Further, criteria pollutants primarily affect the health and environment of New Jersey residents and residents of downwind states. Accordingly, there will be a positive impact on the environment, even beyond addressing climate change.

Unlike criteria pollutants, greenhouse gas emissions have a cumulative global impact. As explained by the National Oceanic and Atmospheric Administration within the U.S. Department of Commerce, "[h]uman activities are largely responsible for recent climate change. Over the past century, the burning of fossil fuels to produce energy, has released large amounts of carbon dioxide (CO_2) into the atmosphere. Other human activities, such as deforestation, industrial

processes, and some agricultural practices also emit greenhouse gases into the atmosphere. Greenhouse gases are positive forcing because they absorb energy radiating from the Earth's surface, rather than allowing it to be directly transmitted into space. This traps energy close to the surface of the Earth, acting like a blanket that warms the planet. This phenomenon, known as the greenhouse effect, is natural and necessary to support life on Earth. However, the ever-increasing amounts of greenhouse gases over the past century have increased this warming of the Earth's climate, resulting in dangerous effects to human health and welfare, and to ecosystems. NOAA's Annual GHG Index, which tracks changes in radiative forcing from greenhouse gases over time, shows that such forcing from human-added greenhouse gases has increased 27.5 percent between 1990 and 2009. Increases in CO_2 in the atmosphere are responsible for 80 percent of the increase." https://gml.noaa.gov/aggi/; https://dep.nj.gov/climatechange/climate-science/. For more information regarding climate science, please visit: https://dep.nj.gov/climatechange/climate-science/; https://www.usgs.gov/science/science-explorer/climate/climate-change-101; https://www.epa.gov/climatechange-science/basics-climate-change ; https://climate.nasa.gov/what-is-climate-change/.

As discussed in the notice of proposal, climate change impacts are significant and far reaching. See, for example, 55 N.J.R. at 1780-81. These impacts include worsening ground-level ozone concentrations, despite the work the State has done to reduce the ozone precursor emissions. *Ibid*. While these rules have costs associated with their implementation, the failure to mitigate climate change carries its own price. See 55 N.J.R. at 1785-86. To help explain the costs of the failure to act, the Department examined the social cost of carbon, a measure of the monetized global damages associated with an incremental increase in carbon emissions in a

given year, as part of its Economic Impact statement. *Ibid*. After careful consideration of all of these factors, the Department determined that the ACC II rules will have an overall net positive impact.

As explained in the Response to Comments 16 through 44, the ZEV requirement of the ACC II rules requires a manufacturer to satisfy the applicable production volume percentage with an equal number of vehicle values. See also 55 N.J.R. 1774-75. The rules include various ways for a manufacturer to comply, including trading surplus vehicle values. In accordance with 13 CCR 1962.4(f)(4), as incorporated by reference at N.J.A.C. 7:27-29A.7, manufacturers may trade only excess vehicle values. In other words, if the manufacturer has generated more ZEV values than required by their total production volume, then they may trade only those excess values.

Please see the Response to Comments 259 through 283 regarding the well-to-wheels emissions considered and the Response to Comments 284, 285, 286, 287, and 288 regarding vehicle weight. Please also see the Response to Comments 466 through 511 regarding CARB-certified requirements in neighboring states.

Well-to-wheels

259. COMMENT: The lifecycle emissions of an EV are much cleaner than gasoline vehicles and will continue to get cleaner over time. According to the DOE's Alternative Fuels Data Center, in New Jersey—even with the current electricity grid mix—the well-to-wheels emissions (emissions from fuel production, processing, distribution, and use) of internal combustion engine

vehicles produce more than 87 percent annual emissions than zero-emission vehicles. As more renewable energy is added onto the grid, ZEVs will only continue to get cleaner over time. (292)

260. COMMENT: The Union of Concerned Scientists found that electric cars and pickup trucks produced fewer global warming emissions than gasoline vehicles when considering fueling – that is, electricity versus gasoline. The study acknowledges that the manufacturing of an EV may initially produce more greenhouse gas emissions (due to the current battery supply chain), but over the lifespan of the vehicle, emissions are between 52 and 57 percent less than a comparable gasoline car and truck. The authors state that "most of the global warming emissions over the lifespan of a vehicle occur during its use, so the reductions from driving an EV more than offset the higher manufacturing emissions." (292)

261. COMMENT: An analysis by Reuters using the Argonne National Laboratory's GREET model considered the well-to-wheel emissions of an electric vehicle. The analysis shows that while production of an electric vehicle emits 15 carbon dioxide g/mile more than the production of a gasoline vehicle, EVs still emit far less carbon dioxide than their gasoline counterparts over their lifetime, due to the emissions benefits of electricity as a fuel source as opposed to gasoline. Even charging an electric vehicle using only a coal-powered electric grid would still reduce emissions by half a million grams of carbon dioxide a year compared to a gasoline vehicle. Reuters estimates that beyond 13,500 miles driven, EVs' well-to-wheel emissions would be cleaner than that of gasoline vehicles. Considering the average vehicle in the United States is driven approximately 11,400 miles per year, this means that after only a year of vehicle ownership an EV will be cleaner than a gasoline vehicle when considering the vehicle lifecycle. (292)

262. COMMENT: The cumulative reduction in CO_2 emissions between now and 2035, compared with an equal number of new ICE vehicles purchased, by meeting the two million EV mandate by 2035 is approximately 28 million metric tons. The estimated reduction is based on the current mix of generation in PJM Interconnection and assuming EVs are driven the same average number of miles per year as ICE vehicles. If two million EVs are assumed to be charged solely with emissions-free electricity, the annual emissions reduction would be just over four million metric tons compared with new ICE vehicles. By comparison, in 2022, world energy-related CO_2 emissions were approximately 34.3 billion metric tons. Hence, the cumulative emissions reductions between 2023 and 2035 will be equivalent to about one day of world CO_2 emissions. And even under a best-case scenario in which all EVs are charged with zero-emissions electricity, the annual CO_2 reduction would be equivalent to just one hour of 2022 world emissions. Hence, neither the State's EV mandate nor the ACC II rules will have any measurable impact on world climate. (387)

263. COMMENT: While the Department should address environmental issues, adopting this rule raises issues concerning the emissions that will result from the existing electric grid as a result of the increased demand for electricity from electrification of vehicles. The Department must plan for greater clean energy production. (490 and 690)

264. COMMENT: If electrification of the transportation industry and the 80x50 goals remain priorities for New Jersey, the ACC II rules provide greater certainty than the other options. However, the scale-up of renewable power generation, and buildout of grid infrastructure is another key challenge. New Jersey's clean power generation needs to ramp up significantly. If ZEV adoption outpaces adequate additions of available generation, added through efficiency and

integration of distributed energy resources (DER), there is a risk that power prices will rise constraining power availability. (302)

265. COMMENT: The Department should not adopt the rules because the State does not have enough renewable/sustainable energy sources to meet the increased electric demand that will be needed to power the vehicles. (166, 309, 346, 389, and 578)

266. COMMENT: The Department should not adopt the rules because EVs will be charged or manufactured using the electricity generated from fossil fuels. (22, 36, 110, 115, 143, 166, 170, 206, 218, 221, 245, 268, 284, 324, 333, 350, 356, 359, 380, 422, 463, 465, 485, 487, 502, 528, 593, 633, 637, 652, 664, 669, 678, 689, 691, 698, 717, and 725)

267. COMMENT: The Department must consider the environmental impact of generating all of the electricity that the new EVs will require on an ongoing basis. (31)

268. COMMENT: The Department should not adopt the rules because EVs also negatively impact the environment. (326 and 559)

269. COMMENT: The Department should not adopt the rules because emissions that will be produced to expand the current power grid would be great. (637)

270. COMMENT: The methods to create the electrical energy to fuel EVs are dirtier than anything an efficient internal combustion engine produces. (662)

271. COMMENT: The Department must consider how much carbon dioxide is generated from the entire lifecycle (mining of raw materials, production of vehicles, distributing, and consuming vehicles) of running an electric vehicle. (44)

272. COMMENT: Although efforts to reduce carbon emissions are supported, mandating the sale and use of EVs fails to account for significant carbon emission sources from EVs. All

vehicles, regardless of power train, should be evaluated using a full life cycle assessment accounting for all emissions, including emissions associated with vehicle production, recharging or refueling, drive train or battery replacements, infrastructure modifications, and end-of-life disposal and recycling of the vehicle. (167)

273. COMMENT: When all the numbers are crunched, EVs are only five percent more efficient and less polluting the fossil fuel vehicles. (198)

274. COMMENT: The production of EVs has been proven to be worse for the environment than gasoline powered cars over their entire lifetime. (287 and 640)

275. COMMENT: Electric cars are still coal-based, which is less environmentally friendly than gasoline. (37)

276. COMMENT: Considerable total energy is used to manufacture, produce, distribute, consumer, and recycle or scrap an EV versus a comparable ICE vehicle, expressed in kilowatt hours. (44)

277. COMMENT: Before adopting the rules on the proposed timeline, the Department must evaluate whether New Jersey can meet the increased demand through generation of electricity entirely with zero emissions sources, while simultaneously bringing online enough new clean energy to replace all existing natural gas usage and to cover the increased demand from the building electrification program. There is no point to the rules if all of the vehicles are powered by electricity generated mostly by natural gas. (70)

278. COMMENT: The notice of proposal Summary spent very little time discussing the actual carbon reduction benefits of this rule given the fact that the electricity coming from the PJM grid (New Jersey has now become a net importer of electricity) is produced from facilities using coal,

oil, and gas. While there will be some carbon reductions even with the PJM emissions, it is important to note that EVs are not zero emission devices given their reliance on the generation of electricity and the fact that the grid is not clean. It likely will not be clean, even under the best circumstances, during the life of the cars being mandated pursuant to this rulemaking. While assumptions can be made that carbon emissions from the PJM grid will decrease over time as more renewables are put onto the grid and older, coal plants are removed, the extent of these reductions are largely speculative. The Department should not claim to be promoting cars that have zero emissions when, in fact, they do. These concerns do not even take into account the full lifecycle of carbon emissions from EVs, a topic ignored by the Department. (113)

279. COMMENT: Although the Department states that the modeling regarding lower emissions takes into account some increase in electricity attributable to increased electricity use, it seems like the model only attributes this to emissions associated with power plants. Much of the electricity in the State is currently provided by natural-gas-fired generation plants. It is unclear whether this type of gas-fired generation was utilized in this analysis. A complete analysis of air emissions related to electricity generation would also consider the extensive leaks, venting, and flaring that accompanying natural gas production. Without taking into account the origin of how the electricity is generated or the fossil fuels used in its generation, the environmental and health benefits stated cannot be accurate. (394)

280. COMMENT: Much of the current debate assumes EVs are more environmentally friendly than internal combustion engines. However, a growing body of evidence suggests this may be inaccurate. Data from many studies indicates that the list of net environmental benefits from EVs

often fails to accurately account for the source of electricity powering these vehicles or the greenhouse gas emissions associated with manufacturing and components. (342)

281. COMMENT: Any rule should be based on a full lifecycle analysis that considers that all vehicles have emissions across their life cycle from production, utilization, infrastructure, and disposal. Using this analytical methodology will provide the best opportunity to decarbonize the transportation sector. Simply analyzing tailpipe emissions is not a scientifically sound approach to assessing vehicle emissions. According to one study, "advanced internal combustion engine vehicles (ICEVs) and hybrid electric vehicles (HEVs) can produce comparable reductions in greenhouse gas emissions as similarly equipped, full battery electric vehicles." In order to provide comprehensive evaluation of greenhouse gas impacts, the Department should undertake an analysis of the complete lifecycle emissions of passenger vehicles from mine-to-wheel and well-to-wheel, to end of life of battery electric vehicles and internal combustion engine vehicles, respectively. (251)

282. COMMENT: Swedish carmaker Volvo recently announced that the carbon emissions required to produce its all-electric vehicle are 70 percent higher than its gasoline equivalent. Volvo says that its all-electric car would need to be driven up to 68,000 miles before it breaks even on carbon emissions. (465)

283. COMMENT: The Department relied on the services of the International Council on Clean Transportation (ICCT) to develop this rule proposal. The ICCT is a non-governmental organization wholly funded by private foundations and consulting firms that state on their IRS form 990 schedule O the following: "In the last five years alone, we have worked successfully with regulators and lawmakers around the world and have played a significant role in 48 distinct

Regulations and policies." This organization is not a New Jersey-funded member environmental advocacy group. This is a political advocacy lobbyist group whose funding is hidden behind global private foundations and consulting firms. The Department relied on the services of this organization's contractor (Sonoma Technology) to analyze and evaluate the effects of this rule proposal on the citizenry and environment of New Jersey, despite the fact that the Department employs hundreds of environmental engineers and scientists who are more than qualified to perform the necessary impact statements required by the New Jersey Administrative Procedures Act to support this rule proposal. As a result of this relationship, the conclusions of the Social, Economic, and Environmental Impact statements in the notice of proposal are called into question. The ICCT's contractor used a well-to-wheel CO_2 calculations in place of lifecycle mass balance accounting to calculate the CO_2 emission increase/decrease estimates, coupled with the unrealistic assumption that the New Jersey electric grid will consist of 100 percent zero emission generation by 2050. Recent news on the troubles of the offshore wind industry illustrate problems using the latter assumption. The well-to-wheel methodology used by the ICCT's contractor ignores CO_2 emissions in the mining of raw materials, manufacturing, and transport of EV vehicles, while at the same time maximizing future CO_2 emission reductions from the electrical grid and petroleum refining industry. This is a dubious choice of methodology given that the ICCT has conducted one of the most comprehensive meta analyses of CO_2 lifecycle emissions associated with EV battery manufacturing here: https://theicct.org/sites/default/files/publications/EV-life-cycle-GHG_ICCT-Briefing_09022018_vF.pdf. This ICCT study indicates that lifecycle CO_2 emissions from EVs are only slightly better than efficient ICE vehicles. Removing local generated CO_2 emissions

from tailpipes while increasing CO_2 emissions in other parts of the world negates the Department's assumed climate change benefits of these rules. The Department chose instead to obfuscate this fact by using well-to-wheel CO_2 accounting in a disingenuous attempt to demonstrate positive social, economic, and environmental benefits attributed to this rule proposal. (317)

RESPONSE TO COMMENTS 259 THROUGH 283: As explained in the notice of proposal, the Department participated in an environmental analysis conducted by Sonoma Technology, Inc., to compare the benefits in New Jersey if ACC II were adopted compared with business-as-usual. 55 N.J.R. at 1786-1787. Sonoma's analysis was peer-reviewed, technically sound, and used Federally accepted models: the Motor Vehicle Emissions Simulator model (MOVES) www.epa.gov/moves, the National Renewable Energy Laboratory's (NREL) Greenhouse gases, Regulated Emissions, and Energy use in Technologies Model (GREET) (https://bioenergymodels.nrel.gov/models/29/), and the CO-Benefits Risk Assessment model (COBRA) www.epa.gov/cobra/what-cobra. The analysis relied on by the Department calculated well-to-wheel CO_2e emissions, which includes emissions associated with the production of the energy used to propel the vehicle (for example, petroleum extraction and refining for gas-fueled vehicles and natural gas extraction and combustion in a power plant for a battery EV charged using electricity) as well as operational emissions, such as tailpipe emissions and tire and brake wear. Thus, as the Department explained, the modeling accounts for emissions resulting from combustion of fuel in ICE vehicles and power plant emissions associated with electricity used to charge EVs. 55 N.J.R. at 1787. The modeling also accounts for emissions related to petroleum production and refining, and power plant operation. *Ibid*. The well-to-wheel analysis excludes

emissions associated with the manufacturing of the vehicle itself, as well as end-of-life disposition of the vehicle. *Id*. More specifically, the study modeled emissions of NO_x, PM2.5, volatile organic compounds, sulfur dioxide, ammonia, and carbon dioxide equivalent (CO_2e). The pollutants of greatest concern and impact include NO_x and PM2.5 and well-to-wheels CO_2e. Based on the analysis, the Department estimated an additional reduction of 20.8 MMT/Y of CO_2e emissions in 2050, compared with the business-as-usual scenario, if the ACC II sales goals are achieved. *Id*. As explained, this emissions estimate included the increase in emissions from power plants that would be needed to produce electricity to recharge EVs, using a mixture of electricity generation that includes fossil fuels and is representative of New Jersey's current and future grid. See 55 N.J.R. 1786-1787. New Jersey's current grid mix is based on data from U.S. EPA eGRID, (https://www.epa.gov/egrid), and projected grid mix is based on the Global Warming Response Act 80x50 Report (https://dep.nj.gov/wp-content/uploads/climatechange/nj-gwra-80x50-report-2020.pdf) and the New Jersey 2019 Energy Master Plan (https://www.nj.gov/emp/).

The Department acknowledges that emission reductions could be increased if there were more grid-supplied renewable sources. Accordingly, New Jersey has developed several strategic plans to ramp up renewables as part of the generation sector. Please refer to the Global Warming Response Act 80X50 Report https://dep.nj.gov/wp-content/uploads/climatechange/nj-gwra-80x50-report-2020.pdf and the New Jersey Energy Master Plan https://nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf. In accordance with these plans, the State has invested, and continues to invest, significantly in clean electricity generation through support for offshore wind, solar, and nuclear generation. While it is true that the Department did not

account for vehicle manufacturing (sometimes referred to as production) emissions from electric vehicles, it also did not include vehicle manufacturing (production) emissions from ICE vehicles. However, the EPA has concluded that while initial manufacturing emissions from EVs are higher than from ICE vehicles, the reduced emissions over the vehicles' lifetimes more than make up for the difference. See https://www.epa.gov/greenvehicles/electric-vehicle-myths at "Myth #2: Electric vehicles are worse for the climate than gasoline cars because of battery manufacturing." Likewise, the International Council on Clean Transportation published a study on this topic and arrived at the same conclusion. See https://theicct.org/sites/default/files/publications/EV-life-cycle-GHG_ICCT-Briefing_09022018_vF.pdf.

Contrary to the commenter's conclusions, the ICCT report shows that life-cycle emissions of EVs are still less than that of the "most efficient" vehicles versus the "average European car." The New Jersey vehicle population is composed of more light-duty trucks (which includes pickups, vans, SUVs, and some crossover vehicles) than passenger cars. In addition, the typical passenger cars in New Jersey are larger and heavier than many car models driven in Europe. These factors notably increase the benefits of EVs versus typical vehicles driven in New Jersey because light-duty trucks and heavier cars will consume more fuel and produce more emissions over their lifetime. Also, note that the cited ICCT report indicates that future factors are likely to further widen the gap in life-cycle emissions in favor of EVs. ICCT mentions improved battery technology, battery reuse and recycling, and increased electric grid decarbonization as examples. Finally, the cited ICCT report recommends against using life-cycle manufacturing emissions, considering it misguided for a number of reasons they detail in the

report. See https://theicct.org/sites/default/files/publications/EV-life-cycle-GHG_ICCT-Briefing_09022018_vF.pdf.

Vehicle Weight

284. COMMENTS: The Department should not adopt the rules because it has failed to consider the impacts of the heavier weight of the EVs. Some commenters cite specific concerns, including the impact of the heavier vehicle weight as it relates to the increased wear on roadways, driveways, bridges, overpasses and/or older parking structures, and/or the increased wear on automobile tires. (122, 181, 182, 309, 328, 365, 380, 527, 669, and 687)

285. COMMENT: The weight of EVs is 30 percent heavier than that of a gasoline powered car. This is a problem as the parking decks were built to support the weight of gasoline powered cars. (365)

286. COMMENT: The increasing weight of batteries is of concern because EVs can accelerate at unheard-of rates and outweigh gas-powered cars by 10 to 1. As a result, there is a real concern about more motor vehicle deaths because the State is so densely populated and has many cars on the road. (142)

287. COMMENT: EV are death traps on wheels. They weigh nearly twice as much as a traditional vehicle and are a major fire hazard if they ignite. Someone who gets in an accident with an EV will more likely suffer injuries or death. (115)

288. COMMENT: The Department must analyze the environmental impact fully and accurately. It is becoming increasingly clear that battery electric EVs are not truly “zero” emissions. Not only do they create particulate emissions from their tires and their brakes, but they do so at a higher rate than ICE vehicles owing to the added weight of the vehicle’s batteries. (70)

RESPONSE TO COMMENTS 284, 285, 286, 287, AND 288: The Department has found that the increase in light-duty vehicle weights as a result of electrification does not significantly contribute to road damage. The relationship between axle weight and road damage was established by a study conducted by the American Association of State Highway Officials (AASHO). Although the AASHO Road Test (https://onlinepubs.trb.org/Onlinepubs/sr/sr61g/61g.pdf) study was conducted from 1956 to 1960, the information gleaned was considered landmark and is still used for road and bridge design. One of the primary outcomes was a mathematical comparison of pavement damage caused by different axle weights. As explained in the AASHO Road Test study, the generalized fourth power law states that the greater the axle load of a vehicle, the stress on the road surface caused by the vehicle increases in proportion to the fourth power of the axle load.

The AASHO Road Test study was done using loaded trucks because lighter vehicles resulted in negligible road wear. Road design uses a standard unit called the Equivalent Single Axle Load (ESAL), which represents a single axle 18,000 pound load. According to the National Center for Freight & Infrastructure Research & Education (CFIRE) University Of Wisconsin–Madison in their analysis Understanding Freight Vehicle Pavement Impacts: How do Passenger Vehicles and Trucks Compare?: “The ESALs that a car generates also vary with the overall car weight. Virginia DOT estimates cars generate 0.0002 and 0.0003 ESALs on flexible and rigid pavements respectively. Other estimates put car ESALs at 0.0004 for rigid pavement. Still other research calls the impact of cars on roadways insignificant for design purposes and implicitly questions the validity of any comparisons between the two vehicle types.” (https://midamericafreight.org/wp-content/uploads/2018/10/ESALs.pdf). As highlighted by the

very small numbers in the CFIRE analysis, the impact of cars on road wear, compared to trucks, is negligible. The U.S. Government Accountability Office further states that "… a five-axle, tractor-trailer loaded to the 80,000-pound Federal limit, has the same impact on an interstate highway as 9,600 automobiles. In addition, as truck axle weights increase, pavement damage increases at an even faster rate. For example, while a truck axle carrying 18,000 pounds is only 9 times heavier than a 2,000-pound automobile axle, it does 5,000 times more damage." (https://www.gao.gov/products/109954). Applying the fourth power law to weight increases in light-duty electric vehicles shows road wear may increase by 1.5 to 2.0 times. Therefore, the road impact caused by the weight increase in light-duty EVs is still substantially less than that of a truck.

The design of parking decks and their weight capacities is outside of the scope of this rulemaking.

While it is true that EVs currently weigh more on average than their gasoline vehicle counterparts, the Department is not aware of any traffic accident or fatality statistics that specifically examined the impact of EVs. The Insurance Institute for Highway Safety (IIHS), has expressed concern about the growing weight of EVs and all vehicles in general (https://www.iihs.org/news/detail/as-heavy-evs-proliferate-their-weight-may-be-a-drag-on-safety) and recommended both increased safety technologies, as well as scaling back on motorists purchasing bigger and heavier vehicles than is necessary for daily driving.

Particulate emissions related to tire and brake wear were included in the Department's emissions analysis originally published in the ACC II proposal at 55 N.J.R. 1773. See the Response to Comments 259 through 283.

Economic and Jobs Impacts

Affordability

289. COMMENT: This government mandate is designed to restrict the supply of ICE vehicles, which will naturally result in higher prices for all vehicles. This will increase inflation and make buying and owning a new car virtually unaffordable for working- and middle-class families in New Jersey. (27)

290. COMMENT: Mandating families who are already financially stretched that they must also adopt new technology that is not yet affordable or dependable is not good policy. (368)

291. COMMENT: The State's overriding goal should be to have low-cost, affordable energy for residents, not expensive policies that will additionally burden people already struggling. (528)

292. COMMENT: Government should stop making things harder on average people. (219, 464, and 627)

293. COMMENT: If applying a cost benefit analysis, taxpayers (voters) will incur higher costs to comply with the rules with no evidence of any benefit. (397)

294. COMMENT: The rules are nothing more than a tax that is unwarranted and cost-prohibitive to the average resident. (171)

295. COMMENT: This mandate cannot and should not cripple our communities and businesses and exacerbate income inequality in the State. The disadvantages outweigh any potential or perceived benefits. (675)

296. COMMENT: Forcing this rule will only hurt average New Jersey citizens and punish everyone who is not rich. (642)

297. COMMENT: The rules will harm, burden, and/or is not in the best interest of State taxpayers. (216, 336, and 451)

298. COMMENT: The rules will damage and/or destroy the economy. (97 and 261)

299. COMMENT: Implementation of the standards will result in lower costs to NJ Transit and the State of New Jersey. (96)

300. COMMENT: Mandating EVs will just be another tax on lower income families. (77)

301. COMMENT: State residents are taxed enough already. (140)

302. COMMENT: The rules will not benefit the State where residents are already overtaxed. (454)

303. COMMENT: The rules are a tax on New Jersey residents with no good purpose. (231)

304. COMMENT: The additional costs of the rules make the rules unlikely to succeed. (599)

305. COMMENT: The environment needs to be taken care of but in a reasonable fashion. Pushing the cost of the rules onto New Jersey citizens when they are already burdened with the highest property taxes in the nation is unacceptable. The rules are only for the one percent, not the other 99 percent who just make it every week. (621)

306. COMMENT: The cost of EVs and necessary charging and grid infrastructure will result in more government subsidies for buyers, which will increase inflation further. (137)

307. COMMENT: The rules will accelerate inflation by driving up electricity and road maintenance. (605)

308. COMMENT: The cost of charging at the frequency required will dramatically increase the cost of goods. (223)

309. COMMENT: There is no sensible plan to replace ICE vehicles without causing pain to the average consumer. (417)

310. COMMENT: Banning ICE vehicles will inequitably strain the limited resources of families, businesses, and utilities. (62)

311. COMMENT: The people hurt by this mandate will be the most vulnerable, who most need the State's protection. (279)

312. COMMENT: Government agencies are not getting rid of their private planes, private limousines, or any of their luxuries. The people who cannot afford them are being forced to do what is not fair. (135)

313. COMMENT: The cost of implementing the program for the average consumer will put new cars out of reach. (703)

314. COMMENT: Many people will not be able to afford any of this. (447)

315. COMMENT: Whenever a particular technology is artificially pumped up, costs will skyrocket. (518)

316. COMMENT: The rules will make it impossible for residents, including the working and/or middle class to survive. (54, 68, 179, 281, and 569)

317. COMMENT: It is unconscionable to put an additional burden on people who can barely pay rent and put food on the table. It is not just the cost of the car but also maintenance, repairs, and parts that will be more expensive. The rules benefit only the wealthy elites and disregard the middle class and poor. (636)

318. COMMENT: The costs of the rules make the mandate an affront to residents. (133)

319. COMMENT: This EV mandate would result in fewer low- and middle-income families, teenagers, and seniors being able to afford a car – greatly impacting their quality of life and ability to get to work, school, and food stores. By denying thousands of New Jerseyans access to an affordable vehicle, this mandate would be crippling to our communities, businesses, economy, and labor workforce, and would exacerbate income inequality in our State. (14)

320. COMMENT: The rules would upend the middle- and working-class economy and create an unconscionable burden on New Jersey residents. (22 and 333)

321. COMMENT: It is vital that in the transition to a clean transportation future, all residents have equitable access to zero-emission vehicles and transportation more broadly and realize these benefits as soon as possible. ACC II has some modest equity measures, such as environmental justice credits, which allow manufacturers to earn additional credits for lower cost vehicles, ZEVs placed in community car share programs, or ZEVs sold at end of lease to dealerships participating in financial assistance programs to encourage sales to low-income community members, but more needs to be done. (292 and 329)

322. COMMENT: The Department should adopt ACC II this year, and work with other State departments and stakeholders to develop a comprehensive and just transition plan. As the State moves policy forward to reduce greenhouse gas emissions and transition to a clean energy future, it must ensure its policies do not leave any workers or communities behind. (494)

323. COMMENT: The Department should work with other State departments and stakeholders to develop a comprehensive and just transition plan. (685)

324. COMMENT: Access to EVs may not be evenly distributed across all communities, which could disadvantage lower income residents. (485)

325. COMMENT: As proposed in New Jersey, ACC II would incentivize manufacturers to offer vehicles at low MSRP rates and financial assistance programs for low-income New Jerseyans. This, in addition to current State and Federal incentives, makes EVs more affordable to more moderate-income customers. (462)

326. COMMENT: EVs are starting to be produced by many different manufacturers at many different price points that make them affordable for different income levels. (151)

327. COMMENT: EV cost is not a problem today. According to an article released last December, the average price of a car, not just an EV, was over $50,000. The cost decreased a little because the supply chain is better, but still close to $50,000. After incentives, the most affordable EV is $14,500, equivalent to an ICE vehicle. The most affordable Tesla after incentives is $23,385. (329)

328. COMMENT: By increasing the growth rate of the EV market, the resulting economies of scale will lower EV prices, making EVs more affordable. The price of lithium has fallen more than 50 percent this year and the cost of nickel and cobalt have also declined. EVs also have significantly lower maintenance and operating costs. (376)

329. COMMENT: ACC II will create a ZEV supply to meet demand, which will accelerate the transition to ZEVs and encourage economies of scale that will help decrease costs and set the stage for further economic development, such as EV charging infrastructure. (201)

330. COMMENT: The costs to buy electric will continue to drop with technology advancement through better and safer batteries. (696)

331. COMMENT: The phase-out of ICE vehicles is supported. Hybrid vehicles have lower maintenance costs, high reliability, and fuel savings. State rebates and Federal tax credits also

lower purchase cost. Financial incentives and widespread availability of public charging stations are primary factors for the purchase of a full EV or a PHEV. (48)

332. COMMENT: The rules are supported, but the State should ensure that car dealers do not take advantage of consumers. (536)

333. COMMENT: EVs often have lower maintenance costs than ICE vehicles. By funding EVs at the State level, the State can lower the cost and barrier to entry for many residents and help them transition to safer and newer vehicles. (711)

334. COMMENT: The Department should adopt the rules, but should also address the concerns about the costs of electric vehicles (EVs). (288 and 730)

335. COMMENT: While the transition to green energy is important for New Jersey and our nation, this proposed vehicle mandate may not be the correct way to execute it. The State should be wary of banning gas vehicles before EVs are affordable to working families (548)

336. COMMENT: Before the Department considers eliminating ICE vehicles by any date certain, the Department must first consider the impact on the majority of the State's population, seniors, and/or those on fixed incomes who cannot afford an EV and/or a hybrid. (31, 54, 120, 315, 343, 345, and 612)

337. COMMENT: Most people cannot afford electric vehicles. (25 and 426)

338. COMMENT: Few can afford EV cars that even now quickly become obsolete. (259)

339. COMMENT: The extra costs of a vehicle and home charger installation will be out of reach of many residents, especially for lower income individuals, single parents, and the younger generation. (692)

340. COMMENT: Many New Jersey citizens rely on affordable and accessible transportation options to meet their daily needs. A sudden shift towards electric vehicles will increase vehicle prices, making it unaffordable for low- and middle-income households to purchase new cars. This would disproportionately affect those who cannot afford the upfront costs of EVs or lack access to charging infrastructure at their residences. (577)

341. COMMENT: The cost of EVs makes consumer acceptance of EVs far from a foregone conclusion. (167)

342. COMMENT: Most people cannot afford an EV, which is why they are currently less than five percent of registered vehicles. (518)

343. COMMENT: The Department should not adopt the rules because of the high cost to purchase an EV and/or hybrid. Some commenters stated that an EV is substantially more expensive than the cost of an ICE vehicle, the cost will place a financial burden on lower- and middle-class citizens, families, teenagers, as well as seniors and those on fixed income, and/or the average person cannot afford an EV. (14, 25, 29, 33, 40, 49, 54, 57, 63, 65, 68, 73, 75, 80, 83, 84, 92, 97, 104, 111, 115, 120, 136, 138, 142, 145, 147, 148, 152, 185, 190, 193, 196, 198, 199, 212, 223, 225, 245, 274, 278, 279, 281, 300, 308, 321, 314, 315, 328, 332, 340, 343, 351, 366, 374, 380, 395, 401, 405, 406, 411, 420, 421, 428, 432, 433, 434, 443, 455, 464, 468, 475, 485, 501, 503, 512, 518, 531, 537, 538, 539, 544, 545, 577, 586, 588, 595, 596, 611, 623, 627, 630, 632, 633, 636,639, 642, 648, 653, 662, 665, 681, 686, 715, 722, and 725)

344. COMMENT: The Department should not adopt the rules because the costs to maintain an EV are too great. Some commenters cite specific concerns ranging from the increased expense to maintain and/or replace the battery of an EV, fluctuations in electricity pricing, and/or the costs

of home charging. (14, 25, 63, 90, 114, 115, 120, 125, 152, 157, 183, 225, 263, 279, 294, 308, 309, 332, 343, 365, 366, 401, 406, 428, 433, 434, 502, 518, 527, 538, 539, 559, 588, 611, 619, 623, 636, 639, 642, 648, 643, 663, 665, 670, 686, 701, 720, and 725)

345. COMMENT: A battery will not last for the length of time the vehicle is owned and will need to be replaced at a cost of up to $20,000 when the battery can no longer be charged. (467)

346. COMMENT: The battery in an EV has a short life span and can cost $5,000 to replace, roughly after five years. This is unaffordable for the average resident. (518)

347. COMMENT: Used EVs are not an affordable option because the batteries wear out and it can cost up to $20,000 to replace. (468)

348. COMMENT: When an EV battery is reaching its end of life, the market for the vehicle will be limited because it will need an investment in the thousands to keep it running. (465)

349. COMMENT: The cost of a battery at this time is basically the same price as a new car. The consumer is likely to just buy a new car because an EV battery's lifespan will make used EVs very difficult to resell. (527)

350. COMMENT: There is no resale value for EVs. No one would take the risk of buying a used or pre-owned EV not knowing how long the expensive battery will last. (115)

351. COMMENT: While operating an EV may be cost effective over the long-term, a significant upfront expenditure for the car and charger is required. One study indicates that 11.8 percent of the State's population are behind on mortgage payments and 37 percent lack the confidence to pay. Thus, over 1/3 of the State currently has significant issues in affording housing, which will make it near impossible for these individuals to purchase a new car and install a charger. (102)

352. COMMENT: Gasoline powered cars have become extremely reliable, are relatively inexpensive to repair, and have long lives of 16 years or more with proper, inexpensive maintenance. To replace a battery in a gasoline powered car costs only about $200.00 versus $15,000 to replace the giant lithium battery that operates an EV when it can no longer be charged. The average consumer cannot afford to spend $15,000 on a replacement EV battery. (363)

353. COMMENT: Spending $20,000 on a replacement battery is a waste of money. (665)

354. COMMENT: EVs cost on average $20,000 more than a traditional ICE vehicle and are too expensive for the average person even with existing and proposed government rebates. (115)

355. COMMENT: As EVs cost, on average, almost $10,000 more than the average ICE vehicle, EVs will continue to be the privilege of the financially well off, who will be the primary beneficiaries of the State's myriad subsidies. Moreover, EVs cost more to insure than ICE vehicles, further hindering their purchase by lower-income New Jerseyans. As a recent article stated, "Unless Tesla and other carmakers produce more easily repairable battery packs and provide third-party access to battery cell data, already-high insurance premiums will keep rising as EV sales grow and more low-mileage cars get scrapped after collisions, insurers and industry experts said." (387)

356. COMMENT: While the Department should address environmental issues, adopting this rule raises economic issues. Some commenters cite specific concerns such as the high cost of the vehicles, the cost of charging, and/or the higher cost of insurance. (51, 143, 149, 184, 196, 429, 466, 490, 497, 538, 549, and 582)

357. COMMENT: The Department should not adopt the rules because they will be a financial burden to the people of New Jersey, including those on fixed incomes. Most people in the State are not able to bear the additional expense of EV ownership. (7, 20, 29, 30, 46, 47, 49, 51, 54, 75, 90, 95, 107, 110, 119, 122, 125, 144, 158, 173, 204, 228, 229, 235, 237, 246, 261, 281, 298, 301, 309, 310, 322, 337, 372, 378, 381, 388, 401, 406, 407, 416, 430, 445, 448, 458, 473, 476, 491, 498, 499, 515, 529, 551, 560, 565, 578, 595, 596, 604, 619, 626, 634, 637, 639, 643, 668, 678, 679, 683, 698, 707, and 713)

358. COMMENT: Although unknown by how much, the cost of vehicle insurance coverage and liability will increase. (653)

359. COMMENT: Compare the cost of insurance for a gas combustible four-door sedan versus an electric vehicle four-door sedan. New Jersey residents must bear the cost of extra insurance premiums on electric vehicles. If New Jersey motorists get into a car accident with an electric vehicle, there is also the cost of replacing that vehicle if totaled, which could be greater than an accident in a comparable ICE vehicle. Also, there is the cost of replacing the battery in the EV versus the battery in an ICE vehicle. (44)

360. COMMENT: Cost of car insurance and homeowners' insurance are higher for EVs. (406)

361. COMMENT: Most New Jersey residents cannot afford the additional financial cost and burden of an EV. Some commenters state that the rules will benefit only the privileged, elite, and/or wealthy. (152, 328, 393, and 496)

362. COMMENT: The rules will devastate residents who cannot afford an EV and do not have access to public transportation, thus losing their jobs and homes. (290)

363. COMMENT: The rules will strain everyday citizens who rely on private transport for their daily lives. As the State does not have an adequate public transportation network, the rules will reduce the State's residents' autonomy. There should be a greater discussion of creating a more cost-effective plan to reduce emissions without bankrupting normal people. (713)

364. COMMENT: The Department must consider whether the price of 100 percent EVs will be more costly and disadvantage people of lower income. Even if some less expensive cars are available, the limitations or downfalls of those vehicles could negatively impact the economically disadvantaged. (709)

365. COMMENT: Ordinary people will not be able to afford cars they need to drive to work and for other essential things. (423)

366. COMMENT: This top-down rule will only hurt the most vulnerable people in the State. No amount of tax breaks will help most residents afford EVs. (32)

367. COMMENT: The cost of EVs even with rebates and/or tax credits will be unaffordable and/or a burden for most residents of the State. (181, 246, 406, and 415)

368. COMMENT: The most likely result of the ACC II program is that consumers will keep their older, more polluting vehicles. This is because EVs are not affordable and claims they will soon be less costly than ICE vehicles ignore the increasing costs of materials used for their batteries. The range of EVs decreases significantly in cold weather, which New Jersey experiences. Similarly, for consumers who purchase light trucks, range decreases significantly when hauling heavy loads. (387)

369. COMMENT: Average people, especially low- and moderate-income people, seniors, and students, cannot afford electric vehicles and cannot utilize tax incentives or tax incentives are not

effective. The rule will drive up the cost of operating gas-powered vehicles due to increases in the fuel tax, which will have a major negative impact on the working poor and low- and moderate-income wage earners. More people will not be able to afford a new car, harming them and businesses they frequent if they can no longer drive. (319 and 499)

370. COMMENT: There is a risk that the rules may discourage consumers from purchasing newer cars and will raise gasoline taxes on citizens stuck in these aging, less-safe vehicles. These concerns bear more consideration at a time when more and more Americans are not able to afford regular car purchases. (McLain, 2023). (139)

371. COMMENT: The rules will disproportionately harm lower-income and/or middle-income people who cannot afford EVs or charging platforms. (107, 349, and 411)

372. COMMENT: The rules will affect all middle and minority classes because EVs are costly and unsustainable. The rules have no benefits that outweigh the greatly increased costs to taxpayers due to these rules. (398)

373. COMMENT: Supply issues for cars and/or materials needed for EV batteries may impact the cost of a new car and/or make EVs affordable only for the wealthy. (75, 115, 476, and 625)

374. COMMENT: For the Department to propose and adopt this rule knowing all the challenges, the lack of realistic plans to address them, and the lack of consumer acceptance is the equivalent of the adage “shoot first, aim later.” Electric vehicles are not affordable for a large segment of the New Jersey population. The rules will especially impact low- and moderate-income people, seniors, young people, and families, but will also impact middle class families. CARB in public venues recognized that there will be segments of the population who will no longer afford to own a car. The solution being offered are programs to promote EV buses, ride share, and bicycle

ownership. These are not realistic solutions for New Jersey residents who depend on their cars to get to work, shop, vacation, and see their health care professionals. The Department should explain whether it has done any analysis on how this rulemaking will impact their lives and disadvantaged communities. It is not sufficient to say climate change has negative impacts and, therefore, any burdens we place on individuals or communities are justified. EVs are less affordable, even with government subsidies which will likely not be available in the future, and less convenient. In addition, once this rulemaking goes into effect, as early as mid-2026 (when model year 2027 cars are released), all car prices will be impacted. The costs of EVs, contrary to claims, are going up, not down. This is largely due to unavoidable supply chain and mineral availability and processing issues. While one mine is being contemplated out west for certain minerals, there are no plans for a processing plant. There does not appear to be any short-term or even mid-term resolution to these problems. The Department should not impose draconian mandates based on speculation that these issues will be solved or that prices will come down. Once this rulemaking goes into effect, the price of new ICE vehicles will go up as their supply will be limited, as the State experienced with the supply chain issues during COVID. If the Department is deciding on this rulemaking, then it should be obligated to actually study and evaluate who is being impacted and what those impacts will be. (113)

375. COMMENT: Electric vehicles are generally more expensive than traditional combustion engine vehicles, making them less accessible to many consumers. It is vital to consider the economic impact of mandating the adoption of EVs, especially for lower-income individuals and families. (312)

376. COMMENT: EVs are not within the price range of all consumers, yet ACC II aims to impose these new cars on all New Jerseyans. New Jersey and the Federal government already offer interested consumers financial incentives to choose electric vehicles. While those incentives help to reduce the purchase price by providing cash on the hood or providing a tax rebate (as in the case with the Federal incentive program), EVs still account for less than 10 percent of all new vehicle sales in New Jersey. EVs and the cost of replacing an EV battery are cost-prohibitive for low-income individuals. EVs limit transportation options for individuals from low-income communities when the State's public transportation system is not convenient or reliable and having a vehicle to get to work, school, appointments, or to the store is a necessity. (9)

377. COMMENT: The Department should not adopt the rules because EVs are not affordable to purchase, there is increased damage when EVs are involved in accidents, and EV batteries have a short lifespan and are expensive to replace. (687)

378. COMMENT: Electric vehicles are more likely to be totaled if in an accident, increasing insurance premiums. (185 and 506)

379. COMMENT: The cost to repair and maintain an electric vehicle is far more than that of a traditional combustion car. There is no market for affordable or cheap electric vehicles. When an EV fails, it is largely related to one of three parts: the battery, the motor, or the supporting electronic systems. This creates a two-part impact on the consumer: first, each of those parts is enormously expensive to replace in relation to the value of the vehicle, meaning it is cost-prohibitive to keep an out-of-warranty car on the road and, therefore, it is more cost-effective to recycle the vehicle than to fix it. Further, shortening the life cycle of the vehicle shrinks the pool

of available used cars. As the State saw post-pandemic, when there is a limited supply of vehicles, the market prices inflate beyond what a working person can afford for what would otherwise be affordable cars. (2)

380. COMMENT: EVs are unaffordable for the vast majority of New Jerseyans and have other hidden costs. The average price of an electric vehicle this year is over $53,000. New Jersey's per capita income is $46,691, which clearly means that an EV purchase will be difficult for many New Jersey residents. These facts make it clear policies requiring that the only new vehicles allowed to be sold are EVs will hurt low-income citizens the most, who are disproportionately minorities. (342)

381. COMMENT: The cost of an electric vehicle is burdensome to most New Jersey residents. The base price for a 2023 Ford F-150 Lightning starts at $61,869, while the suggested retail price of a traditional 2023 Ford F-150 is just above $43,000. The Kelley Blue Book reports the average price for a new EV at $55,000 while the average four-door sedan costs around $35,000. Going beyond that initial $20,000 price difference, the American Automobile Association also estimates that EV owners spend, at a minimum, $600.00 more annually on maintenance than ICE vehicle owners. The initial cost and maintenance of EVs is an overwhelming burden to ask of consumers. Going beyond that initial price tag, reporting by MotorTrend found that it can cost up to an estimated $18,000 to install Ford's solar-powered home charging system. (227)

382. COMMENT: The current electric vehicle lineup represents a considerably more expensive option for New Jersey residents than a comparable combustion vehicle; if the State moves to further limit options for consumers those limited options that remain will only get more expensive as demand increases. (2)

383. COMMENT: Not all consumers can afford EVs. The average cost of a new electric vehicle averages about $60,000. (1)

384. COMMENT: For many motorists, the only way they can access effective transportation is through purchasing an affordable used car. If they want to stay with the existing fleet of gas-powered cars, those prices will be increasing as the supply drops and cost of maintenance increases over time. If they want a used EV, they may not be able to afford it. If the battery needs to be replaced after a few years, and the cost of a new battery alone is around $25,000, not to mention the cost for the rest of the car, they may be effectively excluded from car ownership and the freedom of mobility that comes with being a motorist. These people still need to get to work. NJ Transit may not be able to handle such a widespread expansion if many people are forced to use the bus to commute from their suburban home to their suburban jobsite, and there will likely be delays. Under the existing framework, these people have personal vehicles that afford them the freedom to leave when they choose and pull up right to their destination. The high cost of batteries also has an impact on the cost of car insurance, as some insurance companies are already writing off fairly new vehicles with low miles because slight damage to the battery means the entire pack must be replaced at a five-figure cost. This leads to higher premiums for these cars and ultimately for all motorists. This is a problem that seems likely to increase as EVs make up an increasing share of the vehicle fleet. (70)

385. COMMENT: New Jersey's commitment to reducing greenhouse gas emissions from the transportation sector is appreciated. However, adopting and implementing ACC II will create consumer price impacts unless important issues such as decreasing options to purchase new vehicles and increasing new vehicle prices are addressed. Although the Department states that

the regulation only requires manufacturers to make ZEVs, the direct result will be felt only by families and individuals across the State. Consumer impacts, especially the impacts on those with low- and fixed-incomes, must be front and center of the discussions. The Department must consider the affordability of vehicles for low- and middle-income families. The average EV costs $65,041 in 2022, while the overall average automobile costs only $48,681, according to Kelly Blue Book data, which is a $16,360 upfront price differential. Clearly, new EVs are out of the price range for the average New Jersey resident and the initial purchase of an EV is not one that working-class families can often consider. And contrary to popular opinion, the cost of EVs has been steadily increasing since 2015. Today, the average EV costs well over $60,000, a price which can only be considered affordable by the upper quintiles of income earners. This is not an option for the average working-class family.

Regarding the used vehicle market, a National Automobile Dealers Association study on the cost of ownership estimated that after five years, EVs depreciate $43,515 in value, while ICE vehicles average only $27,883 in depreciation. This depreciation almost eliminates any residual value advantage of the higher-priced EVs after only a short period of usage. If EVs become a non-viable option as used cars due to substantial depreciation and cost of battery replacement, used car markets operating under EV mandates will see very constrained supply despite sustained demand, eventually making even used cars too expensive for many working-class families. (103)

386. COMMENT: A recent study by the United Way found that the cost to live in New Jersey is expensive. While the Federal Poverty Level for a family of four in the United States on average is $26,500 per year, in New Jersey the average cost of living for a family of four is $82,176, over

300 percent higher than the Federal Poverty Level. More shocking, about 1.3 million households, or about 37 percent of all residents in New Jersey, are struggling to pay their bills. This is 2021 data, and the bills in all sectors just keep going up. During this period of high inflation, the cost of living is rising faster than wages. People in New Jersey are hurting, and costs matter, particularly the monthly costs of necessary utility bills. The Department must understand that many people living in New Jersey cannot afford any motor vehicle at all. With 37 percent of the State struggling to pay bills at all, many residents may not own a car or, if they own a car, it was purchased as a used vehicle. For many, a new vehicle is simply not attainable. The average cost of a new EV is over $50,000, more than many New Jersey residents' yearly income. Such an expensive purchase is simply not realistic. The Department must assemble and consider facts relevant to the potential financial impact the rules will have on people who do not own an EV. (394)

387. COMMENT: The rules would create a divide between wealthy people who will still be able to afford to buy the cars being allowed to be sold and everyone else, especially low- and moderate-income people, who are being told to take an EV bus, ride share, or buy a bike. This policy seems contradictory to the Department's previous policies in support of disadvantaged communities and to support policies to make us stronger and fairer. (113)

388. COMMENT: There are significant economic benefits associated with adoption of ACC II. Operating expenses, including fuel and maintenance costs, are typically lower for ZEVs. A recent survey by Consumer Reports found that electric vehicle owners pay around half as much to maintain and repair their vehicles compared to owners of conventional cars. A recent analysis by Energy Innovation also found that today's leased EVs are the cheapest option for new car

buyers. Taking the full cost of ownership into account, for all nine of the most popular EVs on the market below $50,000, lifetime ownership costs were "many thousands of dollars lower than all comparable ICE (internal combustion engine) vehicles' costs, with most EVs offering savings of between $6,000 and $10,000." These savings will be even more pronounced for used ZEVs, which will become increasingly available as ZEV adoption rates increase. Additionally, ZEV investments, including those from utilities, can put downward pressure on rates for all utility customers. (292)

389. COMMENT: ACC II will save drivers significant money in fueling and maintenance costs while also helping to keep vehicle sales in New Jersey. Even today, electric vehicles are cheaper to own and operate than a comparable gasoline vehicle, providing significant savings for families, and we know that transportation is one of the largest household energy burdens. While upfront costs of new electric vehicles may be higher today than a gasoline vehicle, EV upfront costs are lowering and the State and Federal governments offer robust rebates to help offset this price difference. In a recent report by Energy Innervation shows that leased EVs are actually the cheapest option for drivers today, and ACC II only affects new vehicle sales and around 25 percent of drivers purchase their vehicles in the new market. (291)

390. COMMENT: The ACC II program will result in economic benefits to the State by generating cumulative net societal benefits (the sum of public health and climate benefits, net cost savings for vehicles owners, and net utility costs from increased electricity demand for electric vehicle charging) of up to $97 billion. (535)

391. COMMENT: A 2022 study showed that 96 percent of EV owners across the country say they will purchase another EV in the future. The main reason is that consumers save money by

driving an EV. Due to reduced fuel and maintenance costs, a typical driver can expect to save between $6,000 and $12,000 over a vehicle's lifetime by switching to an EV. Fuel savings alone for drivers in the State ranges from $22.00 to $36.00 per fill-up, depending on vehicle type. (79)

392. COMMENT: Long-distance travel will take more time with an EV. For example, it can take less than 24 hours to drive to Florida in a gas car. An EV will take two to three days. Even if there are savings on fuel, one would have to pay for lodging all the way down. (135)

393. COMMENT: According to a United States Department of Energy Argonne National Labs presentation, the levelized cost of driving (LCOD) on a dollar per mile basis for a midsize sedan for a conventional gasoline-fueled vehicle is only slightly less cost efficient when compared to a BEV with a 300-mile range (BEV 300). Similar results are identified for a small SUV in the "high tech future." A hybrid electric vehicle is shown to have an even lower LCOD than the conventional gasoline vehicle. This more cost-effective solution is limited by ACC II. (251)

394. COMMENT: The total cost of ownership over 10 years of an EV compared with an ICE vehicle relies on California studies that do not apply to New Jersey. California has much higher fuel prices, lower vehicle miles travelled per car, a different climate, more pollution, and different demographics. These studies make certain assumptions about cost savings that seem optimistic in a market that has not yet developed. No one knows how the cost of EV repairs will remain over time, or even if there will be enough service centers to deal with repairs. These studies do not consider the resale value of EVs versus ICE vehicles. However, the resale EV market is weak. Once an EV battery is degraded down to 70 percent, it must be replaced at the cost of $20,000 or more. Few people can afford that, and that known liability will decrease the

value of used EVs. On the other hand, used car values of ICE vehicles are well known and established. (113)

395. COMMENT: Based on New Jersey's 2022 EV sales, the ACC II program will require more than a four-fold sales increase in New Jersey, where the average transaction price of EVs is currently about $58,725. Based on this average transaction price, EV buyers are far more likely to be affluent single-family homeowners with modern electric panels just a few feet from their garage where they will charge their EVs. These buyers do not represent a full cross-section of New Jersey's new car buyers. Achieving even 40, 70, or 100 percent of the new car market will require reaching buyers of more moderate means and action well beyond automakers' ability to produce more EVs. Purchase incentives can be a persuasive and effective way to address vehicle affordability and interest customers in purchasing an EV, as EVs continue to cost substantially more than a comparable gasoline-fueled vehicle. The compounded effect of Federal and State incentives is necessary to equalize purchase costs. There should be additional funding to expand existing tax rebates of consumer purchases as well as rebates on EVs.

New Jersey's State-funded consumer tax incentives will become even more critical to the State's goals of greater consumer EV adoption. The recently enacted Inflation Reduction Act redefines new clean vehicle credits. When signed into law in August 2022, approximately 70 percent of previously eligible vehicles were unable to qualify for credits due to a North America assembly requirement. Also, starting on January 1, 2023, MSRP and income caps went into effect and starting with the release of proposed guidance from the U.S. Treasury Department in March 2023, the credit is split in half with requirements tied to critical minerals ($3,750) and

battery components ($3,750). When the battery content requirements go into effect, the number of vehicles that will qualify for the full credit is expected to drop further. (457-1)

396. COMMENT: The Department should adopt the rules to reduce the overall cost of transportation by converting to electricity and reducing dependence on unreliable foreign sources of oil and gas. Electric vehicles are less complex and, thus, less costly to build and maintain. Also, using electricity is more efficient than using fossil fuels. The cheapest gas-powered car in the U.S. available in New Jersey in 2023 is the Nissan Versa S. It is listed in Car and Driver as costing $17,075. The cheapest electric powered car available in the U.S. in New Jersey in 2023 is the Chevy Bolt EV LT at a cost of $27,495 according to Car and Driver. However, the electric car would cost the buyer less than the gas car if the buyer can utilize eligible rebates ($7,500 Federal rebate and $4,000 State rebate). The buyer also saves through the State sales tax exemption, which in the example of the Chevy Bolt EV LT would save the buyer $1,821.54 that the buyer would have to pay if the vehicle were a gas-powered vehicle. The net effect is that the electric car could cost the hypothetical electric car buyer $14,174 versus $18,206.21 to purchase the gas car. Further, if the cost of an ICE vehicle is on average higher than the cost of a ZEV, that additional expense is compensated for by savings on fuel, which would average about $600.00 a year. (277)

397. COMMENT: In terms of cost, with the Federal tax credit of $7,500, and New Jersey's EV rebate of $4,000, a consumer can purchase a new 2023 Chevy Bolt for a little over $21,000. (493)

398. COMMENT: If electrification of the transportation industry and the 80X50 goals remain priorities for New Jersey, the ACC II rules provide greater certainty than the other options.

However, an aggressive outreach and education plan is necessary to educate the public on incentives. The plan should encompass working with manufacturers to implement a plan for environmental justice to provide under-market vehicles to underserved communities, including incentives for ride sharing, and to provide vehicles under-market coming off rental company leases. As it stands now, these manufacturer incentives are options, not directives. Further, marketing plans from auto companies need to focus on mid-market and lower-income buyers who rely on used cars; there are now no used car secondary markets in ZEVs since the incentives only apply to new cars. (302)

399. COMMENT: Existing incentive programs are depleted quickly and do not provide a large enough price reduction for many New Jersey consumers. Even with such deductions, consumers are not buying EVs at the rate mandated by this rulemaking. If the government wishes to mandate a specific technology, it should bear the full financial burden associated with implementing and supporting that technology instead of passing part of that burden onto its residents. (312)

400. COMMENT: The Clean Air Council recommended that the Department develop greater financial incentives for consumers to purchase zero emission vehicles, while being sensitive to our current economic climate and fiscal challenges of the State. One of the Council's key recommendations is a zero-emission vehicle purchase rebate program. Other recommendations include extending the State tax exemption to include new and used PHEVs, establishing incentives for local government fleet purchases, and reducing vehicle registration fees on all electric vehicles. The State should also develop non-financial incentives for electric vehicle owners to encourage greater use of these vehicles, such as preferential parking. (202)

401. COMMENT: Market forces will encourage EVs but government incentives, such as cash rebates, continue to be needed. (58)

402. COMMENT: The ACC II rules complement and reinforce State and Federal incentives and overcome initial cost barriers for consumers and companies. (376)

403. COMMENT: The State does not provide real incentives to purchase an EV. Offering tax incentives that have no direct impact on a tax refund or a $4,000 incentive, which is enough to pay for a plug is not an incentive to purchase an EV that is very limited in its capabilities. With the rise of electricity costs in a home, it is becoming just as expensive to charge a car as it is to fill up at a gas station. (152)

404. COMMENT: EVs are too expensive. The State will have to provide rebates or other financial assistance for EV purchases. (458 and 612)

405. COMMENT: If the average family cannot afford an EV, the State will have to provide grants at the cost of taxpayers. (129)

406. COMMENT: There should be more financial incentives for low-income families before mandating the deadline for EVs. (412)

407. COMMENT: If consumers wish to purchase EVs, they should be allowed to do so, but without State and/or Federal subsidies. (387 and 593)

408. COMMENT: Working people will have to pay higher taxes for electric cars for the poor just like they have to pay for everything else. (232)

409. COMMENT: People are still waiting for low cost EVs; incentives can help. Education is also important. (488)

410. COMMENT: If consumers want an EV, they should be able to get one but not subsidized by working class and poor taxpayers who can barely afford a car at all and who cannot afford an EV even with incentives. (216)

411. COMMENT: If EVs are so great then the need to subsidize the sale of EVs with taxpayer-funded incentives is not only unnecessary but also artificially inflates the cost of these vehicles. When government becomes involved in financing enterprises, the cost of doing business increases and the cost unjustly falls on the shoulders of current and future citizens of our country. (119 and 270)

412. COMMENT: Gas-powered automobiles are reliable and relatively inexpensive compared to EV models. Lower income people rely on secondary markets like used automobiles. The process of creating batteries and driving up the costs of EV infrastructure is counterproductive. (353)

413. COMMENT: There is no price parity between ICE vehicles and EVs. While a low-end EV may be comparable to an average SUV, they are not comparable vehicles. A family of four or more may need a large SUV. A comparably sized EV is $20,000 to $30,000 higher in initial cost. Incentives, even where they exist, do not make up for that difference. Nor is there any guarantee that State or Federal incentives will exist when ACC II takes effect. Incentives should not be part of the cost or economic calculations. Incentives are not funded with free money. Taxpayers or ratepayers pay for them. They act as more a subsidy for wealthy people funded largely by those who cannot afford EVs. (113)

414. COMMENT: The proposed ban on gasoline cars will penalize the ordinary working people of New Jersey and make the State even more unaffordable. It is unconscionable to be using

taxpayer dollars to subsidize the purchase of EVs for upper income people who can afford them if they really want them. (124 and 393)

415. COMMENT: Providing subsidies and rebates just shifts the burden onto taxpayers so the average person loses. (115)

416. COMMENT: EVs will never be a cost-effective alternative for Americans and no subsidies should be given. (540)

417. COMMENT: EVs are not within the price range of all consumers, yet ACC II aims to impose these new cars on all New Jerseyans. New Jersey and the Federal government already offer interested consumers financial incentives to choose electric vehicles. While those incentives help to reduce the purchase price by providing cash on the hood or providing a tax rebate (as in the case with the Federal incentive program), EVs still account for less than 10 percent of all new vehicle sales in New Jersey. EVs and the cost of replacing an EV battery are cost prohibitive for low-income individuals. EVs limit transportation options for individuals from low-income communities when the State's public transportation system is not convenient or reliable and having a vehicle to get to work, school, appointments, or to the store is a necessity. (9)

418. COMMENT: On the high, luxury end of the EV market, with government incentives, there is price parity. But this high-end market is already not affordable for most of the market. At the lower end, EVs are substantially more expensive than an ICE vehicle, even with incentives. This is true for both new car sales and leases. Leases make up a substantial part of the new car market. Consumers who lease have a certain down payment and cost in mind that dictates their vehicle choice. EV lease prices do not meet those buying criteria. (113)

419. COMMENT: The adverse economic impacts of the rules are not a decade away. Instead, residents will begin to see them as early as 2026, two years from when this rulemaking is adopted. If the Department adopts this rulemaking in 2023, as it declared it intends to do, it will impact model year 2027. These impacts will get worse and worse each year thereafter. If a dealer cannot sell the EVs delivered, they will also not be able to sell ICE vehicles to meet the demand. This will only exacerbate the cost and social issues. These impacts are not discussed in the notice of proposal Summary. (113)

RESPONSE TO COMMENTS 289 THROUGH 419: The Department acknowledges concerns about higher upfront costs to purchase or lease a new ZEV compared with an ICE vehicle with similar features, functionality, style, etc. Although the typical ZEV model currently has an upfront purchase price that is higher than a comparable conventional vehicle model, when considering total cost of ownership (TCO), an owner could see long-term savings on fuel and maintenance, resulting in total net savings over the course of vehicle ownership. As the Department explained in the notice of proposal, the total cost of ownership over a 10-year period for a battery electric vehicle purchased in 2026 is expected to result in a $1,732 cost-savings compared to an internal combustion engine vehicle. 55 N.J.R. at 1784. The potential cost savings of a battery electric vehicle purchased in 2035 is $6,683 when compared to an internal combustion engine vehicle. *Id*.

The TCO analysis conducted by CARB and reviewed by the Department "accounts for a number of cost factors, including vehicle price, loan fees, sales taxes and registration fees, fuel costs, maintenance costs, and a home charger capital investment for some buyers …" ACC II FSOR Appendix A at 22. The TCO analysis also includes insurance cost. CARB ISOR at 144-

45. CARB assumed maintenance costs of BEVs to be 40 percent lower than maintenance costs of comparable conventional vehicles. Due to warranty and useful life requirements in the rules, CARB did not assume that BEV and PHEV batteries would require replacement at the end of their useful life during the 10-year total-cost-of-ownership analysis period. ACC II FSOR Appendix A at 22 and 141. As CARB noted, "[e]ven if some batteries or portions of battery packs prematurely fail, the majority of BEVs are not expected to require a full battery replacement within their designed lifespans. The warranty and durability requirements in the ACC II regulations are designed to minimize the occurrence of premature failure and remedy them if they occur." *Id*. at 47.

Although a ZEV costs more than a comparable conventional vehicle, the gap is closing. "The cost of the average EV in the second quarter of 2023, was about $54,300 while the average cost of all new light-duty vehicles in that time was about $48,500. Year-over-year, EV prices declined more than $10,700 from the second quarter of 2022 while the average cost of all new light-duty vehicles rose over just $2,000." Alliance for Automotive Innovation, Get Connected, Electric Vehicle Quarterly Report (Second Quarter, 2023), available at https://www.autosinnovate.org/posts/papers-reports/get-connected-q2-2023. However, as CARB cautioned, "the current average transaction price is a misleading metric given that it obscures the true variability in prices of ZEV that auto manufacturers offer and can be skewed higher by a small volume of high-priced vehicles …" ACC II FSOR Appendix A at 133.

In response to concerns about faster depreciation of ZEVs, CARB included requirements "to guarantee access to service information, assure minimum durability, and provide the protection of minimum warranties …" CARB ISOR at 70. As CARB explained, the "ZEV

assurance measures are necessary to address varied operating characteristics and consumer needs and priorities for household transportation: durability for vehicle longevity and value retention; warranty for vehicle longevity and peace of mind in avoiding costly unexpected repairs; and data availability for transparency to drivers and prospective used vehicle purchasers, reassurance about vehicle component health, and availability and convenience of service options." *Id*. at 71. See also the Response to Comments 87 through 115, regarding battery durability and other requirements.

As the ZEV sales mandate increases and technology advances, economies of scale and more EV choices for consumers are likely to result in price parity of EVs with comparable internal combustion engine vehicles. As manufacturers will be required to produce more compliant vehicles as states adopt the ACC II regulation, "[t]he increased production volume tends to drive down the additional incremental per vehicle cost, and gives manufacturers more flexibility in recovering their initial costs to adapt to California standards." 55 N.J.R. at 1783. According to CARB, "ZEVs are expected to reach purchase price parity with conventional vehicles within the years of the ACC regulations." ACC II FSOR Appendix A at 153. In other words, ZEVs will be as affordable as conventional new vehicles and more affordable when considering total cost of ownership. *Ibid*.

Also of note is that an average transaction price may not include tax incentives or rebates that do not occur at the point of sale. *Id*. To assist with the purchase price, the State has various incentives in place. Pursuant to N.J.S.A. 54:32B-8.55, zero-emission vehicles (as defined by the New Jersey statute), are exempt from the vehicle sales tax, which is currently 6.625 percent. 55 N.J.R. at 1784. The BPU also has a cash on the hood program for electric vehicles, Charge Up

New Jersey (https://chargeup.njcleanenergy.com/). In addition to State-sponsored programs, there are also Federal programs to support the purchase of all-electric, plug-in hybrid, and fuel cell electric vehicles. For example, there is a Federal tax credit available to individuals who purchase a qualified vehicle and meet the income requirements. See Federal Tax Credits for Plug-in Electric and Fuel Cell Electric Vehicles Purchased in 2023 or After (https://fueleconomy.gov/feg/tax2023.shtml). Similarly, there is a Federal tax credit available to a business or tax-exempt organization that buys a qualified commercial clean vehicle. See Commercial Clean Vehicle Credit | Internal Revenue Service (https://www.irs.gov/credits-deductions/commercial-clean-vehicle-credit). Although the Department cannot predict how long the State and Federal incentives will be available, the Department anticipates that incentives will help the affordability of EVs at least during the early years of the rules, when price parity concerns are greater.

As another mechanism to increase ZEV affordability, the ACC II rules include a provision that allows manufacturers to earn an additional 0.10 vehicle value for "a 2026 through 2028 model year ZEV or PHEV delivered for sale with an MSRP less than or equal to $20,725 for passenger cars and less than or equal to $26,670 for light-duty trucks." ACC II FSOR Appendix A at 153; 55 N.J.R. at 1777. This flexibility may encourage manufacturers to increase production in the more affordable EV market segments in the early years as they work toward parity and economies of scale for all market segments.

The ACC II program also allows vehicle manufacturers to earn additional vehicle values through two additional environmental justice flexibilities: community-based clean mobility programs and vehicles sold at the end of lease to participating dealerships. See 55 N.J.R. at 1776-

77. The flexibilities are intended to encourage manufacturers to provide access to clean mobility solutions in overburdened and low-income communities and incentivize used ZEVs and PHEVs for lower-income consumers.

As more ZEVs are produced, the variety of ZEVs in all price ranges is also expected to increase. Also, as more ZEVs are sold, more ZEVs will be available in the used vehicle market, which will also increase access to ZEVs for residents in the State. In addition to being able to access used ZEVs, customers seeking vehicles at lower price points will continue to be able to purchase used conventional vehicles throughout and well beyond the period of the ACC II program.

The Department recognizes that more is needed to ensure equitable access to zero-emission vehicles and clean transportation. However, as explained in the Response to Comments 675 through 687, adopting an alternative to Federal requirements other than a California program is not an option. Under the Clean Air Act, New Jersey has only two choices when it comes to emission standards: the emission standards set by the EPA or those set by California. This is referred to as "identicality."

Although the Department is constrained by the identicality requirements of the Clean Air Act, the Department will continue to evaluate a variety of regulatory mandates, policies, and funding sources to support incentive programs to transition the transportation sector, reduce emissions, and directly address emission and equity issues in overburdened communities in a collaborative manner. As part of the State's ongoing efforts to encourage transportation electrification, the State has awarded millions to increase infrastructure and electrify vehicles operating in and around overburdened communities and will continue to focus available funding

on such efforts. See https://dep.nj.gov/drivegreen/emobility-awarded-projects/and https://dep.nj.gov/drivegreen/multi-unit-dwelling-toolkit/. See also the Response to Comments 420 through 465, Response to Comments 87 through 115, Response to Comments 608, 609, 610, 611, and 612, and Response to Comments 613 through 632.

Cost of Charging Infrastructure and Electricity

420. COMMENT: The time it takes to charge EVs will be an enormous drag on the economy. (528)

421. COMMENT: As EVs are often more expensive to purchase and maintain than their gas-powered counterparts, expediting the demand for these vehicles might create an unnecessary burden on New Jersey residents. These vehicles require charging ports to be built, whether it be at home, in parking lots, or other public places. Often, the burden falls on the State to build the necessary infrastructure to fully support EVs. (8)

422. COMMENT: Gas-powered automobiles are reliable and relatively inexpensive compared to EV models. Lower income people rely on secondary markets like used automobiles. The process of creating batteries and driving up the costs of EV infrastructure is counterproductive. Currently, the State offers tax rebates for EVs, which means the lower class, taxed citizenry are subsidizing the wealthy purchasers of EVs. By divesting from gas-powered vehicles, the State will weaken the market for the people relying on that transportation infrastructure. (353)

423. COMMENT: The plan imposes a substantial expense on property taxpayers, without a necessary funding mechanism, for building and maintaining robust charging infrastructure. Even with historic investments over the next decade, there is no guarantee that the infrastructure to

support such a massive network of charging stations can be built in just 12 years in a reliable manner and maintained to support our large population. (14)

424. COMMENT: Gas-powered vehicles and their unchecked carbon emissions undoubtedly impact the environment. Accelerating EV demand may place a burden on residents due to higher costs and the need for additional charging infrastructure. (6)

425. COMMENT: As the Department considers options to reduce transportation emissions, it should consider and fully analyze what infrastructure investments will need to be made to accommodate EV charging and how low-income residents living in multi-unit housing will be impacted. (251)

426. COMMENT: There is substantial cost associated with upgrading the electric power and distribution network and install the necessary charging infrastructure. (69)

427. COMMENT: New Jersey will have to make major investments in modernizing its aging power grid to handle the significant increase in demand from new cars and home appliances. Ultimately, these upgrades are another expense that would be passed on to New Jersey's families and businesses for years to come. The Energy Master Plan estimates that an electrification policy will result in a doubling or tripling of electricity demand. This is on top of an already growing demand for more power. The result will be blackouts and brownouts and economic and social harm. (14)

428. COMMENT: Most of New Jersey's residents live in apartments they rent or have homes that lack EV chargers. For the State's working-class homeowners, purchasing the infrastructure to have an EV charger in their homes is just not a financial debt they can incur. (1)

429. COMMENT: The Department should not adopt the rulemaking because of the cost to install charging infrastructure in homes, other buildings such as apartment buildings, senior citizen communities, and dormitories, and/or businesses, which some commenters state will be too expensive for the majority and/or will require costly electrical upgrade. (83, 84,125, 129, 143, 148, 184, 190, 328, 343, 351, 415, 433, 463, 528, 531, 538, 582, 588, 639, 641, 648, 653, 663, 691, 693, 698, and 722)

430. COMMENT: The cost of installing the infrastructure needed to charge vehicles around the State will be exorbitant. (528)

431. COMMENT: The rules will require homeowners to spend tens of thousands of dollars to install 30-50 amp charging circuits in their homes and upgrade the size of their electric service. The lead times on electrical materials are very long. The current lead time on something as simple as a meter pan, which houses the utility company meter, is 60 weeks. Circuit breakers can take as long as 16 months to obtain. It is unclear how all of these services will be upgraded. (170)

432. COMMENT: The Department must consider the cost and time of building out the necessary charging infrastructure across the State. (31 and 190)

433. COMMENT: If the Department wants to mandate EVs, the State should come up with the money for every resident who is forced to buy an EV to upgrade their electric service and to pay for the charging stations which will be required. Examples of buildings include apartment buildings, townhouses, senior complexes, and other dwellings. (208 and 582)

434. COMMENT: Apartment complexes do not have charging stations and rentals become less affordable every year, which will increase the financial hardship on low- and middle-income people. (49)

435. COMMENT: The rules will require an expansion of the charging network, which should not be at taxpayer expense. There is no justifiable reason the public should pay for charging infrastructure any more than they pay for gas stations. (627)

436. COMMENT: Numerous studies have shown that retrofitting residential and non-residential charging is five to six times more expensive than installing charging stations during new construction. For existing residential and non-residential buildings, installing infrastructure during any significant renovations, such as parking lot paving, electrical panel upgrades, etc., also substantially reduces costs. The State should adopt non-residential building codes that require installation of EV-ready charging capabilities in a significant portion of all new parking at a workplace and public locations. Building codes should require that every new unit in a multi-family dwelling with available parking have at least one EV-ready parking space. Each EV-ready space should provide, at a minimum, low-power level 2 (208/240V, 20A) terminating in a receptacle or an electric vehicle supply equipment, with EV-ready signage posted at each parking space. The State should consider the recommendation for level 2 power charging levels as the bare minimum requirement, while recognizing that mainstream customer satisfaction may require higher power charging (which is why CARB mandated that every new model year 2026 and later EV contain a portable charger capable of charging the vehicle at 5.76 kW (208/240V, 30A). (457-1)

437. COMMENT: Residents would be forced to take public transportation because they cannot afford to have their homes retrofitted to charge EVs and would have to use a public charging station. (453)

438. COMMENT: The Department should not adopt the rules because it will be too expensive to charge an EV at public charging stations for those who cannot afford, do not have access to charging infrastructure at home, and/or run out of charge on the road. (26, 125, 223, 279, 473, 498, and 639)

439. COMMENT: The charging network for EVs is not affordable to use. According to articles, public charging stations, when available and working, are almost as expensive if not more expensive than filling up with gasoline. (54)

440. COMMENT: It is important to ensure low- to moderate-income and multi-family dwelling residents have identical access to the low-cost, convenient, and reliable level 2 home charging that single-family homeowners enjoy. Special attention should be given to the infrastructure needs in the State's underserved communities to ensure access to affordable and convenient charging and hydrogen refueling options are made available on an equally aggressive timeline. Multi-family dwelling residents often face the greatest, most costly, and burdensome obstacles to installing residential EV charging. The additional costs to upgrade the electrical panel, install conduit between the electrical panel and their parking space, and the logistical challenges of securing building owner approval, coordinating the billing with the building owner, and persuading an owner to make a long-term investment on a rental property, make it near impossible to be an EV driver in a multi-family dwelling. Multi-family dwelling residents could be forced to charge elsewhere, such as DC fast charge stations or public chargers, which is much

more expensive, less reliable, and much less convenient than home charging. It is unreasonable to expect residents of multi-family dwellings to pay two or three times as much for charging and spend hours away from home each week fueling their EVs. The Department should set targets for residential charging and then monitor and track progress toward meeting those targets. For example, it seems reasonable that in 2030, when ACC II requires 68 percent of new vehicles to be electric, that 25 percent of low- to moderate-income and multi-family housing units have access to level 2 charging at home. The State should also adopt building codes addressing new construction and retrofit requirements for EV-ready residential and commercial parking. Building codes that address new construction are not nearly enough to support a transition to electrification. For example, new residential construction typically accounts for about one percent of all residential units each year. Thus, new building codes would only provide residential charging in about 15 percent of the residential units by model year 2035. Therefore, New Jersey should consider public and private programs to support retrofitting of existing homes and multi-family dwellings, such as apartments, condos, and townhouses. Although retrofits are far more expensive than incorporating EV-ready infrastructure at the time of new construction, they will be necessary to support increasing customer adoption of EVs.

(457-1)

441. COMMENT: Issues of equity are a particular challenge as New Jersey attempts to reap the benefits of electric vehicles in highly impacted urban areas. The Department must ensure that low-income communities and communities of color, which have historically been exposed to disproportionately high levels of pollution, share in the benefits of transportation electrification. Among other things, the Department should explore charging solutions for multi-unit dwellings

(apartments, condominiums, townhouses, etc.), as well as for urban areas without private garages and driveways. (202)

442. COMMENT: The practical use of EVs benefits wealthier users. Charging infrastructure is a critical component for EV usage, with access to chargers (and specifically fast chargers) a major consideration in purchasing an EV. Wealthier users are far more likely to live in single family homes where installation of a fast charger costing thousands of dollars is simply a matter of fact. Lower income families who are more likely to reside in apartments or rented properties do not have the option of installing their own personal dedicated fast chargers. Even the location of charging infrastructure tends to benefit the wealthier, whiter, male demographic that makes up 75 percent of the individuals who purchase EVs. A recent MIT study on California, which New Jersey appears to be emulating, examined EVs and equity noting the disproportionate access to public chargers and that public charging, when available to lower income communities, typically costs more than home charging. By creating disparities in access to the "fuel" through charging network realities this further exacerbates the differences in transportation equity between the rich and poor. Combine that with what is sure to be higher electricity prices from the requisite generation, distribution, and transmission infrastructure buildout required to meet growing electricity demand, as is often the case, the poor will just keep getting poorer. (103)

443. COMMENT: Some would argue that an increase in demand for electricity will increase the price. However, the price of electricity depends on many other factors, in particular, how much of the electricity is produced from renewable sources. Numerous scholars have looked at the impact of renewable energy on the electricity market. They find that because the marginal

costs of renewable energy are close to zero, an increase in renewable energy generation shifts the supply curve to the right, thereby lowering prices. Also, even if the price of electricity should increase due to increased demand, that is more than offset because consumers no longer need to pay for fossil fuels. A more accurate comparison of prices would compare the total cost to consumers of energy from all sources. (277)

444. COMMENT: The Department should not adopt the rules because it has not taken into account the cost of the upgrades to the electric grid that will be needed to charge the increasing number of EVs. (340, 498, 626, 648, and 691)

445. COMMENT: The State needs a detailed plan to increase the energy infrastructure due to an increased demand for electricity to charge electric vehicles. There will be a significant cost associated with building the new energy producing plants to accommodate the increase in demand to charge consumers electric vehicles. New energy sources will be needed to generate electricity for EV owners to charge their vehicles, and there will be a cost per kilowatt hour associated with these energy sources. When sales of the ICE vehicles is no longer allowed, more electricity will be needed to be produced in New Jersey, and distribution lines and capital infrastructure will need to be added to accommodate the increased demand. Operation and maintenance costs of the electricity generation plants will also increase. This could have an impact on consumers' electricity rates. (44)

446. COMMENT: With all of the subsidies for renewable energy, it is possible that the cost to charge EVs, even at home, will be higher than the comparable price per gallon of gas. (499)

447. COMMENT: It will be a challenge for the working class and/or most residents to afford the increase in electricity bills that will occur due to the rules. (623 and 639)

448. COMMENT: EVs will require more power, which will increase the price of electricity. (143 and 225)

449. COMMENT: Residents will see increased electric bill costs, which are already very high. (653)

450. COMMENT: The Department should address the added cost of having to charge the car every night. (428)

451. COMMENT: The cost of creating an infrastructure to support EVs will require increasing utility rates to fund the buildout, which will put an additional financial strain on residents. (389 and 713)

452. COMMENT: New Jersey taxpayers are being asked to pay for EV stations being installed. (274)

453. COMMENT: Someone will have to pay for the electric infrastructure required to power all these cars. (232)

454. COMMENT: ICE vehicles should not be banned unless electric charging is free. (53)

455. COMMENT: The Department must consider whether the necessary grid upgrades and all of the new zero-emission generation that needs to be installed to meet the State's clean energy goals and meet demand of increased electrification of vehicles and buildings can be achieved using revenue from current utility rates, or how much rates will need to be increased to pay for it all. The Department must also consider the impact of higher utility rates on all ratepayers, from homeowners to small businesses, especially in an inflationary environment where affordability is the State's biggest concern. If higher rates will not cover the cost, the State may end up having to rely on revenues from the general fund or from new taxes to subsidize the costs. (70)

456. COMMENT: The Department should address the anticipated cost to taxpayers and rate payers to build out the charging infrastructure. (204, 208, 340, 474, 647, and 648)

457. COMMENT: The proposal acknowledges that the rules will increase demand for electricity, requiring a buildout of electricity supply and distribution. However, the rulemaking does not sufficiently consider the risks that this increase in electricity demand may pose to the State's economy and citizens. Much of the cost of the electricity system is driven by peak load rather than average load. To avoid frequent blackouts, there must be enough generation and distribution to meet peak demand. (Stott, 1992). This makes electric vehicles a particular challenge for the electricity grid. While the average house uses just over one kW of power, a Tesla can pull 11.5 kW of power. Building a grid that can allow each homeowner to charge multiple electric vehicles whenever they want, potentially increasing their peak demand by more than an order of magnitude, would require a truly unprecedented and eye-wateringly expensive expansion to the electricity grid at a time when consumers are already facing higher utility bills. Alternatively, consumers will have to be trained to time their electricity use to accommodate their neighbors. (139)

458. COMMENT: New Jersey's rural and agricultural communities will be hardest hit by the ACC II proposal. Internal combustion engine vehicles are a necessary part of everyday life for rural Americans, where it is not an easy task to find an electric vehicle charging station. As of 2022, more than 833,400 New Jersey residents live in rural areas at the fringes of the State. These areas take up the majority of the State's landmass and comprise most of the State's farmland. There are nearly 1,000 public electric vehicle charging stations Statewide, but it is unclear how many of those are located in convenient and accessible areas for rural residents.

Rural residents suffer the most from the effects of an aging power grid, as external factors like heavy winds, snowstorms, and over-usage of electric circuits by urban/suburban areas impact transmission. In particular, thousands of residents in rural towns along the Jersey Shore and South Jersey suffered multiple outages in the last few months due to these vulnerabilities. Mandating electrical vehicle use in sparsely populated areas where the power grid is already fragile will be a huge burden on rural constituents.

ACC II will massively increase demands on the New Jersey power grid, which will inevitably lead to higher utility costs for residents who already pay some of the highest electricity rates in the country. The State's most recent electricity rate hike will raise electricity bills by as much as seven percent, depending on the provider. Mandating electric vehicles by 2035 will place more demand on the power grid but will do nothing to increase the supply of electricity. Simple economic theory shows us that an increase in demand without a correlating increase in supply only results in higher energy prices. (227)

459. COMMENT: Forcing the poor to subsidize the wealthy is inequitable and unjust. Yet, because many lower-income New Jerseyans will be unable to afford an EV, and because many do not live in single-family homes where they can install a residential charging system, the subsidies will primarily benefit the wealthiest New Jerseyans, at the expense of the poorest ones, as has happened in California regarding the distribution of vehicle-related pollution emissions. The subsidies and additional infrastructure costs will be paid by the least well-off residents of the State, through higher electricity rates that recoup the costs of distribution system upgrades, high-cost offshore wind development, and the need to provide extensive back-up generation and storage to ensure electric system reliability. (387)

460. COMMENT: The increased demand for electricity, which the State intends to meet primarily with offshore wind and solar installation, and the resulting need for backup storage and generation to keep the lights on, will result in much higher electricity costs for consumers and businesses. The adverse economic impacts of higher electricity costs will reverberate through the entire State economy. Higher electricity costs will lead to an exodus of energy-intensive businesses from the State. It will also reduce economic growth and jobs as businesses and consumers must devote more money to paying for electricity, leaving less for everything else. Businesses will either forego new investment in the State or relocate to states with lower-cost electricity. Further, it will disproportionately harm the least well off in New Jersey, who will be required to subsidize wealthier residents who purchase EVs and install subsidized home chargers. (387)

461. COMMENT: The Department is proposing with these rules to virtually eliminate sales of new ICE vehicles as of January 2027. The total impact of these rules will have far-reaching and cascading effects into the State's economy and on utility ratepayers' pockets; therefore, they must be viewed in a broader economic context than that which the Department offers. Improved air quality and the reduction of greenhouse gas emissions are important public health and public policy goals. However, the issue of concern is who will pay for the proposed far-reaching transition of the transportation industry and the financial impact on utility ratepayers of subsidizing the EV industry.

Utility ratepayers will pay the cost of expanding the electric grid to enable electrification of the transportation. Pursuant to current plans, ratepayers will also continue to subsidize EV charging infrastructure, whether or not they own or lease an EV. Significant upgrades to the

State's electric infrastructure will be necessary if every new car in the State will be powered by electricity as of 2027. At present, most electric circuits in the State would not be able to accommodate the increase in load associated with EV charging even if nearly every customer charged during non-peak hours. Additionally, in the future, ratepayers could be subsidizing Demand Charges that are associated with high electricity usage. For other extensions of new or expanded electric service, such as for new homes, businesses, or industries, the customer requesting the new or expanded service must pay for it in advance and may then receive a gradual rebate as the utility bills for the new or expanded electric use. With ratepayer-subsidized preferential EV charging rates, the recipient of the new or expanded electric service will pay only a portion of the cost; the balance will be paid by all ratepayers. Thus, due to the expanding scope of utility ratepayer subsidies of EVs, expanded EV adoption will impact every ratepayer's electricity bill. Imposing those costs on utility ratepayers without considering their ability to afford them may result in unfair and unanticipated outcomes. The Department should gather and evaluate a broader range of relevant facts, and amend the proposed rules to reflect those facts, before finalizing and adopting the ACC II rules. (394)

462. COMMENT: Currently, the State offers tax rebates for EVs, which means the lower class, taxed citizenry are subsidizing the wealthy purchases of EVs. By divesting from gas-powered vehicles, the State will weaken the market for the people relying on that transportation infrastructure. (353)

463. COMMENT: New Jersey ratepayers, as part of their utility bills, currently subsidize the installation of electric chargers and purchase rebates for EVs, whether or not those same ratepayers own an EV. Currently, each electric distribution company (EDC) in the State has an

EV program where ratepayers are funding public and private EV chargers and some of the "make ready" electrical work that must first be performed before installing an EV charger. The money funding these programs is ultimately collected from ratepayers. Additionally, through the Societal Benefits Charge, which is included in every ratepayer's bill, ratepayers are also funding State rebates to lower the cost of EVs for purchasers who may or may not need this financial incentive to purchase an EV. This means that the State's most vulnerable ratepayers are subsidizing more affluent customers' purchases of EVs and EV chargers.

A report from 2020 by the American Council for an Energy-Efficient Economy found that 25 percent of all U.S. households and 66 percent of low-income households have what is known as a "high energy burden," which is defined as spending more than six percent of household income on utility bills. Additionally, two of every five low-income households have severe energy burdens, spending more than 10 percent of their income on energy costs. This confirms that lower-income households are paying a greater share of their income to utility bills in comparison with their middle income and more affluent neighbors and an increase in utility rates has an even greater impact on households with lower incomes.

With the ACC II rules, the pertinent question for ratepayers is, at what point will ratepayers stop subsidizing EVs and EV charging equipment? Subsidization, especially by those who have less means to do so, should be curtailed once an industry is no longer considered nascent. The rules demonstrate that the "nascent" era of the EV industry has ended or is shortly coming to an end in New Jersey and, therefore, ratepayer subsidization of the EV industry should end as well. In the meantime, while ratepayers are continuing to fund the EV industry, the

Department must take into account this significant financial burden on ratepayers in its rule proposal and evaluate the economic impact on consumers and ratepayers. (394)

464. COMMENT: The rules incorrectly pre-suppose that electric rates will not rise in the coming years. Rates have gone up and continue to do so as ratepayers pay for not just EVs, but many other initiatives such as Energy Efficiency, Offshore Wind, and nuclear power. This will impact a comparison of fuel costs between EVs and ICE vehicles. As the cost of electricity increases due to the need to upgrade infrastructure, associated demand charges incurred at higher levels of electric use, subsidies of electric generation or just energy price inflation, it is unclear whether EV drivers will pay more or less for charging EVs than they would to fuel ICE vehicles. Additionally, even if EV charging is cheaper than gasoline, those same consumers will pay higher electric bills overall to account for infrastructure upgrades and other EV and electric generation subsidies that offset any lower transportation costs. This is important information for consumers, especially those who may just barely be able to afford an EV, to understand when they are evaluating whether to purchase a new EV or ICE before the ACC II rules take effect. It is also important to consider the rate impacts on ratepayers who do not even own a car. (394)

465. COMMENT: The ACC II rules raise infrastructure challenges and the systemic inequity and energy injustice issues that the Department must consider before adopting the rules. In 2022, 441,100 new light-duty vehicles were sold in New Jersey. Of those vehicles, only 31,300 were EVs (7.1 percent) while 402,567 (91.27 percent) were powered solely by gasoline or diesel. Electric vehicle “fuel” efficiency is .364 kWh per mile. According to data provided by the Federal Highway Administration in 2021, New Jersey light-duty vehicles averaged approximately 10,600 miles driven. U.S. Department of Energy data shows that in 2022, New

Jersey registered 6,425,000 light-duty ICE vehicles. If the Department adopts ACC II, New Jersey will have to add over 27 billion kWh of electricity annually to charge vehicles under a 100 percent EV mandate, which only accounts for light-duty vehicles. The Department must ask itself from where this generation is going to come and at what cost to New Jersey's families and businesses. In addition to increased electric generation capacity, the Department must consider what kind of improvements to electric transmission and distribution infrastructure will be required to serve the increased electricity demand and who pays for the upgrades, which include charging infrastructure necessary to serve approximately 6.4 million EVs reliably and affordably. (103)

RESPONSE TO COMMENTS 420 THROUGH 465: As discussed in the Response to Comments 116 through 169, the Department recognizes that an increasing number of ZEVs will require a corresponding increase in charging ports and stations at residences, as well as public charging stations. The Department expects charging at home to be the most common and economical charging method for EV owners. The State has also addressed and will continue to address charging availability at multi-family dwellings which can be more challenging than single-family homes. Legislation requires minimum charging infrastructure in new construction, while grants and education are being used to retrofit existing structures. See the Response to Comments 116 through 169 for a more thorough discussion of the State's efforts to increase charging infrastructure and access to charging.

As CARB understood the critical importance of charging as part of EV ownership, CARB included charging as part of the total cost of ownership when it proposed the ACC II regulation. See CARB ISOR at 143-45; CARB SRIA at 102-109. CARB estimated net savings

for a battery electric vehicle owner both with and without a home charger. See CARB ISOR at 143-45. "For someone with a home charger, they incur an additional capital cost of installing a home charger and receptacle, yet they have lower fuel costs given the cheaper retail price of residential electricity …" CARB ISOR at 144. For someone without a home charger, they still experience annual savings within a year, and almost the same net savings over a 10-year total-cost-of-ownership period ($7,659 vs. $8,835 for owner with a home charger), due to the savings from lower fuel costs. *Id*. at 145. As explained in the Response to Comments 116 through 169, various State and Federal grant programs, as well as Federal tax credits exist to help offset charging installation costs.

The Department acknowledges that increased demand for electricity from ZEV adoption may increase the per kilowatt price of electricity. However, there is some evidence that increased adoption can lead to lower electricity costs for all ratepayers (see https://escholarship.org/uc/item/6dz355d9 and https://chargevc.org/wp-content/uploads/2018/03/ChargEVC-New-Jersey-Study.pdf), although it is unclear if this will be the case in New Jersey. The Department cannot predict the impacts that might be felt by ratepayers, as rates are beyond the Department's authority and depend on a number of inter-related factors, including ZEV owner behavior, the current state of capital investments by utilities, the ebbs and flows of the overall global energy market, and policy, regulatory, and legislative choices that are about the design of electric rates and allocation of costs for transmission upgrades.

While rate design and transmission upgrades are not within the scope of the Department's authority, the Department notes that the Administration, as a whole, is presently engaged on

these issues, which are critical to equity in the overall clean energy transition and not just in relation to the ACC II program. For example, as the Department noted in the notice of proposal (55 N.J.R. at 1783), the BPU, in late 2022, released a report on the modernization of New Jersey's electric grid and is advancing regulatory changes and working with stakeholders to further develop regulatory and policy proposals based on the report's recommendations. See https://nj.gov/bpu/newsroom/2022/approved/20221110a.html.

The Department acknowledges the expense of charging infrastructure, as well as the significance of plentiful EV charging options in public spaces, like parking garages and workplaces; grant funding is available to assist with the cost. Each electric distribution company (EDC) in the State has an EV program where ratepayers are funding the make ready portion of public and private EV chargers, but are not funding the charging stations themselves. See the Response to Comments 116 through 169. To the extent the comments request the Department enact building codes or legislation, those comments are beyond the scope of the Department's authority and this rulemaking. The Department will continue to work with other State agencies, including DCA, which has the authority to amend building codes, BPU, and EDA, to ensure equitable and affordable access to charging.

The comment that this rule virtually eliminates new sales of ICE vehicles in 2027 is incorrect. The annual ZEV requirement for model year 2027 is 43 percent and gradually increases to 100 percent for model year 2035. See 55 N.J.R. 1775; 13 CCR 1962.4, incorporated by reference at N.J.A.C. 7:27-29A.7. As explained more thoroughly in the Response to Comments 16 through 44, a manufacturer must meet its production volume with an equal number of vehicle values and it is theoretically possible that one or more manufacturers would

have enough vehicle values banked to continue producing a small portion of strictly ICE vehicles in model year 2035 and beyond. And as long as those ICE vehicles are CARB-certified, N.J.A.C. 7:27-29A.3(a) would not prohibit their registration in New Jersey in 2035 (or any subsequent year that an ICE vehicle is CARB-certified). Thus, sales of new ICE vehicles would be allowed after 2027.

Impacts on Businesses and Jobs

466. COMMENT: Investments in the U.S. are being spurred with the enactment of the Inflation Reduction Act (IRA) and the Infrastructure Investments and Jobs Act, together with State and Federal vehicle standards. These investments are helping to onshore the electric vehicle industry—creating jobs in the U.S. and helping to make the country a competitive leader in the electric vehicle industry. In 2022, the clean-energy economy accounted for more than three million jobs across the nation with New Jersey among five states that recorded job growth in the sector of more than six percent, according to the eighth annual Clean Jobs America analysis by Environmental Entrepreneurs. The largest jobs growth occurred in clean-vehicle manufacturing, which added nearly 50,000 jobs and outpaced the gas- and diesel-powered vehicle industry by more than 250 percent. (292)

467. COMMENT: Widespread electric vehicle adoption will promote American competitiveness and create good-paying jobs. Due largely to incentives in the Federal Inflation Reduction Act, the industry is continuing to invest at unprecedent speed to scale the domestic EV supply chain at every production stage. Based on research, private sector investments in the domestic EV supply chain total over $200 billion and support nearly 400,000 American jobs. Since August 2022, the

private sector has invested over $70 billion in the domestic EV supply chain and has created over 32,000 American jobs. The U.S. battery manufacturing industry is also quickly scaling to meet demand. Since January 2021, the U.S. private sector has announced over $100 billion in battery manufacturing investments, translating to more than 190 new or expanded processing and manufacturing facilities with enough production to power 10 million EVs each year. The manufacturing capacity is translating to lower battery prices. As of September 2023, battery cells are reported to cost an average of $98.2/kWh, which is a 33 percent drop from March 2022 estimates. (79)

468. COMMENT: An important piece of the rules is that they will go a long way in creating a number of good paying jobs. The EV infrastructure that will need to be built to accommodate all the new EVs on the road is pretty exciting. It is expensive to live here in New Jersey, and these rules will go a long way in creating good family-sustaining jobs. However, the State also needs to ensure that as New Jersey (and the nation) transitions to EVs, there are complimentary policies to ensure no workers are left behind. As the EV industry creates new jobs, there is also going to be a transition of jobs and some jobs that will not be around. So, it is important to ensure that those workers are taken care of as the economy transitions. The Department should support complementary policies (Federal and State policies) that prioritize U.S. manufacturing, because manufacturing jobs, especially union manufacturing jobs, are high wage jobs. (151)

469. COMMENT: The ACC II rules are good for labor in our State, because it will require the build out of the infrastructure necessary to charge the vehicles. Also, it will be good for the country, as more and more electric vehicles, as well as the battery facilities that are necessary to support these vehicles are built here in the United States. The State must also continue working

towards a just transition across the economy, that centers on communities and creates good paying union jobs throughout the State so that everybody can enjoy the family-sustaining benefits that the clean energy economy can create. (657)

470. COMMENT: The State is already lagging behind in the green economy. By encouraging the use of cleaner and more efficient vehicles, the State can invest in a greener future that will drive innovation, add high quality green jobs to the economy, and advance social equity. (18)

471. COMMENT: Embracing ZEVs will create new job opportunities, stimulate innovation, and attract investment in clean technologies. The rules will position New Jersey as a leader in the green economy and help towards a sustainable future. (402)

472. COMMENT: Clearly, jobs will be lost in motor vehicle maintenance and in fossil-fuel based market sectors. However, there will need to be many more jobs in the solar and wind industries, which are growing rapidly, and in the energy transmission, switching, and storage industry. In fact, according to NJ Spotlight, the clean energy sector is adding jobs 53 percent faster than the rest of the economy. The largest jobs growth occurred in clean-vehicle manufacturing, which added nearly 50,000 jobs and outpaced the gas- and diesel-powered vehicle industry by more than 250 percent. New Jersey will have increased local jobs created by local solar, wind, energy storage, and grid related jobs. (277)

473. COMMENT: The ACC II rules will drive investment, support local job growth, and facilitate cost savings in New Jersey by accelerating ZEV adoption across the State. When combined with historic levels of Federal funding to build out charging infrastructure, New Jersey has a clear and unprecedented opportunity to attract both the public and private investment needed to create the high-wage, very naturally local jobs that will be supporting the new, modern

clean transportation infrastructure of the future. New Jersey's clean vehicle sector has already proven itself to be a strong economic driver. A recent report shows that jobs in New Jersey's clean vehicles sector grew by more than 15 percent in 2022 with 5,700 workers already employed. Also, with 85 percent of the world's car market committed to embracing 100 percent electrification within the next 20 years, the ACC II standards can help New Jersey build and maintain the market leadership critical to continued job growth in this sector. (85)

474. COMMENT: The ACC II rules should be implemented so that the State no longer relies on foreign oil and volatile oil prices, which is bad for business. (459)

475. COMMENT: Adopting ACC II is an essential step to mitigating the significant financial impacts to business from operational disruptions due to climate change. (685)

476. COMMENT: ZEVs, particularly BEVs, offer significant benefits for businesses and institutions. Transitioning to ZEVs can reduce operational costs through lower fuel and maintenance costs, avoid risks associated with the volatility of fossil fuel prices and supply, enhance company reputations, and improve workforce recruitment and retention. ACC II will help develop a more energy efficient economy, create new jobs, cut costs, and mitigate climate risk. (201)

477. COMMENT: Charging accessibility may be an issue but should be construed as an opportunity for high quality jobs, rather than as a barrier to EVs. Additionally, the State has programs to bring charging to everyone, including disadvantaged communities. (329)

478. COMMENT: The amount of time spent at an EV charging station is on average 20 minutes. This will impact commercial businesses, especially those that deliver, which base their business model on expeditious service. (92)

479. COMMENT: Banning gas-powered cars would impact thousands of businesses across the State, especially small businesses that depend on vehicles to sell goods and provide services. Likewise, this plan would put New Jersey's automotive-focused businesses, which contribute more than $2 billion in State and local taxes and employ more than 71,000 individuals, at a significant competitive disadvantage. (14)

480. COMMENT: Are gas station owners expected to put in multiple electric charging stations, and at whose expense? (611)

481. COMMENT: The rules will have a negative impact on businesses related to ICE vehicles and potentially put them out of business. Examples cited by commenters include local gas stations, small distributors, manufacturers, mechanics, and repair shops. (114, 115, 120, 137, 169, 266, 274, 483, 538, 588, 652, and 722)

482. COMMENT: The automotive sector, including dealerships, repair shops, and service providers, contributes significantly to the local economy. The ban on gas- and diesel-powered vehicles will lead to job losses and financial hardships for these businesses, ultimately impacting the State's overall economic stability. (577)

483. COMMENT: New Jersey has a substantial presence of traditional automobile manufacturers, dealerships, and related industries. A rapid transition to electric vehicles could disrupt these sectors, resulting in job losses and economic challenges. (485)

484. COMMENT: The rules will put traditional auto mechanics out of business creating more job losses and loss of tax revenue in the State. (115)

485. COMMENT: Repair facilities would have to be retrofitted to accommodate the repair of electric vehicles. There is also the expense of building an approved repair facility for electric

vehicles. (44)

486. COMMENT: The ban on internal combustion engines would greatly affect businesses. (670)

487. COMMENT: The ban on ICE vehicles will take away jobs from New Jersey citizens and affect even food prices because of higher food delivery costs. The Department must think about the long-term effects of the rules on the lower and working class, not just the upper middle class and the wealthy. (586)

488. COMMENT: The Department must consider the potential impact on jobs (including the Motor Vehicle Commission), dealerships, gas stations, mechanics, and/or insurance companies, and the resulting rise in unemployment (including losses for State union workers) and/or loss in property values and property tax revenue. (219, 294, 425, and 620)

489. COMMENT: Phasing out gasoline cars means a decrease in gas stations. This will impact people traveling to New Jersey from states where EVs are not required. It could be harder for them to find gas stations and, thus, deter tourism and reduce the State's income from tourism. (709)

490. COMMENT: EVs are not able to be worked on by small businesses. (308)

491. COMMENT: The rules will eliminate more jobs than created. (77)

492. COMMENT: The rules will result in a loss of jobs. (538)

493. COMMENT: The EV industry will eliminate jobs and in particular, union jobs for American workers. (423)

494. COMMENT: The rules will destroy American jobs. (397)

495. COMMENT: EVs and EV parts should be made in the U.S. and provide jobs to Americans. (623)

496. COMMENT: The lack of public charging locations in rural areas, which already lack public transportation and highway access, will unfairly burden these areas and businesses will suffer, as the rest of the State benefits from improvements. (212)

497. COMMENT: The Department must address the impact on surrounding car markets in states that allow ICE vehicles to be sold. (623)

498. COMMENT: The rules will weaken New Jersey's automotive sales industry and/or put New Jersey dealers out of business because people will go out-of-State to purchase automobiles. (131, 145, 179, 216, 219, 343, 383, and 563)

499. COMMENT: The rules will cause people to go out-of-State to purchase their next vehicle and will harm New Jersey businesses. Taking away consumer choice only makes the State more expensive. (295)

500. COMMENT: The rules will hurt car dealerships and the economic activity that they provide to the State. (7)

501. COMMENT: Strict regulations in New Jersey may drive consumers to purchase vehicles in neighboring states with less stringent requirements, potentially harming the local economy and dealerships. (312)

502. COMMENT: Businesses such as repair and service contractors, delivery services, and builders that will need to turn over their fleet will be negatively impacted by the increased costs of EVs. (319)

503. COMMENT: While the commenter appreciates the need for further environmental protections, the rules cannot be supported because of the heavy financial burden the rules will impose on New Jersey taxpayers and businesses. Increased costs for manufacturers will be passed on to the consumer through direct price increases. This also includes higher prices for businesses in purchasing company vehicles and fleets. In addition to the up-front cost of constructing electric vehicle charging stations at office spaces, contractors will have to determine how to have employees charge personal and company vehicles while on job sites. (360)

504. COMMENT: ACC II is a heavy-handed government approach that will have the negative effect of forcing manufacturers to send fewer vehicles to New Jersey, which will lead to consumers buying fewer new cars and even result in others holding onto their current gas-powered vehicles longer than customary. In actuality, this ill-conceived rulemaking will harm the automobile industry and the New Jersey economy that benefits from consumers buying new cars of their own choosing at New Jersey dealerships. (7)

505. COMMENT: As long as other states are not establishing strict EV rules, ACC II will negatively impact New Jersey's car dealers and both New Jersey and local economies. Residents can easily go to neighboring Pennsylvania to purchase the vehicle of their choice to circumvent the ACC II rules. This heavy-handed government approach is likely to backfire by forcing manufacturers to send fewer vehicles to New Jersey. That means higher demand, lower supply, and higher prices. If adopted, ACC II will also make consumers hesitate to replace their older vehicles. (9)

506. COMMENT: It is clear that gas-powered vehicles have an impact on the environment. If left unchecked, the carbon emissions from these vehicles will continue to cause irreparable

damage to the environment. An increasing number of automobiles being sold in New Jersey are EVs, which the automobile industry readily supplies. However, if the automobile industry cannot keep up with the demand that this rule will generate, it will have a harsh economic impact on the State. (8)

507. COMMENT: The Department incorrectly asserts that the rule applies to manufacturers, not to consumers and dealers. This is not how the new car market works. Dealers can only sell what manufacturers build, and consumers can only buy what retailers have to offer. Once the rules becomes effective, manufacturers will have to either deliver for sale into New Jersey the requisite number of EVs or face the financial penalties associated with non-compliance. As, demand for EVs is much lower than the mandate, manufacturers will be forced to lower the total number of vehicles offered for sale in New Jersey or buy credits from competing EV manufacturers. Either way, the rule will force new car prices to go up in New Jersey, which consumers do not want. Under ACC II, automakers will be forced to carefully control production and steer the product they allocate to ACC II state dealers as inventory. A mandate to increase the percentage of ZEVs or PHEVs sent to the State could result in fewer vehicles allocated to the New Jersey market to manage their top-line numerator and bottom-line denominator, and/or manufacturers limiting the number of base model vehicles manufactured and allocated to the New Jersey marketplace in order to maximize profit on the vehicles they can deliver for sale to ACC II states. In either case, New Jersey consumers lose because tighter inventories result in higher prices and/or less availability in the marketplace of base model vehicles. This is certain to make many new vehicle models unaffordable for many middle- and working-class families. (27)

508. COMMENT: There is the chance that dealer lots are full of EVs that nobody wants to buy. (499)

509. COMMENT: These rules pose very serious risks, given the challenges that manufacturers are facing in producing affordable electric vehicles. Ford Motor is reportedly losing almost $60,000 per electric vehicle that it sells (Olinga 2023), and even with companies willing to accept these massive losses on each vehicle sold, electric vehicles still cost consumers more than gasoline vehicles (Threewitt, 2023). If electric vehicles ever become the core product of car companies, as this proposal envisions, manufacturers may have to sharply raise prices to turn a profit. (139)

510. COMMENT: The U.S. liquid fuel industry is largely unionized. That is not the case for EV and battery manufacturing. Losing refining jobs in the U.S. means weakening the union base. These jobs will not be recovered by the EV industry, they will be sent overseas to China's EV and battery factories and to the rest of the world where liquid fuel demand continues to grow. Based on 2021 data, more than 80 percent of the refineries owned by the biggest U.S. refining companies are unionized. The big companies—which include some merchant refiners—operate more than 70 facilities. Just over 60 of those are unionized.

Yet again, California provides a cautionary tale here. The University of California, Berkeley, Labor Center, released a study on the impacts of Bay Area refinery closures on workers. The organization surveyed former refinery workers more than a year after the plant closures and found nearly a quarter of them were still without jobs. Additionally, the ones that did have jobs made significantly less money and believed they were worse off from a working conditions perspective compared to their former refinery jobs. As previously mentioned, New

Jersey workers have already felt the adverse impacts of refinery closures. The region cannot afford to lose more jobs, particularly in support of policies that will export American jobs and energy security overseas. (342)

511. COMMENT: Regulations that push the industry to adopt cleaner technologies are important to creating a strong domestic union manufacturing base. However, the carrots and sticks employed to propel industry innovation must be carefully tailored to preclude auto companies from shifting costs to consumers and workers, while companies shield shareholders and their massive profits. It is crucial that the State adopt EV and emissions policies that are ambitious, but feasible.

As the State considers its approach to transportation emissions and electric vehicle adoption, the Department is urged to prioritize consideration of the impact the rules would have on workers and their communities in its analysis. Overly aggressive or unachievable EV requirements can have negative impacts on workers and communities. Policy based on overly optimistic EV adoption projections can lead to regulatory costs that fall on auto workers. Any rulemaking must take into account the potential impact on the domestic manufacturing base or on the union manufacturing worker base.

The auto industry is reaching a key inflection point with the rise of electrification. Policies and investment decisions made in the next few years will re-shape the industry for decades. There is an opportunity to get this transition right for workers and the environment. That means avoiding the mistakes of the past, adopting a strategy that reverses decades of offshoring and declining unionization in the industry, and ensuring the domestic auto industry keeps pace with the latest clean technologies.

Unfortunately, initial trends in the EV transition are troubling. Despite planning to invest over a trillion dollars globally in electric vehicle production, major auto companies seek to use the transition to cleaner vehicles to circumvent and roll back hard-fought labor standards for workers, including by shuttering and offshoring manufacturing facilities, cutting wages, and fighting attempts to include new facilities under existing collective bargaining agreements. Union workers are proud to be building the vehicles of the future, including hybrids, PHEVs, BEVs, autonomous vehicles, and increasingly efficient gasoline vehicles. Policies promoting cleaner vehicles must create economic security for auto workers in the industry, including safeguards that strengthen the domestic manufacturing supply chain, and require the EV transition to provide at least the same level of investment and quality jobs as the current ICE footprint. Otherwise, society will fail to build the public confidence necessary to sustain policies for the EV transition and the continued competitive position of the U.S. auto industry. (676)

RESPONSE TO COMMENTS 466 THROUGH 511: The Department acknowledged the potential negative economic impacts on New Jersey businesses and jobs in the notice of proposal. See 55 N.J.R. at 1783-1785, 1788. The Department explained that the ACC II program will advance a paradigm shift for this vehicle sector that will have indirect economic impacts on various areas of the economy, including dealerships, automotive repair, retail gasoline stations, engine component suppliers, ZEV infrastructure businesses, and the green job economy. 55 N.J.R. at 1783, 1788. Although jobs may be lost during this transition, job opportunities will also be created. As the Department explained, the New Jersey Green Council on the Green Economy

identified areas of green job growth in the State, including the transition to alternative fuel vehicles. 55 N.J.R. at 1788.

The Department cannot predict how the adoption of ACC II will impact the marketing strategy or distribution of vehicles by each manufacturer. Rather, the Department expects the rules to drive technology and increase choices for consumers, as manufacturers will produce greater number and variety of compliant vehicles for sale and lease in New Jersey, California, and other states that have adopted or will adopt the ACC II rules. As explained in the notice of proposal summary, "[m]anufacturers have stated that 'the future is electric' and set their own targets for ZEV sales." 55 N.J.R. at 1782. As such, although dealerships will have to adapt to increasing percentages of ZEVs to be sold or leased, the Department does not expect dealerships to suffer losses from vehicle sales. Consumers looking to purchase a new vehicle will still visit dealerships to find vehicles, including, at least until 2035, new ICE vehicles that have been certified by CARB.

With regard to the concern that consumers will purchase ICE vehicles in another state, the Department notes that the annual ZEV requirement for new light-duty vehicles (passenger cars, light-duty trucks, and medium-duty vehicles) is applicable to manufacturers, not consumers. Nevertheless, as the Department explained in the notice of proposal, and as required at N.J.A.C. 7:27-29A.3(a), "no person who is a resident of this State, or who operates an established place of business within this State, shall sell, lease, import, deliver, purchase, acquire, register, receive, or otherwise transfer in this State, or offer for sale, lese, or rental in this State, a new 2027 or subsequent model-year passenger car, light-duty truck, or medium-duty vehicle unless the vehicle has been certified by CARB." Therefore, all new light-duty vehicles registered

in New Jersey are required to be CARB-certified regardless of where they are purchased. This is a pre-existing requirement that is not changed by this adoption. See N.J.A.C. 7:27-29.3(a); 55 N.J.R. at 1777-78. All the states bordering New Jersey, including Pennsylvania, New York, Delaware, and Maryland, also currently require CARB-certified vehicles be sold in their states. Of those neighboring states, New York and Maryland have also adopted the ACC II program and will require increasing sales of electric vehicles. Thus, residents will not be able to register in the State a non-compliant vehicle (that is, a non-CARB-certified new vehicle) purchased out-of-State, unless one of the exemptions applies.

Although the ACC II rules will phase out the sale of new ICE vehicles, the rules do not apply to used vehicles or require any vehicle owner or lessee to give up or replace their ICE vehicle with a ZEV. Therefore, the Department expects there will be a continued demand for gas stations and services for conventional vehicles after 2035, when the annual new ZEV sales requirement peaks at 100 percent. As the new vehicle transition occurs, the job sector should also transition, reducing the adverse impacts on individuals and businesses. Also, as explained in the Response to Comments 613 through 632, the Department understands the importance of domestic manufacturing and jobs and will support efforts underway to encourage and increase domestic manufacturing of EV battery minerals and ZEVs generally.

See the Response to Comments 553 through 607 regarding the impact of emission control standards on innovation and production and the Response to Comments 289 through 419 on the total cost of ownership of an EV compared with an ICE vehicle.

With regard to the impact on businesses that provide delivery of goods and services, the Department is aware that most businesses that operate vehicle fleets prefer to manage their own

EV charging at central locations rather than relying on public fast charging. Fleet operators can more effectively plan usage and timing of charging EVs to best fit their use cases. For example, delivery trucks used throughout the day can be slowly charged overnight. Fleets that offer 24-hour services can rotate vehicles in and out of service while they are being fast charged at a fleet-owned facility. As noted above, this will be a paradigm shift for the industry and the economy. However, commercial vehicle fleet managers are already familiar with careful planning of vehicle operations and can adjust accordingly. Please see the Response to Comments 723 and 724 for discussion of the weight classes to which the ACC II program applies.

With regard to the impact on gas stations, as stated in the notice of proposal, the transition to ZEVs will occur over the next couple of decades; thus, retail businesses and employees will have time to respond to changes in the labor market. For instance, it is possible that new business models will develop as a result of public charging. Gas stations may choose to install EV charging stations, and attendants may be employed to assist with charging, and/or retail spending may increase as drivers stop to charge their electric vehicles.

State Revenue

512. COMMENT: While electrification is generally a good idea, there must be a sustainable funding source for State roads, bridges, and highways. The State must modernize the Transportation Trust Fund to account the impact of electrification on the gasoline tax. (549)

513. COMMENT: The Department should not adopt the rules because it has not addressed the impact on the gas tax and/or Transportation Trust Fund. (47, 92, 114, 128, 170, 219, 301, 322, 340, 383, 389, 401, 425, 616, and 627)

514. COMMENT: The Department should analyze the impact of the rules on the Department of Transportation, since most funding for the Transportation Trust Fund comes from taxes on gasoline and diesel motor fuel. It should also consider how the State will pay for basic road maintenance if there is a dramatic drop in sales of these fuels. Most other states have assessed an annual registration fee for EVs. New Jersey should decide whether to follow their lead and effectively have one department subsidize EVs while another department charges them an extra tax. Also, it should evaluate whether road construction costs should just be borne by the State's General Fund, and if so, where the nearly $2 billion a year will come from. New Jersey should consider the duration and amount of subsidies for new EV purchases. New EVs are exempt from the sales tax, but ICE vehicles are not. If the transition called for by this regulation works, a significant portion of the State's sales tax revenues will disappear in a few years. New Jersey should evaluate the impact of that lost revenue and determine whether the sales tax will be added back on EVs, thereby making them even more unaffordable, or raise taxes on other items to make up the shortfall. (70)

515. COMMENT: Electric vehicle mandates should be on hold until there is a plan in place to fund New Jersey's highway infrastructure projects and repairs without putting the full cost on individuals who choose to purchase pre-owned vehicles due to the cost restrictions of purchasing a new electric vehicle. By New Jersey adopting California's ACC II, the assessment done by CARB did not take into account New Jersey's gas tax or the Petroleum Products Gross Receipts (PPGR) tax. Within N.J.A.C. 7:27-29A's Indirect Consumer Impacts, the stated result of this oversight is an increase of the cost of ownership for internal combustion engine vehicles. It is unfair to put the cost of roadway maintenance and highway infrastructure on those who are not

able to purchase a new electric vehicle to meet the mandate. The mandate should be held off until a successful plan comes to fruition to replace New Jersey's gas tax and continue to fairly fund highway infrastructure projects. (360)

516. COMMENT: The rulemaking is conspicuously silent on the impacts to the Transportation Trust Fund. Funding of transportation projects through the Transportation Trust Fund will decrease pursuant to the goals sought by ACC II. The societal and economic implications of the reduction of gas-tax dollars collected because of the decreased use of gasoline stations is not analyzed as an additional aspect of adopting ACC II. (27)

517. COMMENT: The ACC II rules completely miss the mark by not considering New Jersey's gas tax or the PPGR tax, the primary method of funding road and bridge repair and maintenance. The Department's negligence in ignoring this cannot be overstated. Quite simply, any mandates or rule adoptions should be held off until a successful plan comes to fruition to replace New Jersey's gas tax and continue to fairly fund highway infrastructure projects. The regressive tax and unfunded mandates facing New Jersey's most vulnerable residents, particularly those in overburdened communities, to foot the bill for road repair while EVs continue to get a free ride is alone reason to pause this entire rulemaking. (399)

518. COMMENT: The notice of proposal states that "[t]he Department does not attempt to calculate the exact amount of revenue lost from vehicle sales taxes, the motor fuels tax, and the petroleum products gross receipts tax because intervening legislative, regulatory, and policy changes any time in the next two decades could radically alter any projection of revenue, and such factors are outside of the Department's control and foresight." However, the Department should in fact analyze the impact on tax revenue generated from changes to gasoline

consumption and switching to increased consumption of electricity. Liquid transportation fuels are taxed at both the Federal and State level to fund the construction and maintenance of bridges, roads, highways, and other transportation initiatives. The Federal tax on gasoline is 18.4 cents per gallon, while New Jersey adds 10.5 cents per gallon in State tax as of 2023.

The rulemaking acknowledges that an additional 6.625 percent per vehicle tax revenue will be lost, as ZEVs are exempt from this sales tax; as well as impacts to the State's PPGR tax, which will be impacted by decreased demand for gasoline and diesel fuel (according to the statutory formula, which must be adjusted annually to meet the State's Highway Fuels Revenue Target, this would cause an increase in the price per gallon paid by consumers). The revenue collections in FY 2020 from these three taxes (motor fuels sales, vehicle sales, PPGR) in New Jersey were $440 million, $621.6 million, and $1.38 billion dollars, respectively. (251)

519. COMMENT: The Department must consider how the State will replace approximately $1.1 billion from Federal fuel tax revenue and over $461 million in motor vehicle fuels tax revenue that would be lost if ICE bans go into effect. If the State utilizes an electricity consumption tax to replace fuel tax revenue, that will impact low-income families. (103)

520. COMMENT: Meeting the two million EV mandate by 2035 will cost the State $70 billion, or $35,000 per EV. This amount reflects the estimated direct costs, excluding all Federal subsidies, which will be recovered, in part, from New Jersey taxpayers. The costs include direct subsidies offered by the State pursuant to S2252; foregone sales tax collections, because ZEVs are exempt from the State sales tax; foregone State gasoline tax collections; subsidies for public and private charging systems; and local distribution system upgrade costs. The additional Federal

subsidies, primarily the Federal tax credit of $7,500 and foregone Federal gasoline taxes, add an additional $16.6 billion to the total subsidy cost, for an overall total of $87 billion.

Based on the $70 billion total estimated State cost to reach the two million EV mandate by 2035 and the 28 million metric ton estimated cumulative reduction in CO_2 emissions, the average cost per ton of CO_2 reduced is approximately $2,500 per metric ton. This is 20 times greater than the social cost of carbon (SCC), which as shown in Table ES-1 of the notice of proposal is only $116.00 per metric ton (2020 dollars) in 2050 when using the lowest assumed discount rate. Including the Federal EV tax credit and foregone gasoline tax collections, the cost per ton of CO_2 reduced increases to over $3,100 per metric ton. As such, the State's EV mandate and the ACC II rules clearly fail a cost-benefit test for carbon reductions. (387)

521. COMMENT: The State raised the gas tax to cover loan payments, which puts a burden on the people. The State must ensure that EVs pay their part. (406)

522. COMMENT: The rules do not address if vehicle registration cost will rise to pay for the maintenance highway infrastructure. Other states have done this, with a surcharge on EVs, to maintain roads, but the rules are silent on this. (499)

523. COMMENT: The Department declines to even estimate the costs that will be incurred from motor fuels and petroleum products gross receipt taxes revenues losses by blaming intervening legislative, regulatory, and policy changes that could radically alter any projection. The same thing can be said for infrastructure grants and incentive programs that the Department proudly touts. One cannot have it both ways. Either the grants/incentives need to be excluded or the lost revenue needs to be included. Not to be consistent makes a mockery of the economic impact analysis.

These receipts are over $2 billion a year. The programs these taxes fund will still need funding. This must be included in any accurate financial analysis. (102)

524. COMMENT: While the notice of proposal notes that the transition to all-electric vehicles will reduce the revenue derived from the gasoline tax, the rulemaking fails to provide any explanation for how that revenue will be replaced. This failure could place the current road and bridge construction program, which depends on the gasoline tax, in jeopardy. (128)

525. COMMENT: The Department has not explained how the State intends to increase taxes to offset the lost gas tax revenue. (219)

526. COMMENT: EVs do not pay road tax, only gas vehicles do. This needs to be fixed first. (305)

527. COMMENT: The State should start taxing per mile for EVs currently on the road that do not pay additional tax imbedded in gasoline prices. (204 and 593)

528. COMMENT: To replace the revenue lost from gas taxes, the State will likely force people to pay by mile, which will be a privacy nightmare and a violation of the Fourth Amendment if government knows where people are traveling. (170)

529. COMMENT: The rules would force many to purchase ICE vehicles in neighboring states, which could hurt New Jersey through loss of the sales tax. (51)

530. COMMENT: The Department must consider how the loss of ICE vehicle sales in New Jersey will affect the State's economy. For example, the State will lose sales tax revenue, which will go to other states. (181)

531. COMMENT: Mandating EVs will result in people leaving the State, reducing property values and tax revenue. (115)

RESPONSE TO COMMENTS 512 THROUGH 531: The Department acknowledges that revenues from the Motor Fuels Tax and the PPGR tax may decline as ZEV sales increase. See 55 N.J.R. at 1784. As the Department explained in the notice of proposal, intervening legislative, regulatory, and policy changes in the next two decades could greatly alter any revenue production, and the Department neither controls nor can predict such changes. *Id*. To the extent that the comments suggest that the Department should make changes to the Transportation Trust Fund, those comments are beyond the scope of the Department's authority and this rulemaking.

Used Vehicle Market and ICE Vehicles

532. COMMENT: This regulation would not directly affect used vehicle sales, but would help to increase the number of used EVs available on the secondary market as the new vehicle market transitions to EVs, providing affordable clean vehicles to the majority of drivers in the State. (291)

533. COMMENT: A key part of the ACC II program is that the State needs to accelerate the sale of new EVs to create a viable used car market. The majority of Americans and New Jerseyans buy their cars in the used car market. Selling more new EVs provides the opportunity for people to get behind the wheel of an EV, whether it is new or whether it is used. (493)

534. COMMENT: By allowing the continued sale of used ICE vehicles, consumers will still be able to choose them and low-income households will still have access to affordable ICE vehicles. (376)

535. COMMENT: Used ICE vehicles are dirtier than new ones, while EVs get cleaner as they get older because cleaner energy resources are deployed. (329)

536. COMMENT: The Department should explain how steering consumers into the higher priced used car market, or purchasing out of State, helps consumers in the State. Every new car dealer sells used cars and many sell more used cars than new cars. Consumers do not want to pay higher prices for used cars. The restriction on the new car market and resulting increased pricing will redirect sales towards the used car market. The increased demand for used cars will increase those prices too. Faced with either unpleasant choice or higher prices, consumers may revert to keeping their older vehicles, resulting in other safety and emissions production issues not contemplated by ACC II. Today, the average age of a motor vehicle on the road in New Jersey is 12.2 years. But if consumer choice becomes limited pursuant to the ACC II rule and new cars and trucks become less affordable, then efforts to improve EV sales will be frustrated because consumers will hold onto vehicles longer. (27)

537. COMMENT: The rule will have a downward impact on the used car market. With fewer new ICE cars available, and with people holding on to their ICE cars longer, the used car market will see spikes in prices. It is a simple supply and demand response. People with less income, who could only afford a used car, may now need to buy an even older car, or be priced out of the market entirely. Older cars have more repair problems thus harming this population even further. The used car market is not an acceptable alternative for those who can no longer afford a new car because of the rules. The Department should have done an analysis on the used car market and how it will impact LMI, disadvantaged communities, seniors, the young, and the middle class. (113)

538. COMMENT: The rules will dramatically increase the price of used vehicles, so it is a no-win scenario for consumers. (518 and 663)

539. COMMENT: Many households rely on purchasing used cars and a shift to EVs and hybrid vehicles could limit the availability of affordable options in the used car market. (485)

540. COMMENT: According to a recent survey, about half of Americans say they are not interested in buying electric cars. Motorists who are interested in an EV and cannot afford one or are ambivalent may assume they will have the choice to buy a new ICE vehicle. Automakers will be anxious to sell their line of EVs and further minimize their selection of ICE vehicles, impacting supply. If EVs do not sell and ICE vehicle supply becomes limited, as the State experienced during the pandemic, selection and availability problems will ensue along with higher acquisition costs due to this State government mandate. (118)

541. COMMENT: The Department should not adopt the rules because people will only keep their ICE vehicles longer and/or buy ICE vehicles in another state. (7, 36, 51, 136, 188, 122, 196, 278, 281, 322, 518, 543, 588, 598, 546, 617, 639, 716, 639, and 518)

542. COMMENT: No one will ever sell their existing ICE vehicle for no other reason than an insurance policy. (519)

543. COMMENT: The ACC II rules will require that beginning in calendar year 2025, when model year 2026 vehicles start to be sold, one-third of new cars sold in New Jersey must be an EV. This mandate will limit the supply and drive up the costs of all ICE vehicles. (168)

544. COMMENT: The rules will cause ICE vehicle costs to increase because they will be in more demand and lower supply. Residents are already struggling financially and cannot afford more bad policies that limit options or impose penalties for keeping a less expensive item. (398)

545. COMMENT: The rules will cause an increase in the price of ICE vehicles, which might be the Department's desired outcome but for those who have no desire of purchasing an EV, the rules will be more harm than good. (94)

546. COMMENT: Banning gas cars will cause the price of ICE vehicles to skyrocket, hurting the poor, teenagers, and young people just starting out. It will also gradually make it harder to get parts for classic ICE vehicles. (712)

547. COMMENT: For those who cannot afford an EV, the rules will make it more difficult for them to obtain the car parts for their ICE vehicles because manufacturers will eventually stop making them. (623)

548. COMMENT: The rules will cause the cost of diesel fuel to increase, which will make building anything in the State unaffordable and have other ripple effects, such as impacts on pumping stations and treatment plans that have backup generators that run on diesel. (170)

RESPONSE TO COMMENTS 532 THROUGH 548: The Department acknowledges that with any change in emission standards, there is the potential for some consumers to decide to purchase used, rather than new vehicles, or delay the purchase of new vehicles. However, the Department cannot objectively predict whether or how many people may keep their ICE vehicles longer. The mobile source emissions model used for estimating environmental benefits of the ACC II program (U.S. EPA MOVES) predicts vehicle ownership over time based on historical trends. Should the New Jersey vehicle population become older, if consumers decide to keep ICE vehicles for longer than predicted, there would be some impact on emission reductions. However, there is no practical way to predict and model this behavioral change ahead of an actual documented trend.

However, as CARB noted, the Federal emissions standards and the CARB LEV III emission standards (adopted by New Jersey) have been harmonized "and may continue to be harmonized if that trend continues regarding CARB's LEV IV standards." CARB FSOR Appendix A, at 15-16. As such, even if there is a greater proportion of used vehicles in the State or drivers keep their ICE vehicles longer, any decrease in emissions reductions benefit is expected to be slight. Further as CARB noted, "the used vehicle market is not necessarily a localized market that depends on vehicles supplied solely from the State." FSOR Appendix A, at 16. The used vehicle market is an interstate market, with vehicles "sold through various channels, including auctions that are open to parties from any state…." *Ibid*. This "helps to equilibrate used vehicle prices across the country." *Ibid*.

Domestic Manufacturing

549. COMMENT: For the foreseeable future, the cleanest, most reliable, and most affordable transportation fuels will continue to come from petroleum-based gasoline and diesel, which is the most cost-effective form of energy. Managing future emissions will necessitate continuing to use petroleum-based fuels more efficiently; particularly because affordable energy is essential to continuing economic growth and prosperity. Domestic refiners are making the cleanest transportation fuels in the world at costs affordable for Americans across the economic spectrum. Americans also continue to use these fuels more efficiently, in a manner that ensures continued health while advancing potential for upward economic mobility.

The State's proposed *de facto* ban on ICE vehicles risks premature refinery capacity reductions. The rules put at long-term risk the State's reliable fuel supply and threatens union

and non-union energy manufacturing jobs in the State, with the effects being borne the most by lower-income residents. The State has been steadily losing refining capacity, with almost 300,000 barrels per day lost with the closures of three refineries between 2010 and 2013, making the region even more dependent on fuel imports from countries with lower environmental and labor standards. A decade later, New Jersey cannot afford to risk further loss of refining capacity. The adoption of ACC II unfortunately could lead to such a result as it would be a clear signal to the refiners and their investors that their businesses – and the jobs they create – are not valued or wanted. The refining industry has only recently recovered from COVID-related demand destruction that significantly impaired the sector's financial results. Like any other business, refineries need to know they will have a decent prospect of a return on their maintenance and capital project investments. Refineries plan out a timeline for major maintenance and capital projects that require hundreds of millions of dollars of investment over the span of several years.

Given the timeframes and amount of money required for refinery maintenance and capital projects, overly aggressive, aspirational regulations that essentially look to eliminate liquid transportation fuels can impact near term refining business decisions. When faced with negative signals like adoption of the ACC II regulation, investors would often rather see refiners forgo projects and, in some cases, prematurely shut down assets rather than take the risk that aspirational mandates, coupled with adverse market cycles, may prevent a return on their massive expenditures. Such a scenario is exactly what happened in California, which has resulted in unreliable and extremely costly fuel imports to meet demand that exceeds the state's

fuel manufacturing capabilities, sending consumer prices skyrocketing and leaving them significantly higher than many other parts of the nation.

New Jersey – and the East Coast at large – cannot afford to lose any more refining capacity. The region that has lost 70 percent of its indigenous refining capacity since 2009. As a result, the region now relies on foreign fuel imports to meet nearly 20 percent of its needs and Gulf Coast refiners for over half of regional fuel demand, primarily through the Colonial Pipeline. The remaining East Coast refining capacity can only supply approximately 15 percent of the region's fuel needs. Gas lines that materialized in the aftermath of the Colonial Pipeline cyber-attack and recent concerns over potential winter heating oil shortages already provide dire warnings of the consequences of lost refining capacity. These warnings should be particularly concerning because the State is incapable of realistically achieving 100 percent light duty electric vehicle sales by 2035. The rules would continue the trend of making the region more reliant on fuel imports from countries with lower environmental and labor standards. (342)

550. COMMENT: The ACC II program would force reliance on BEVs, which will place unnecessary risks on and harm energy and economic security. The U.S. is now a net exporter of crude oil and petroleum products, a position of energy security not seen since 1949. China has a dominant position in the global supply chain for critical mineral extraction, processing, and battery production. States adopting ACC II are effectively trading away our hard-earned energy security and leaving our economy more dependent on and financially beholden to countries that control minerals required to manufacture EV batteries. (167)

551. COMMENT: The rules will destroy an American industry and transfer energy sources and industrial market overseas. (583)

552. COMMENT: All this will do is enrich China, destroy Africa, and make everyone in America poorer and more miserable. Electric everything will not work. Oil is the power of the world. (391)

RESPONSE TO COMMENTS 549, 550, 551, AND 552: The Department disagrees that the ACC II rules are a *de facto* ban on ICE vehicles. As explained in the Response to Comments 16 through 44, the ZEV portion of the ACC II rules require manufacturers to produce and deliver for sale in New Jersey an increasing number of new ZEVs as part of their light-duty vehicle fleets. Manufacturers may partially meet their obligations with PHEVs, which have an internal combustion engine. The ACC II rules include certain exemptions at N.J.A.C. 7:27-29A-3. Moreover, the ACC II rules do not apply to used vehicles. The Department projects that roughly 40 percent of the light-duty vehicles in New Jersey will be electric by 2035. That percentage is not expected to approach 100 percent until 2050 or beyond. The Department cannot predict how the overall markets for oil-based products, which depends on many factors, such as global economic growth, political stability in oil-producing regions, and global exchange rates, will change over the coming decades, and what impact those changes will have on New Jersey's refineries and their employees. It is worth noting that the production of gasoline only makes up a portion of New Jersey's refining capacity. According to the EIA, New Jersey's two refineries "produce a wide range of refined petroleum products, including motor gasoline, distillate fuel oil, aviation jet fuel, and petrochemical feedstocks." Other products, such as petrochemicals, would not be impacted by this rulemaking.

Consumer Choice

553. COMMENT: While the availability of commercial ZEVs in the U.S. market has improved, major fleet operators still face difficulties in procuring the ZEVs needed -- in terms of both unit volume and model configuration -- to meet their ambitious climate and sustainability goals in a timely manner. Technology-driving policies like ACC II and the Advanced Clean Trucks (ACT) program help to close the gap between supply and demand for zero-emission commercial vehicles. Additionally, by establishing clear regulatory standards and deadlines, companies are able to make better informed fleet procurement plans, which in turn create a predictable and supportive business environment that encourages investment and spurs job growth. (230 and 377)

554. COMMENT: Market-enabling policies like the Advanced Clean Trucks (ACT) program and ACC II rules will rapidly unlock the long-term savings, climate, and clean air benefits of fleet electrification, while spurring the much-needed widespread build-out of charging infrastructure to meet increased ZEV deployment. The more states that adopt ACT and ACC II, the greater the benefits of the rules, effectively lowering costs and creating a more stable, coordinated, and self-sustaining market for ZEVs. (230 and 377)

555. COMMENT: New Jersey, by electing not to join the ACC II program in full, would have detrimental impacts on consumer choice in the State. Failure to adopt ACC II would result in fewer clean vehicle choices available for New Jerseyans. But if the State adopts the standards, New Jerseyans will have access to the latest zero-emission vehicle makes and models available. To ensure that there is an equitable transition and distribution of these vehicles and drivers reap the health and economic benefits that they provide, an increased number of ZEVs in New

Jersey's new vehicle market will help to increase the number of used ZEVs in the market over time. As ACC II affects only the new vehicle market, the sooner that New Jersey implements ACC II and these new ZEVs are on New Jersey's roads, the sooner that these clean vehicles will enter the used vehicle market, providing opportunities for all New Jerseyans to purchase ZEVs. (292)

556. COMMENT: The transition to EVs is occurring. Automakers have already invested over $210 billion in investments here in the United States to support this transition, while many major automakers have also announced increased EV model availability and in some cases complete phaseouts of gasoline vehicles within the next 15 years. ACC II helps to accelerate this transition and guarantee that New Jerseyans will be able to purchase the latest clean vehicles they want here in New Jersey. Failure to adopt these regulations means that New Jerseyans would miss out on the air quality, public health, and economic benefits. (291)

557. COMMENT: The adoption of the ACC II regulation will increase the number of ZEVs or hybrid vehicles delivered to New Jersey dealerships. (680)

558. COMMENT: Adopting the ACC II program will increase consumer choice for New Jersey residents and drive the ZEV market. (535)

559. COMMENT: The EV market is established and growing nationally and the adoption of the ACC II rules will provide certainty to the auto market by strongly signaling that New Jersey residents want more EV options. EVs may become more widely available in our neighboring states that adopt ACC II more quickly, if New Jersey does not adopt the ACC II rules this year. This may force consumers interested in purchasing an EV as their next vehicle to look out of State and prevent some consumers from being able to take advantage of tax credits and rebates

available in State. Additionally, the acceleration of the new EV market will help create an accelerated used EV market, making EVs much more affordable. (461)

560. COMMENT: The EV market is established and growing nationally and adopting ACC II in New Jersey will only strengthen that market. (462)

561. COMMENT: ACC II is a critical component of a larger strategy to address the market failure of climate change. By establishing specific thresholds and deadlines, ACC II provides a degree of market certainty that private investment requires and will help lessen the monopoly power of fossil fuel interest. The program design is aligned with decisions by major car companies to transition from ICE vehicles to EVs within the same timeframe. (376)

562. COMMENT: The ACC II program will gradually move the market towards safer, cleaner, and cost-saving technology, such as EVs and plug-in hybrids. (18)

563. COMMENT: The rules are supported because they will make more EVs available. (71)

564. COMMENT: The ACC II rules pertain to the automotive sector, where safety, efficiency, and emission standards are nothing new and certainly nothing bad. Examples, such as seatbelts, airbags, catalytic converters, no lead in gasoline, were all criticized at the time as being mandates and market interference, but the end result has been a cleaner, safer, and higher quality vehicle fleet available to consumers, resulting in substantial benefits. The ACC II program is categorically the same as these examples to improve the vehicles everyone drives. There is also a choice of whether to continue polluting and affecting the climate or living in a future with less NO_x and PM pollution and less smog, as well as responsibly addressing the climate crisis. (213)

565. COMMENT: There are costs and benefits of transition, and it is important to draw that circle broadly and widely and consider all benefits that are typically not reflected in current

markets. There are times and places for good regulations. This is the time and place for this regulation. New Jersey must signal to the auto market that the State is committed to the EV transition. Adopting ACC II will ensure that a variety of new EVs is available to New Jersey customers. Automakers are more likely to send EVs to states that have adopted the ACC II regulation. New Jersey is not alone. There are other states that have adopted and are on track to adopt this policy that make up a huge percentage of the car market in the United States. It is important to understand that pursuant to this rulemaking, the used ICE vehicle car market would continue for some time. Most of the cars that are purchased in the State of New Jersey are used cars. (234)

566. COMMENT: Automakers are ramping up the number of EV models and pricing options. Without the adoption of ACC II in New Jersey, electric cars will go to other neighboring ACC II states in the region and other countries with EV sales mandates. This will reduce New Jersey dealership options, EV availability, and sales. (265)

567. COMMENT: Each year since 2014, about 1.35 times as many new EVs were sold as the year before. If that continues, by 2032, all new vehicles sold in New Jersey would be EVs. The major vehicle manufacturers have announced that the majority of cars they plan to produce will be ZEVs by 2035. The market will have more choice driven by the auto manufacturers themselves. (277)

568. COMMENT: Adopting ACC II will produce good-paying American jobs, reduce consumer costs, improve public health, reduce carbon emissions, and send a strong signal across the EV supply chain that robust demand for electric automotive technologies will continue, laying the groundwork for further industry expansion. The full EV supply chain is preparing to support

increased transportation electrification and New Jersey's adoption of ACC II will help ensure the regulatory certainty needed to protect today's investments that will put the transportation sector on a path to a zero-emission future. (79)

569. COMMENT: The ACC II rules would provide certainty while requiring manufacturers to increase the production of ZEVs with the ultimate goal of 100 percent ZEVs by 2035. (402)

570. COMMENT: Having the certainty that the rules are coming will ensure that New Jersey does not lose out on EVs, especially with the early compliance values. Further, the pace of EV innovation, cost reductions, and investment, coupled with the public health and welfare imperatives to address criteria air pollution in the accelerating impacts of climate change support New Jersey's adoption of ACC II. (339)

571. COMMENT: The rules are ambitious but achievable. ACC II was developed by policymakers after extensive engagement with stakeholders, including industry, and a robust technical feasibility and cost/benefit analysis. The rules will offer benefits of consumer assurance measures, such as minimum battery warranties and durability standards, and long-term market certainty. Moreover, the ACC II standards provide much needed certainty to guide long-term investments for all market stakeholders and participants. Unambiguous regulatory requirements for ZEV sales are key to orient capital investment in the vehicle industry and support long-range infrastructure planning by charging providers, utilities, and grid operators. (671)

572. COMMENT: Consumer protection starts with accountability and enforceability. Automakers need to be held accountable for the quality of the vehicles sent to the market. This is echoed by ACC II. Manufacturers will have to produce a range of ZEV types to meet various consumer needs, including affordability, and demonstrate quality that is comparable to internal

combustion engines or vehicles. The goal of 100 percent of new light-duty EV sales by 2035 is a pivotal decision for the State that deserves additional support to fuel the transition. (329)

573. COMMENT: The supposition that the market should dictate decision ignores the lives lost and the illness caused by fossil fuel pollution. ACC II ensures a managed transition to the inevitable reality and acknowledges that the health of New Jerseyans are at stake. (127)

574. COMMENT: Not adopting ACC II will put New Jersey at a competitive disadvantage compared to other states that have adopted ACC II and will be a disserve to all New Jerseyans and the public interest. (376)

575. COMMENT: The Department should not adopt the rules because consumers should be allowed to choose whether to buy electric. Some commenters cite specific concerns including the loss of competition in a free market, the perceived advantage to particular manufacturers (opposition to a monopoly), the perceived advantage to a particular technology (and exclusion of other reduced and/or zero-emission technologies), collateral impacts on related industries and/or jobs, and/or the desire to allow EVs to phase-in based upon consumer interest and affordability. (12, 13, 14, 15, 22, 23, 28, 32, 33, 35, 39, 43, 50, 51, 55, 61, 63, 66, 76, 77, 81, 83, 84, 97, 98, 99, 101, 110, 111, 144, 115, 121, 123, 132, 135, 136, 142, 143, 152, 163, 167, 171, 176, 177, 178, 180, 182, 184, 186, 187, 193, 195, 205, 214, 223, 226, 233, 235, 236, 246, 252, 253, 257, 261,267, 268, 269, 273, 282, 285, 295, 296, 301, 318, 322, 324, 332, 333, 336, 343, 361, 363, 369, 370, 374, 385, 386, 390, 392, 393, 396, 401, 406, 408, 413, 418, 425, 426, 427, 431, 440, 441, 442, 443, 444, 447, 499, 454, 455, 456, 457, 460, 464, 471, 475, 478, 483, 502, 504, 508, 509, 513, 516, 517, 519, 524, 542, 543, 544, 552, 561, 568, 570, 575, 576, 580, 581, 582, 584, 589, 592, 594, 595, 596, 597, 599, 601, 602, 603, 605, 609, 613, 616, 617, 618, 622, 624, 625,

627, 639, 641, 646, 654, 658, 661, 662, 672, 674, 675, 682, 697, 698, 693, 694, 699, 704, 710, 712, 714, 715, 716, 722, 723, 725, 726, and 728)

576. COMMENT: Although a clean environment is supported, the Department must look at every factor, including consumer choice, impact on automotive enthusiasts, and the need for competition for competitive prices and innovation as opposed to the potential monopoly that could result from only EVs. (620)

577. COMMENT: True progress will come from private sector innovation in the future, not idealistic government mandates that imperil our prosperity. (528)

578. COMMENT: The timeline is way too much and too fast. People are warming to EVs on their own and over time, more and more vehicles will become EVs; the car manufacturers are all moving in that direction. The government needs to allow the market to develop on its own. (699)

579. COMMENT: If EVs were so good, the Department would not need a rule to force people to buy them. (441)

580. COMMENT: Any transition should happen through a self-selected and incentive-based approach. Mandates are not the way to reduce vehicle emissions and/or are counterproductive. (131 and 500)

581. COMMENT: By not including construction vehicles, buses, fire trucks, ambulances, dump trucks, plows, small airplanes, as examples, the rules impact only, and, therefore, discriminate against, ordinary citizens who should be left alone. (425)

582. COMMENT: Banning ICE vehicles will punish the most vulnerable and economically challenged members of society. When the government interferes with the market and

disadvantages proven and less expensive legacy technologies, the financial burden is passed to the consumer through inflated new-product costs, infrastructure costs (for example, chargers), and decreased State revenue because of incentive and rebate giveaways. (163)

583. COMMENT: The rules would remove the right of consumers and businesses to make a choice in their purchases. Incremental change is needed, not a rapid change in the form of this forced mandate on the public that will have serious negative social and economic consequences. (319)

584. COMMENT: Consumers demand choice. The market responds to consumer demand. ACC II will simply negate consumer choice by administrative fiat. Realistically, New Jersey will attain a 100 percent EV sales market when consumers elect to buy zero-emission vehicles, not when the government mandates them. New Jersey and the Federal government already offer interested consumers considerable financial incentives to entice them to purchase an electric vehicle. Those incentives help to reduce the purchase price, by providing cash on the hood or providing a tax rebate (as in the case with the Federal incentive program). Despite those incentives, EVs still only account for less than 10 percent of all new vehicle sales in New Jersey. ACC II is wrong for New Jersey because it fails to recognize marketplace realities. EVs are clearly not for everyone, even with all the available incentives. New Jersey already faces an affordability crisis. Removing the freedom of consumer choice and market competition will only drive-up costs and price out many working families and younger workers from the car market. (7)

585. COMMENT: The rules will destroy transportation independence for working class families. (266)

586. COMMENT: Electrification must be accomplished for the good of the planet. However, the State cannot do it through forced adoption and arbitrary, inflexible deadlines. That only passes the cost burden to the most vulnerable communities – the same ones that are the lifeblood of the State's economy, and who are most often damaged by the very pollution sought to be reduced. The economies in this State and the country in general are based on mobility. Data on commutes clearly indicate that individuals expect to travel to reach their job, and that employers likewise expect them to do so. However, for a variety of reasons public transportation is not a realistic option for a large portion of that workforce. The workforce needs cars. More specifically, they need affordable cars. Combustion-based vehicles, despite their other weaknesses, are relatively easy and inexpensive to keep running as they age. This longer-term reliability has resulted in a rich market of used cars for people with limited means to buy and to keep on the road. The mobility of the State's workforce – and by extension the health of the State's economy – depends on the viability of that market. As a result, as the State forces gas cars out of the market and forces electrics in, and the market of inexpensive maintainable cars dwindles, income-limited individuals who cannot afford to buy new will increasingly be faced with a choice: buy a used electric car that, when it breaks, they will not be able to afford to repair; or spend inflated prices far beyond what they can afford on a gas car. Every EV on the road today will experience a battery failure and require replacement. If the State removes the ability of individuals already living paycheck to paycheck to be mobile by inflating the price of their cars, the State may find that the ability of those same people to get to work at all over comparatively shorter distances is dramatically diminished – collapsing already fragile personal economies. (2)

587. COMMENT: EVs do not meet every driver's needs or lifestyle. Consumers demand choice. Yet, ACC II will decrease consumer choice for the vehicles that they want to buy. (9)

588. COMMENT: By limiting the market and, therefore, possible competition, consumers might end up paying more while having fewer choices. Certainly, a mandate on this scale necessitates a thorough conversation with all stakeholders to ensure that it is feasible, effective, and does not have unintended negative consequences for consumers and the market. (8)

589. COMMENT: Not all consumers want EVs. EVs still account for less than 10 percent of all new vehicle sales in New Jersey. According to the Department, as of June 2023, there were 123,551 registered electric vehicles in New Jersey, compared to 91,515 in June 2022. While the number of registered electric vehicles is growing, the number pales in comparison to the sale of non-EVs. New Jersey has 2.5 million registered vehicles. So most registered vehicles are not EVs. That is a consumer choice, but ACC II limits that consumer choice. Our resilient residents are working class New Jerseyans who struggle valiantly to make the most of what they have. The government should not force working class people to buy vehicles they cannot afford to buy, nor should it limit their purchasing options or inconvenience them when they choose an option that is not preferred by the government. Creating a government regulation that limits New Jersey residents' options to buying in New Jersey only the vehicle mandated by government, buying only used vehicles, or traveling outside of the State of New Jersey for the vehicle of their choice, is not the proper role of government. (1)

590. COMMENT: Decisions regarding vehicle technology and choices should be left to the consumers and the competitive forces of the market, rather than being dictated by regulatory bodies. Environmental stewardship is important as well as supporting advancements in

technology that lead to cleaner and more efficient vehicles. However, the ACC II rule imposes undue restrictions on the citizens of New Jersey without adequate consideration for the economic impact and individual freedoms. Consumer autonomy and the free market must be preserved. A more balanced and market-driven approach, rather than a mandate, is the appropriate path forward to address environmental concerns while preserving individual choice and economic prosperity. (10)

591. COMMENT: The ACC II program limits consumer choice and may discourage consumers from replacing older vehicles or force them to buy out-of-State. While electric vehicles have their merits, they are not suitable for every consumer due to factors like price and individual needs. This mandate could limit market competition, potentially leading to higher costs and reduced choices for consumers. A comprehensive dialogue with stakeholders is essential to ensure feasibility and prevent unintended negative consequences. It is crucial to protect the environment and consumers. The Department is urged to reconsider the mandate, prioritizing a balanced approach. (6)

592. COMMENT: The Department should not adopt any rules that would severely limit or outright prohibit consumer choice. Ensuring clean resources and mitigating the effects of the climate crisis are priority policy goals. However, it is critical to the financial security of New Jersey residents that any electrification mandates be properly and thoroughly vetted. Electric vehicle affordability and accessibility must be of paramount concern. Forward-thinking environmental policies, like electrification, are key to reducing the effects of global warming. However, regulations that have drastic effects on the State’s economy and residents’ lives must be highly scrutinized and carefully reviewed for financial viability before being implemented.

Any rules that significantly limit the accessibility or even legality of owning and buying gas vehicles can be detrimental to New Jersey and its residents. (5)

593. COMMENT: While environmental concerns are of utmost importance, the ACC II rules raise several critical issues that must be carefully considered before adoption. It is essential to determine demand rather than imposing inorganic demand thresholds through government mandates. Government regulations should not artificially create demand thresholds for specific technologies. Instead, the market should naturally dictate the adoption of electric vehicles based on consumer preferences, economic factors, and technological advancements. The automotive industry is already moving towards the production and sale of EVs in response to consumer demand and global emissions goals. It is unnecessary to mandate further commitment from automakers, as they are motivated by market forces. New Jersey should explore and evaluate all available options for decarbonization instead of pursuing an outright ban on certain vehicles within a limited timeframe. A more flexible approach is needed to address diverse consumer needs and preferences. (312)

594. COMMENT: It is fundamentally unfair and unjust for the government to completely outlaw the sale of new gasoline-powered vehicles. More than 90 percent of consumers continue to choose gas-powered cars for a wide variety of reasons, and that option should not be stolen from them by government fiat. Any transition to more EVs or to exclusively EVs should be made through the conscious choice of the motoring public, and all involvement by the State should be through offering positive incentives. If EVs are always better in every circumstance for every motorist, then simply let the market do its work without a ban. If some are not choosing EVs over gas vehicles, then instead address the specific concerns they have.

The commenter states that they are not asking for a level playing field, just opposing a total State government ban on a widespread, reliable technology that has been widely used for a century, one which over 90 percent of New Jerseyans chose last year. If EVs are great for every single person in every single circumstance, then simply let the market speak for itself and let motorists decide for themselves what vehicle makes the most sense for their lives. If the only way a transition to all battery electric vehicles can be done is with a ban on new internal combustion engines, then that should be seen as an indictment of the policy. (70)

595. COMMENT: What is needed is a market-savvy national, indeed international, solution, not a piecemeal state-by-state solution to climate change or a political solution with no real hope of moving the market. The ACC II rules ignore the reality of the marketplace, which is that government can mandate but success is only achieved when consumers embrace. The BEV share of New Jersey's registrations and market share from 2018 through 2023 to date was seven percent in 2022, and 9.1 percent in 2023 (to date). The percentage must jump to 43 percent in 2027. Consumers will decide when New Jersey becomes a 100 percent EV market, not the government. Adopting this rulemaking, when more flexible options are available, is ill-advised. There is no evidence, based on past marketplace performance, that consumers are ready to buy ZEVs or PHEVs anywhere near the numbers mandated pursuant to ACC II. For sales from 2026 through 2035, the rules contemplate an unprecedented and aggressive trajectory of consumer adoption of new technology that is inconsistent with anything we have seen in the past. Indeed, pushing ahead with ACC II without even acknowledging the fact that New Jersey consumer purchases of ZEVs and PHEVs did not keep pace with the substantially lower thresholds in ACC I, raises serious questions about the assumptions that support the analysis behind this

rulemaking. The ACC II rules, proposed by the Department to make only EVs available for sale by 2035, will slow New Jersey's roll toward an all-ZEV future, not accelerate it. Slow and steady wins the race. By imposing stringent and unrealistic mandates on the percent of EVs that manufacturers deliver for sale in New Jersey, the rules will not force more people to buy EVs if they cannot afford one, if they cannot charge at home, or if they do not trust an anemic and unreliable public charging infrastructure. Limiting consumer choice and imposing marketplace mandates that will drive up the price of new cars in New Jersey will only force consumers into the used car market, which is not regulated by ACC II; to hold onto their older cars longer; or out-of-State to purchase the car they want and can afford and register in New Jersey. None of these options will advance the shared goal of increasing ZEV sales. The Department should explain to what extent consumers will be prohibited, starting in 2027, from buying the car in New Jersey that they want to buy, whether their choice is a new ICE, hybrid, or electric vehicle, and in subsequent years as the EV sales requirement increases. (27)

596. COMMENT: The Department states that this mandate is not limiting consumer choice, but it is actually enhancing consumer choice. The Department is wrong. The Department knows they are forcing consumers to buy a product they otherwise would not buy. The Department has done a study, referenced in the rule summary, which lays out a business-as-usual penetration of EVs compared to the penetration under the ACC II rule. There is a large gap in reality. If consumers were willing to purchase EVs then this rule would not be needed. But consumers have rejected EVs at the levels the Department wants so they are making the major decision to take away consumer choice. This draconian mandate in deciding who can drive a car and who cannot and what type of car they can drive is unprecedented and wrong. The consumer market is already

speaking. While about nine percent of new car sales are EVs (far shy of the existing mandate of 22 percent pursuant to the existing regulatory scheme), these sales reflect the early adapters, mainly people who can afford these cars and who like their performance and the fact that they are zero emissions. EVs are good cars if one can afford them. The challenges of implementing these rules will not be resolved in the truncated timeframe this rule envisions or overcome by government mandate. It is extremely arrogant of the Department to think it can dictate the market by fiat. Capitalist markets have succeeded in the past and have been cost efficient because they are market driven and not government mandated. Governments around the world who have failed to recognize the power of markets and who have, instead, set policies demanding consumer actions have failed. (113)

597. COMMENT: Despite a global public relations campaign and hundreds of billions in Federal, State, and local subsidies, electric vehicles simply fall short by every measurable metric. The State's tax-paying residents and businesses should not be mandated through regulations and executive orders to utilize knowingly inferior technology. For example, the SAE International paper co-authored with Car and Driver shows that in testing, EVs are far worse at matching EPA estimates than gas-powered vehicles. This study goes further to compare EPA fuel-economy and range estimates to the results of real-world highway tests, with EVs failing to meet the EPA's range figures on average. In an industry, like heavy construction, where productivity matters, these types of results will further burden small, medium, and large business, as well as dramatically impact residents. (399)

598. COMMENT: Given the advantages of ZEVs and improvements on the way to mitigate the disadvantages, ZEVs are an appealing vehicle choice to some but not all. Vehicle choice has

long been supported. In a free market, automakers market vehicles that meet the needs and wants of motorists and EVs are part of that mix. But the move by global legacy automakers to transition to predominantly offering EVs is not driven by the free market. Instead, it is driven by government policies around the world aimed at mitigating the impact of climate change. This clash on so many levels is bound to create a chaotic and troublesome transition for all concerned. There are engineering challenges and high costs of making and supporting EVs at scale. (118)

599. COMMENT: While the rulemaking acknowledges consumer considerations and potential impacts to vehicle manufacturers, dealers, and the service industry, it fails to show the significant impact that adoption of ACC II would have on individuals and small businesses who, when purchasing a new passenger vehicle, will have very limited options for buying an ICE vehicle in New Jersey. (251)

600. COMMENT: The ACC II rules ban the sale of all new ICE vehicles after 2035. Such a ban does not open choice. If EVs are superior to ICE vehicles, consumers and businesses will adopt them without the need for massive subsidies and mandates that eliminate the ability of consumers to purchase ICE vehicles. The ACC II ZEV mandates will not be reached at the current rate of EV purchases. This raises the important policy question of what the Department intends to do when it becomes clear that consumers are not responding to the mandates and whether the Department intends to adopt even more draconian approaches to force consumers to "choose" EVs. EVs were first developed over a century ago and were quickly made obsolete by ICE technology, which continues to improve. EVs remain a niche technology. If consumers do not wish to purchase EVs, they should not be forced to do so. The rule is an example of heavy-handed government regulation that will benefit only the few, at the expense of the many. (387)

601. COMMENT: If the rules are adopted, new ICE vehicles will be banned, thus limiting consumer options and thwarting environmental progress through innovation, while aggressively mandating the purchase of EVs by consumers, which will adversely impact consumers. (103)

602. COMMENT: The New Jersey EV market in 2021 represented 6.3 percent of automotive sales. No State incentive can realistically increase this to 100 percent in 2035. Adopting ACC II would require 35 percent of all new vehicles sold to be only EVs in 2025, three years from now. As the president of NJCAR recently stated, "Hope is not a plan." The rules are an attempt to force a centralized State controlled, command-and-control economy that will limit consumer choice and threaten to make new cars unaffordable for working and middle-class families, which in turn will threaten affordable mobility for most New Jerseyans. For the vast majority of New Jerseyans, EVs are not an option due to the uncertainty, range anxiety, charging issues, and additional costs associated with EVs. Yet the State plans to force residents to buy taxpayer-subsidized vehicles that are primarily purchased by the wealthy today. (342)

603. COMMENT: The government should allow the free market to work and not artificially prop up EVs through subsidies. (282 and 593)

604. COMMENT: Although climate change is a serious threat, banning ICE vehicles and mandating EVs will only solidify opposition to EVs and the backlash will only delay and stymie EV adoption and efforts to cut carbon emissions. Rather than creating an artificial ban on ICE vehicles, the State should use positive incentives to increase EV adoption and consumer awareness and win public confidence and support first. (554)

605. COMMENT: If the State wants to promote the use of EVs or hybrid vehicles, the effort should be limited to provide incentive to buyers, not penalizing those who choose to buy an ICE vehicle. (295)

606. COMMENT: Instead of banning ICE vehicles, the Department can promote EVs with rebates and/or incentives. (51 and 271)

607. COMMENT: The Department should not mandate all vehicles in 2035 to be EVs and should reconsider using incentives to encourage additional EV usage in the State. (241 and 625)

RESPONSE TO COMMENTS 553 THROUGH 607: As discussed in the Response to Comment 15 and the Response to Comments 238 to 258, transitioning to light-duty cars to ZEV technology is critical if New Jersey hopes to reduce greenhouse gas emissions and other air pollutants, which will have public health benefits, protect water and air quality, and safeguard ecosystems in the State. See, for example, 55 N.J.R. at 1773, 1780-81.

Some commenters argue that the market (consumer demand) should dictate when and whether ZEVs become the majority in the light-duty vehicle market, and that currently the majority of consumers are not interested in ZEV technology. However, the EPA, CARB, and the states that have adopted California's motor vehicle standards pursuant to section 177 of the Clean Air Act (known as "Section 177 states") have used emission standards to compel the market to adopt feasible, emission reducing technology measures for decades. Emission standards require manufacturers to produce the vehicles consumers want while using the technology necessary to reduce air pollution, protect public health, and mitigate the harms of climate change.

ACC II ensures "that [ZEVs], including their emission controls, perform properly throughout their life … and that consumers are not deterred from purchasing them both new and used. […] The minimum technical requirements a ZEV must meet pursuant to ACC II, in order to be certified by CARB, are very similar to the multi-pollutant exhaust emission standards that CARB and the EPA have been setting for ICE vehicles for decades. The range value, durability, useful life standards, labeling, warranty and recall requirements, data standardization, and charging requirements are all included in the ACC II program to ensure that owners of ZEVs have the same experience and comfort level that the owners of CARB-certified or EPA-certified ICE vehicles have had for decades." See 55 N.J.R. at 1776. Though it is true that consumer demand for ZEV technology is not currently as great as consumer demand for ICE technology, the increasing annual ZEV requirement through model year 2035 is expected to incentivize manufacturers to produce a greater volume of vehicles in more market segments to appeal to a larger number of consumers with varied operational needs and budgets.

The Department recognizes that, so long as consumer choice remains limited, vehicle affordability will remain limited. But as further detailed in the Response to Comments 289 through 419, ZEV vehicles are expected to reach price parity with comparable ICE vehicles as the ZEV sales mandate increases due to technology advances and economies of scale. As more models of new ZEVs become available for purchase, and a greater number of new ZEVs are sold, a greater number of more affordable, used ZEVs will be available on the market. See the Response to Comments 532 through 548. And as a result of the minimum technical requirements of ACC II, the used ZEVs coming on the market after model year 2027 will have greater range for a longer period of time and be subject to the new battery warranty provisions within ACC II.

As discussed in the Response to Comments 608, 609, 610, 611, and 612, a recent study demonstrated that most EVs driven close to 100,000 miles still have at least 90 percent of their original range left. For now, the choice to purchase a new, strictly ICE vehicle remains possible through at least model year 2034. Used ICE vehicles may be purchased indefinitely. And PHEVs (which can be powered by electric or gasoline) will remain a choice pursuant to ACC II indefinitely, because manufacturers may use CARB-certified PHEVs to satisfy a portion of their annual ZEV requirement. See the Response to Comments 45 through 82.

As discussed in the Response to Comments 87 through 115, the Department recognizes that the available makes and models of ZEVs on the market today will continue to increase. CARB's early model year flexibilities were designed to allow time for manufacturers to expand upon their existing product offerings. See the Response to Comments 16 through 44 regarding the ZEV requirement and vehicle values. In short, the purpose of the rules is not to curtail consumer choice, but to spur innovation among manufacturers so that consumers will have greater choices among ZEVs.

Batteries

Degradation

608. COMMENT: Battery degradation over time is a concern. With current technology, both light- and heavy-duty vehicle manufacturers expect battery capacity to incrementally diminish over time. Some heavy-duty chassis manufacturers are only warranting batteries to not fall below 80 percent capacity within two years of purchase. Not only are these batteries very expensive to replace, but a battery electric vehicle that meets the minimum range requirement when new may

fall below operational minimums early in its lifecycle making the unit unusable for its intended task. In addition, cold weather operation may reduce battery efficiency by as much as 40 percent creating a situation where a vehicle is only usable for part of the year. (651)

609. COMMENT: Batteries do not have the dependability of combustion engines, especially when saltwater is involved. (81)

610. COMMENT: EV batteries have a relatively short life. (365 and 441)

611. COMMENT: Battery life declines much more rapidly compared with engine life. (45)

612. COMMENT: The Department has not addressed what happens when an EV battery just stops taking a charge. ICE engines can last a very long time with proper maintenance, whereas a battery will eventually just stop taking a charge no matter how the maintenance. The Department should explain if there have been studies on the lifespan of a battery. (527)

RESPONSE TO COMMENTS 608, 609, 610, 611, AND 612: While the Department recognizes that batteries do degrade over time, recent data show that such degradation is even less than predicted. Recurrent published a study based on real world data collected from approximately 15,000 electric vehicles (https://www.recurrentauto.com/research/how-long-do-ev-batteries-last). The study indicates that only about 1.5 percent of the vehicles in the study needed battery replacements outside of recalls or warranties and many retained 90 percent of their charge at 100,000 miles driven. *Ibid*. In comparison, the most expensive major components that may require repair or replacement on ICE vehicles include the engine and transmission. Major engine repairs can include cylinders, head gasket, and camshaft work. Consumer Reports says that many ICE vehicle engines can be maintained to 200,000 miles, but some models may need major

engine work at less than 100,000 miles (https://www.consumerreports.org/cars/car-repair-maintenance/cars-that-are-most-likely-to-need-an-engine-rebuild-what-to-buy-a3227614920/). Major engine repairs, up to engine replacement, can cost $5,000 to $10,000. Likewise for transmissions, some may need major repair or replacement at less than 100,000 miles. J.D. Power says transmission replacement costs for an average vehicle can span $2,500 to more than $5,000 (https://www.jdpower.com/cars/shopping-guides/how-much-does-it-cost-to-replace-a-transmission-on-a-car).

Please see the Response to Comments 87 through 115 for an explanation of the minimum durability requirements for a ZEV to qualify as one vehicle value and electric vehicle performance in cold weather.

Mineral Sourcing

613. COMMENT: The U.S. leads the world in refining power. The U.S. is not a world leader in EV, mineral, or battery manufacturing power. China dominates the EV supply chain and currently controls much of the world's lithium supply. The U.S. will be building from the ground up. If the country turns its back on liquid fuels, it will be trading its liquid fuel security for dependence on China's EV economy. Only one North American lithium mine exists, and it faces serious opposition to new mining. Mass vehicle electrification raises other natural resource supply and humanitarian issues, as well. EVs need significant amounts of cobalt. More than half the global supply of cobalt is located in the Democratic Republic of Congo, the majority of which is mined using child labor. Policymakers should address the sustainability and humanitarian issues associated with the cobalt supply before promoting overly aggressive EV

targets. They should also assess the cost impacts on other consumer goods relying on cobalt, such as cell phones, if significant quantities of the resource are re-allocated to EV battery production.

In addition to cobalt, EVs require relatively large amounts of lithium. China controls 70 percent of the world's lithium-ion battery production and the amount required for EVs just to meet Europe's carbon reduction goals would dwarf existing production levels of this scarce, mined resource. The U.S. must ensure security of the lithium supply and battery production as that will be critical in any plan relying on massive vehicle electrification. (342)

614. COMMENT: As the Department considers options to reduce transportation emissions, it should consider and fully analyze the environmental impacts across the country and world in developing the necessary minerals to support the mandated volume of vehicles. (251 and 674)

615. COMMENT: It does not appear that the Department has reflected on the impact of this action in relation to energy security considering that moving to BEVs will force the industry to rely on other countries, such as China, for materials to manufacture BEVs. The Department should consider and fully analyze how the State's adoption of ACC II will impact energy security and how much the technology relies on China and other countries. (115, 223, 251, and 518)

616. COMMENT: Lithium, cobalt, copper, need to be mined in the U.S. to keep the nation's jobs intact and prevent the U.S. from being dependent on other countries. (89)

617. COMMENT: In August, geologists discovered lithium deposits near the Nevada/Oregon border that are estimated to be one of the largest deposits in the world. This will help develop more secure and resilient domestic supply chain. (376)

618. COMMENT: The environmental impact of going all electric must be considered. If minerals for batteries will be mined in the U.S., what will be the environmental impact including impact on groundwater and communities where mining would occur? (674)

619. COMMENT: The Department must consider the location of the lithium and cobalt mines and the sufficiency of supplies of those elements necessary for batteries for EVs. Also, the greater the demand for the elements, the greater the likelihood that their price will rapidly increase, and that some unscrupulous enterprises will make use of child or slave labor. The State should have a plan to protect the shipments of raw goods, such as lithium and cobalt, to protect the supply chain lines. Supplies of the vital elements must also be protected against war, natural disaster, or force majeure. (44)

620. COMMENT: The Department should not adopt the rules because many of the battery components are sourced outside the United States. Some commenters stated this will increase reliance on other countries, cause supply issues, and/or result in increased pollution from transportation. (59, 119, 143, 221, 223, 274, 349, 397, 408, 423, 428, 441, 465, 467, 503, 509, 518, 592, 605, 623, 633, 648, 662, and 674)

621. COMMENT: ZEV technology lacks solid domestic supply chains. Our country has a dominant auto industry and has worked for decades to gain energy independence, to the great benefit of American workers and local communities. The existing supply chain's disbursement around the world makes it more susceptible to interruptions, which could negatively affect New Jersey's economic growth. While Congress has invested recently in onshoring more electric battery manufacturing, it will take decades to fully develop this technology and it would be irresponsible to hit reset now. (14)

622. COMMENT: The Department should not adopt the rules because most of the parts and minerals for EVs are either manufactured or mined in other countries. Some commenters cite specific concerns about the method of the mining, which results in substantial pollution, and equipment used for mining. (21, 33, 124, 153, 196, 246,284, 361, 371, 384, 403, 408, 455, 509, 518, 543, 669, and 717)

623. COMMENT: The Department should not adopt the rules because the manufacturing and production of EVs is bad or worse for the environment. Some commenters cite specific concerns, including the harm to the environment caused by mining for the materials used in EV batteries, as well as the manufacturing process, such as the damage to the land during mining, the limited supply of these resources/resource depletion, and/or worker safety. (21, 22, 23, 24, 29, 33, 36, 43, 45, 63, 75, 78, 80, 110, 115, 125, 129, 147, 153, 158, 164, 166, 176, 182, 194, 196, 218, 235, 239, 243, 267, 279, 284, 287, 298, 309, 316, 320, 333, 347, 350, 361, 365, 367, 371, 380, 384, 393, 403, 413, 423, 439, 442, 445, 447, 449, 455, 464, 465, 476, 481, 485, 502, 509, 518, 524, 527, 529, 531, 556, 558, 588, 624, 633, 639, 641, 643, 663, 664, 669, 678, 679, 691, 689, 717, 721, 725, and 728)

624. COMMENT: The Department should not adopt the rules because the elements used in EV batteries are sourced in places using slave and/or child labor, pay extremely low wages, and/or raise other human rights/humanitarian issues. (21, 89, 101, 124, 147, 176, 182, 246, 298, 361, 380, 384, 397, 408, 428, 476, 485, 556, 588, 628, 639, 641, 664, 678, 715, 717, and 721)

625. COMMENT: As EVs will have to be replaced sooner than ICE vehicles, more mining and more batteries in landfills will result, calling into further question whether all EVs are a net positive for the environment. (527)

626. COMMENT: The pollution and damage from EVs are just starting to be known, compared with the pollution from ICE vehicles that can be improved. (592)

627. COMMENT: Mineral mining threatens water supplies. Lithium uses 500,000 gallons of water per ton processed; copper uses 100,000 gallons per ton. Spent water used in processing is then unclean. These substances are not renewable and are vastly in short supply. EVs displace abundantly available gas with limited supply substances and displace drilling with massively costly mining. (540)

628. COMMENT: Current high density battery technologies rely on limited raw materials, such as lithium. The extraction of lithium creates both environmental and human problems that need to be addressed. Some alternatives, such as hydrogen fuel cell technologies that rely on limited raw materials, such as platinum and palladium, raise similar issues. Innovations in battery technology using more common, safer materials would be helpful, and research and development is under way to replace and exceed these technologies and limits. High energy density batteries dependent upon rare materials could become a thing of the past without any major science breakthroughs as the vehicle fleet becomes dominated by electric vehicles and financing and manufacturing opportunities arise, such as battery leasing, fast swapping systems, and redox flow liquids at the pump. Such approaches could support the continuation of New Jersey's locally operated gas stations as businesses serving the electric vehicle fleet in a new form. (277)

629. COMMENT: Battery technology has advanced considerably but is an environmental disaster currently with respect to the raw materials and there are no great break-throughs on the horizon to address the issues. (198)

630. COMMENT: There are many outstanding questions with regard to the environmental impact of the mass production of EV batteries. (2)

631. COMMENT: There are serious environmental concerns about the precious metals needed. (138)

632. COMMENT: Batteries are made from toxic metals mined out of the country. (359)

RESPONSE TO COMMENTS 613 THROUGH 632: While the Department acknowledges that the sourcing of mineral resources required for electric vehicle battery production is an important issue as it relates to ZEV production, supply chain and national security issues must be addressed at a national level. The Federal Inflation Reduction Act (IRA) provides incentives for domestic sourcing of minerals and batteries. The IRA includes the Advanced Manufacturing Production Credit, which is applicable to critical minerals and battery technology, the Clean Vehicle Credit, which aligns the tax credit available to taxpayers who purchase electric vehicles with the sourcing of critical minerals and domestic manufacture of batteries, and an Extension of the Advanced Energy Project Credit, which is applicable to facilities that manufacture electric vehicles and batteries. With the understanding that it takes years to commence a new mining operation, this is a longer-term strategy but one that nevertheless should help alleviate concerns regarding overseas mineral sourcing as demand for ZEVs continues to increase in the future.

In addition, to better address concerns over sourcing of critical minerals and conditions for mine workers, the U.S. Department of State formed the Mineral Securities Partnership (MSP). MSP partners include Australia, Canada, Finland, France, Germany, India, Italy, Japan, Norway, the Republic of Korea, Sweden, the United Kingdom, the United States, and the

European Union (represented by the European Commission). The MSP will support projects that:

- Demonstrate responsible stewardship of the natural environment;
- Engage in consultative and participatory processes regarding land access and acquisition;
- Commit to meaningful, ongoing consultation with communities;
- Ensure safe, fair, inclusive, and ethical conditions in the community and the workplace;
- Provide economic benefit for workers, and local communities; and
- Ensure transparent, ethical business operations.

(https://www.state.gov/minerals-security-partnership/#Principles).

Due to of the importance of issues related to ZEV batteries, such as mineral resource supply chains, current or future resource pricing, and the sourcing of minerals, the Department will monitor, participate, and coordinate with all Federal efforts to address potential mineral resource concerns. Material recovered from recycling batteries would enable a significant amount of critical materials to be reintroduced back into the supply chain. This circular economy can provide a large portion of the material needed to produce a new EV battery, which would increase the domestic sources for such materials, and reduce the demand for raw material mining (https://theicct.org/publication/recycling-electric-vehicle-batteries-feb-23/). Nonetheless, the manufacture and disposal of ZEV batteries are beyond the scope of this rulemaking. See also the Response to Comments 633 through 645.

Disposal and Recycling

633. COMMENT: The Department should not adopt the rules because of the environmental impact of used batteries and/or EV battery disposal, there is no safe way to dispose of the EV batteries and/or there is no effective plan in place for recycling the EV batteries. (22, 29, 33, 37, 43, 45, 62, 64, 80, 92, 110, 115, 119, 129, 143, 164, 176, 196, 198, 206, 221, 239, 263, 274, 279, 287, 294, 309, 316, 320, 333, 347, 359, 374, 383, 384, 393, 395, 403, 413, 423, 434, 441, 442, 447, 467, 476, 502, 506, 527,529, 531, 558, 559, 578, 605, 611, 624, 642, 643, 648, 669, 670, 674, 678, 688, 689, 720, and 725)

634. COMMENT: At present, a Tesla has approximately 90 pounds of lithium-based batteries, with an estimated life expectancy of eight to 12 years. There must be a disposal plan for all of this environmentally sensitive refuse. (166)

635. COMMENT: The Department must consider the environmental impact of the exponential growth in spent lithium-ion batteries from all of the new EVs. (31 and 348)

636. COMMENT: Switching to EVs will be worse for the environment because no one knows how to clean up hazardous waste created by end-of-life batteries, so they just get buried. (78)

637. COMMENT: Replacement of battery packs is not environmentally friendly. (308)

638. COMMENT: Battery technology leads to more environmentally unfriendly waste. Batteries have a finite life and EVs carry large batteries, which will go to landfills. The batteries contain acids that can add to environmental deterioration. (204)

639. COMMENT: When a 1,500-pound EV battery can no longer be charged it will wind up in a toxic landfill and contribute to ground pollution. (363)

640. COMMENT: Abandoning an EV will more likely release toxic heavy metals and chemicals into the ground compared with a gas vehicle, which at worst would only leak oil or gasoline. (383)

641. COMMENT: At some point all of the batteries will fail and will need to be disposed of, which will create a massive hazardous waste issue because batteries contain chemicals and toxic minerals and cannot be recycled. (115)

642. COMMENT: No one is going to want to buy a used EV and so these vehicles will be dumped in a landfill. (648)

643. COMMENT: Unlike petroleum, the critical minerals in EV batteries can be recycled. The global market for battery recycling alone is expected to grow as an increasing number of EVs approach their end of life. The volume of such feedstocks, currently less than two GWh, could reach 100 GWh by 2030 and 1.3 TWh by 2040. (79)

644. COMMENT: There are many outstanding questions with regard to the environmental impact of the mass disposal of EV batteries (2)

645. COMMENT: New Jersey must have a plan for recycling batteries once the electric vehicle has been fully consumed. (44)

RESPONSE TO COMMENTS 633 THROUGH 645: The Department acknowledges that EV battery disposal, reuse, and recycling are important issues in light of the increased demand in BEVs that will result from the adopted rules. The ACC II rules include “battery labeling requirements […] which also should support proper and efficient disposal and recycling.” CARB FSOR Appendix A, at 14. Thus, the ACC II rules should assist with battery repurposing and eventual recycling back into usable minerals. The Department recognizes that the

development of disposal and recycling for EV batteries is an emerging industry, but by setting an annual ZEV requirement, the Department, California, and the other states that have adopted California's motor vehicle standards are providing the regulatory certainty this industry needs to make the long-term investments that will be crucial to the continued growth and innovation of the disposal and recycling industry. The State of Washington reported in their adoption of the ACC II program that "there are currently 14 recycling plants in the U.S. that are either in planning, pilot, or commercial stages."

In general, EV batteries are lasting longer than previously predicted. According to a recent J.D. Power article, EV batteries are expected to last up to 20 years. See https://www.jdpower.com/cars/shopping-guides/how-long-do-electric-car-batteries-last#:~:text=Generally%2C%20EV%20car%20batteries%20last,management%20systems%20and%20charging%20restrictions. In addition, please see the Response to Comments 608, 609, 610, 611, and 612 referencing a Recurrent study of real world results showing typical battery capacities greater than 90 percent at 100,000 miles.

There are approximately 13 companies in North America that are already participating in the recycling of EV batteries. CalEPA. (2022). Lithium-Ion car battery recycling advisory group final report. California Environmental Protection Agency. https://calepa.ca.gov/lithium-ion-car-battery-recycling-advisory-group/.

Fires and Safety

646. COMMENT: The Department should not adopt the rules because EV batteries are dangerous and/or the fire hazard risks and damages associated with EV battery fires and resulting danger and harm to citizens are too great and/or have not been addressed. Some commenters cite

specific risks, including spontaneous combustion of batteries, batteries igniting from exposure to floodwater and/or brine used in the winter and/or saltwater, EV fires in garages, parking structures and high-density complexes, batteries igniting in accidents, and/or the need to use massive amounts of water to fully extinguish EV battery fires, as well as longer time to extinguish and increased health and safety hazards faced by first responders when fighting EV fires. (11, 22, 24, 65, 80, 89, 92, 104, 109, 115, 147, 182, 193, 200, 216, 218, 261, 263, 272, 298, 309, 316, 328, 333, 346, 365, 372, 395, 403, 425, 428, 433, 439, 467, 447, 449, 484, 503, 506, 516, 519, 528, 529, 537, 538, 558, 586, 593, 609, 619, 625, 633, 648, 665, 670, 678, 689, 691, and 725)

647. COMMENT: The State has not explained how it plans to handle the issue of battery fires. From storage to transport to charging, a new fire hazard will be introduced into every area of the State, without the increased equipment, training and personnel needed to protect against and handle these fires. New technology is bound to have setbacks along with recalls, which could have tragic consequences. (142)

648. COMMENT: The Department should adopt the rules but should also address the fire dangers associated with batteries in EVs. (106)

649. COMMENT: EV batteries present a problem for emergency personnel responding to car crashes. As the battery is within the safety cage of a car, the battery may contact the frame and become electrified in a crash. Emergency personnel can hit it if they have to cut the car apart to get to the person trapped. This poses safety concerns for the rescuers, as well as those trapped. (365)

650. COMMENT: EVs are highly dangerous in accidents because a fire cannot be put out and they can explode. (259)

651. COMMENT: The Department must consult with fire departments about possible EV battery fires, since extinguishing the fires is more difficult than extinguishing a fire from an ICE vehicle. (181 and 447)

652. COMMENT: The increase in EV use will affect fire companies insofar as they will need to purchase or retrofit fire trucks to extinguish fires as a result of lithium battery. These fires burn hotter and last much longer than a traditional combustible engine. The State may need to offer grant funding to communities to purchase fire equipment to extinguish lithium batteries. (44)

653. COMMENT: EV car batteries are under repeated recalls due to malfunctioning, overheating, and catching on fire. (365)

RESPONSE TO COMMENTS 646 THROUGH 653: As referenced in CARB's rulemaking documents, AutoinsuranceEZ conducted an analysis, using data collected by the National Transportation Safety Board, the U.S. Department of Transportation Bureau of Transportation Statistics, and recall data from a multi-agency U.S. government website (https://www.recalls.gov/), to calculate the number of vehicle fires by fuel type in 2022 with the following results:

Fuel Type	Fires per 100k vehicles	Total fires
Hybrid	3,475	16,051
Gasoline	1,530	199,533
Electric	25	52

(https://www.autoinsuranceez.com/gas-vs-electric-car-fires/)

By scaling down, to make the numbers more straightforward, the analysis shows that for every 1,000 gasoline vehicles, 15.3 may catch on fire. For every 1,000 electric vehicles, only 0.025

may catch on fire. In summary, the risk of fire in a gasoline vehicle is 60 times greater than the risk of fire in an electric vehicle.

The AutoinsuranceEZ analysis also looked at vehicle recalls for fire risk. For the year 2020, 1,085,800 gasoline vehicles were subject to recall for fire risk from electrical shorts, fuel leaks, and ABS (anti-lock braking system) overheating. During the same time, 32,100 hybrids and 152,000 electric vehicles were subject to recall for battery issues. There are frequent recalls for fire risk on gasoline vehicles, including some with warnings to park the vehicle outside and away from buildings and some with warnings to not drive the vehicle. Gasoline vehicles are subject to frequent fire risk recalls but receive relatively little media coverage because it is more the norm than newer technology electric vehicles subject to greater scrutiny.

The Highway Loss Data Institute (https://www.iihs.org/) published a Bulletin (Vol. 38, No. 11: April 2021) comparing the risk of noncrash vehicle fires in electric vehicles with their internal combustion engine vehicle counterparts. To clarify, this study looked only at vehicles for which the manufacturer offered both an electric and non-electric version of essentially the same vehicle. They concluded, "[o]bserved noncrash fire claim frequencies were similar for the electric vehicles (0.19 claims per 1,000 insured vehicle years) and conventional counterparts (0.20 claims)." In contrast, the AutoinsuranceEZ study, above, which used data across all vehicle types, found that gasoline vehicles overall have a higher fire risk than electric vehicles.

The Australian Department of Defense funds a private company, EV FireSafe, to compile statistics on global EV usage and fire risk. EV FireSafe provides quarterly reports. The latest report is found here: https://www.evfiresafe.com/_files/ugd/8b9ad1_01aa449ee5074086a55cb42aa7603f40.pdf. As of

June 30, 2023, they have recorded only 393 verified electric vehicle fires worldwide since 2010. While the total number of electric vehicles on the road worldwide is not precisely known, some sources calculate at least 26 million vehicles based on sales data from recent years. In 2022 alone, electric vehicle sales exceeded 10 million, accounting for 14 percent of all new car sales globally. A total of 393 verified electric vehicle fires out of a population of 26 million electric vehicles is a fire risk of 0.0015 percent, or 4 out of 260,000.

Commenters also express concern about the difficulty in extinguishing electric vehicle battery fires. The Department acknowledges that this is an issue that is being examined around the world. Between the development of battery chemistry less likely to undergo, or even immune to, thermal runaway, and the integration of better voltage and temperature monitoring systems by vehicle manufacturers, the Department believes that the source of fires will be reduced over time. Additionally, though this is beyond the scope of the rulemaking, training and appropriate equipment for fire fighters and first responders can better address the ability to extinguish vehicle battery fires in the interim. Tesla has published extensive training materials for first responders (https://www.tesla.com/firstresponders), including how to safely handle battery fires. The National Fire Protection Association also has detailed information and first responder training available on their website (https://www.nfpa.org/EV).

Air Toxics

654. COMMENT: The Department regulates the emissions of air toxics in New Jersey. A revised air toxic rule was adopted just a few short years ago. The adoption of the ACC II rule proposal will result in the emissions of air toxics and subsequent exposure to New Jersey citizens that will increase throughout New Jersey with time as the number of lithium-ion battery powered

automobiles increases. Lithium-ion batteries can undergo uncontrollable thermal runaway as a result of manufacturing defects, thermal protection software failures, accidents, and as seen recently during Hurricane Ian in Florida, flooding. When a lithium-ion battery undergoes thermal runaway, it cannot be extinguished, only slowed down with thousands of gallons of water. The following document analyzed the emissions of air toxics from EV battery fires, and also analyzed the fire water contamination:

https://plus.empa.ch/images/2020-08-17_Brandversuch-Elektroauto/AGT_2018_006_EMob_RiskMin_Undergr_Infrastr_Final_Report_V1.0.pdf.

Inhalation Exposure from lithium-ion battery fires include the following chemical substances: hydrogen fluoride, phosphoric acid, phosphine, PAHs, cobalt aerosols, nickel aerosols, and manganese aerosols. Cobalt and nickel are carcinogens and are readily dispersed into the environment through the air and through water if fire suppression is required using water.

The Department has failed to address in the social, economic, and environmental impact statements the emerging problem of air toxics and ground water contamination from lithium-ion traction batteries undergoing thermal runaway. The Department must take into account how many tons of air toxics and carcinogens will be released into the environment and the cumulative health risk to New Jersey citizens by 2050 when nearly 5,000,000 batteries are projected to be in use. Runoff from firefighting operations may affect drinking water. Air toxics will affect overburdened communities. Also, municipalities must have emergency plans in place in case a parking garage with hundreds or thousands of EVs catches fire. Local and State governments will have to address increasing numbers of battery fires. It is incumbent upon the Department to

evaluate this issue for the safety and welfare of New Jersey residents and its environment. For these reasons the Department should withdraw this application. (317)

655. COMMENT: EVs are not as safe as ICE vehicles because when they catch fire, they emit toxic fumes. (182)

RESPONSE TO COMMENT 654 AND 655: As the Department noted in the Response to Comments 646 through 653, the risk of an EV spontaneously igniting is far less than the risk of a gasoline vehicle fire. Advances in battery technology are continuing to create safer batteries that decrease this risk. If we apply the historical risk of EV fires to future EVs, even if an unrealistic assumption, the number of EV fires is still so few as to have an insignificant impact on air toxics in New Jersey on a Statewide scale. As with any catastrophic event like a fire where toxic chemicals are involved, there may be an impact in the immediate vicinity. However, the minimal risk of EV fires, coupled with the inability to predict where and when such fires may occur makes it impossible for the Department to meaningfully assess any impact on air toxics in New Jersey. The same principle applies to any potential localized soil or groundwater contamination. Additionally, adoption of the ACC II program will reduce the emissions of toxic air contaminants that result when fossil fuel is combusted in internal combustion engine vehicles. See CARB ISOR at 134.

Electromagnetic Fields

656. COMMENT: Lithium-ion batteries are dangerous and emit electromagnetic fields. (44 and 593)

RESPONSE: Commenters have expressed concern as to the effects of electromagnetic fields (EMF) in electric vehicles. The European Commission conducted a study, under a project called

EM Safety. Several European nations participated in the study. Detailed results are available at: https://www.sintef.no/projectweb/em-safety/. The overall project conclusion is that EMF exposure to drivers and passengers in an electric vehicle is well below health standards for EMF exposure as established by the International Commission on Non-Ionizing Radiation Protection. The EM Safety project also concludes that exposure to some chemicals in gasoline and combustion engine exhaust poses a greater cancer risk than EMF exposure in either electric or combustion engine vehicles. Consumer Reports also looked at EMF exposure in hybrid vehicles (which use a battery and electric motor for propulsion along with an internal combustion engine) compared to internal combustion engine vehicles (https://www.consumerreports.org/cro/news/2010/08/mythbuster-emf-levels-in-hybrids/index.htm). Consumer Reports concluded, "In this series of tests, we found no evidence that hybrids expose drivers to significantly more EMF than do conventional cars. Consider this myth, busted."

Environmental Justice

657. COMMENT: The definition of an "overburdened community" includes low-income population. The Department should hold a separate hearing under the Environmental Justice rules to address the economic and financial stressors this rules will impose on overburdened communities. (319 and 499)

658. COMMENT: In tandem with ramping up electric vehicle sales, we must ensure that these vehicles are powered up by truly green renewable energy at the grid and community level, not perpetuate the operation of fossil fuel plants located in low-income communities of color --

communities that have born the burden that others benefit from to this day. This is an injustice that must end. (265)

659. COMMENT: The Department should champion sustainable policies that curtail fossil fuel consumption, advance renewable energy initiatives, and protect the well-being of marginalized populations. By addressing these issues proactively, the State cannot only combat climate change but also save billions in healthcare costs, especially for vulnerable communities and new immigrants. (307)

660. COMMENT: The Department must break the patterns of climate injustice and prioritize sustainable policies that reduce fossil fuel consumption, promote renewable energy, and safeguard the well-being of marginalized communities. Given the escalating health-related challenges and potential increases in fossil fuel use, taking action now cannot only mitigate climate change but also save billions of dollars in healthcare costs, particularly in vulnerable populations and newly arriving immigrant communities. The Department’s support and leadership in addressing these critical issues are crucial for a more equitable and sustainable future for all New Jerseyans. (511)

661. COMMENT: Rising temperatures are evident, but its effects on human health are of particular concern as the climate crisis is arguably affecting the health and well-being of urban populations. Existing patterns of climate injustice should be put to a halt, and for government representatives to adapt sustainable policies and design systems that prevent climate degradation and promote climate change adaptation. One of the government's greatest expenditures is healthcare. Health negative impacts are projected to escalate, with the potential substantial increase in fossil fuel use. Correspondingly, taking action to cut fossil fuel use and climate

pollution could yield hundreds of billions of dollars in avoided health harms in marginalized populations and newly arriving immigrant communities. (400)

RESPONSE TO COMMENTS 657, 658, 659, 660, AND 661: As explained in the Response to Comments 238 through 258, the ACC II rules are expected to reduce transportation emissions and thereby reduce stressors in overburdened communities. As explained in the Response to Comments 289 through 419, the Department recognizes that more is needed to ensure that overburdened communities enjoy equal access to clean transportation through programs, such as electric ride hailing and ride sharing. Although the Department is constrained by the identicality requirements of the Clean Air Act, the Department will continue to work with the DCA, BPU, EDA, and other agencies to holistically evaluate a variety of regulatory and non-regulatory approaches to addressing emission and equity issues in overburdened communities.

National Standards Versus State Standards

662. COMMENT: States have the obligation and authority to ensure continued progress occurs on reducing greenhouse gas emissions and other air pollutants, regardless of Federal action (or inaction). Providing long-term certainty to the industry, as the proposed rules do, will be important not only today, but in future political environments where Federal inaction on climate could occur again. In fact, several auto manufacturers—including Ford, Volkswagen, BMW, Honda, and Volvo—support California's right to set its own more-stringent-than-Federal auto pollution standards, and the rights of states to also adopt these rules. (292)

663. COMMENT: With no equivalent Federal policy at this time, expeditious and ambitious State action is imperative. (201)

664. COMMENT: While electrification is generally a good idea, the Department should consider waiting to adopt the rules until California receives a waiver from the EPA. (549)

665. COMMENT: The Department should refrain from adopting the California ACC II rule, which has not been approved by the EPA, and consider alternatives that could result in achieving the societal goals of reducing carbon emissions in a way that is faster and more cost effective for the people of New Jersey. (251)

666. COMMENT: Before adopting ACC II, the Department must conduct a thorough analysis comparing the environmental and health benefits of the ACC II rules to those achievable pursuant to the new Federal rules announced in April 2023. The Department should not rush into implementing ACC II without a comprehensive assessment. (113 and 312)

667. COMMENT: The Department never studied the more stringent EPA plan recently proposed. If a comparison of the two plans means the Department chooses to not adopt ACC II, New Jersey would be subject to the EPA plan, which addresses emission concerns while protecting consumer choice and vehicle affordability. The Department cannot make a fair determination on which path forward is better for New Jersey consumers until it compares the benefits of the Federal rules with the ACC II benefits. The Department should refresh its analysis of the relative costs and benefits associated with the choice between following California or rejoining the majority of states that operate pursuant to the Federal rules. (27)

668. COMMENT: A successful EV transition will require more flexibility than can be afforded by the ACC II program. Adopting the Federal emissions program when soon finalized with State ZEV goals supported by legislation is likely a smarter and more successful approach. And

reality-based transparency with any approach will be welcome and will likely produce more widespread public support. (118)

669. COMMENT: The State of New Jersey is faced with a binary choice: adopt California's ACC II plan or revert to the Federal Clean Car rule. The Federal Clean Car rule imposes new emission standards on manufacturers for all vehicles but does not create purchasing requirements that limit consumer choices. New Jersey is not California. The Department should not blindly accept the California proposal. Instead, the Department should withdraw the proposal in favor of maintaining consumer choice. (1)

670. COMMENT: Adopting the rules will turn New Jersey into the mess California is. (306)

RESPONSE TO COMMENTS 662 THROUGH 670: The Department reviewed the expected impacts of New Jersey's incorporation by reference of California's ACC II regulation and determined that the rulemaking is necessary and appropriate to reduce emissions of greenhouse gases and mitigate the impacts of climate change and criteria pollutants on air quality and public health. The Department recognizes the potential benefits of a national program and supports the Federal government's efforts to impose more stringent multi-pollutant exhaust emissions standards for light-duty and medium-duty vehicles. See 88 FR 29184 (May 5, 2023). At the time of this adoption, however, the EPA has not adopted final regulations and, therefore, the Department has determined to move forward with the ACC II rules to obtain the emissions and health benefits expected to result. Moreover, as explained in the notice of proposal (55 N.J.R. at 1783), the EPA's proposed rules and the ACC II rules are different in approach; the ACC II rules have requirements that will benefit consumers, particularly related to batteries and charging, that the EPA did not include in its proposal. By adopting the rules now, the Department is complying

with the Clean Air Act's lead-time requirement to ensure that the rules are enforceable for model year 2027, if, and when, California receives a waiver. As explained in the notice of proposal and provided at N.J.A.C. 7:27-29A.2(c), the rules "will not be enforceable in New Jersey unless or until such time as California receives a waiver from the EPA, pursuant to 42 U.S.C. § 7543, as published in the Federal Register, for the applicable engine standard, vehicle standard, or other emission requirement." 55 N.J.R. at 1775.

New Jersey-Specific Analysis

671. COMMENT: The Department repeatedly relies on California assessments without having completed New Jersey-specific analysis including, but not limited to, grid readiness, availability of charging infrastructure, and impact of cold weather conditions on the range of EVs. For example, in the "Consumer Considerations and Charging Infrastructure Needs" section of the proposal, the Department repeatedly references the California Air Resources Board's Initial Statement of Reasons (ISOR) assessment – which was developed specially for California. As another example, the Department relied on California's Standardized Regulatory Impact Assessment which only considered potential costs on California individuals and businesses, rather than completing New Jersey-specific analysis. For credibility and transparency, the Department should complete State-specific analysis and give stakeholders an opportunity to comment before moving forward. (647)

672. COMMENT: The rulemaking fails to provide a detailed analysis of the Department's evaluation of California's program and its consideration of all available facts. Rather, general

statements are made that appear to assume positive impacts of the California program. However, what is best for California is not necessarily what is best for New Jersey.

The rulemaking further addresses indirect economic impacts to consumers, yet largely defers to projections and analysis conducted by the California Air Resources Board (CARB) for ACC II. However, this analysis was performed by CARB specific to vehicle owners in California – costs of the proposed rule to consumers in New Jersey were not adequately addressed. (251)

673. COMMENT: Data show nothing done in New Jersey would have a measurable effect on global warming so the Department must explain how it justifies the EV mandate. The Department should provide the public with hard numbers along with New Jersey-specific impact studies. New Jersey is not California. (116)

674. COMMENT: New Jersey has elected to fall in "lock step" with California, assuming they were correct in all of their judgments. New Jersey did not undertake its own independent analysis of the technical, financial, practical, and lifestyle impacts of this mandate. (350)

RESPONSE TO COMMENTS 671, 672, 673, AND 674: The Department conducted the social and economic analysis required by the APA. See N.J.A.C. 1:30-5.1(c). The Department acknowledges that these analyses relied in large part on California's regulatory impact analysis, which included a number of assumptions. Nevertheless, the Department determined that the bulk of CARB's assumptions were applicable in New Jersey and, thus, appropriate for New Jersey's analysis. For example, one commenter argues that the Department failed to consider New Jersey-specific charging infrastructure as an impact on consumers. The Department determined that differences in charging infrastructure between New Jersey and California did not invalidate the applicability of CARB's analysis and conclusions that the Department cited. The Department

additionally included a discussion of New Jersey-specific legislation and a New Jersey-specific report produced by the BPU to address New Jersey-specific charging infrastructure status and future needs. See 55 N.J.R. at 1782-83. Thus, the Department adjusted its analysis when and where needed.

Legal

Authority

675. COMMENT: California officially adopted the ACC II regulations on November 30, 2022, allowing for other states to also move to adopt them pursuant to the Federal Clean Air Act and State law. New Jersey has such authority pursuant to existing State law and should use that authority to implement the ACC II rules. Specifically, N.J.S.A. 26:2C-8(a) gives the Department the "power to formulate and promulgate, amend and repeal codes and rules and regulations preventing, controlling and prohibiting air pollution throughout the State or in such territories of the State as shall be affected thereby," meaning that the Department has the authority to adopt ACC II or any other rule that prevents harmful air pollution in New Jersey. See also 42 U.S.C. § 7507 (providing that states "may adopt and enforce for any model year standards relating to control of emissions from new motor vehicles … if … such standards are identical to the California standards"). (292)

676. COMMENT: The Department should not adopt the rules because it impedes freedom of choice. Some commenters cite specific concerns ranging from opposition to this action being taken by the executive branch (as opposed to the New Jersey Legislature or the voting public) to the opinion that this action is beyond the authority of the government. (12, 13, 14, 19, 20, 22,

28, 29, 30, 34, 35, 36, 39, 44, 50, 59, 69, 76, 77, 83, 84, 86, 87, 88, 91, 95, 99, 101, 104, 105, 110, 115, 117, 121, 132, 133, 134, 135, 141, 148, 153, 154, 155, 157, 158, 159, 163, 177, 181, 182, 185, 187, 194, 195, 200, 208, 214, 215, 216, 225, 226, 228, 233, 236, 239, 240, 242, 246, 247, 253, 254, 261, 264, 267, 268, 269, 273, 282,284, 285, 289, 296, 297, 300, 303, 314, 318, 320, 321, 322, 326, 327, 333, 341, 348, 349, 361, 363, 370, 378, 380, 381, 386, 388, 390, 392, 395, 401, 403, 404, 407, 413, 415, 417, 418, 425, 426, 430, 431, 436, 439, 440, 441, 442, 444, 446, 447, 449, 450, 451, 452, 453, 454, 456, 457, 464, 478, 496, 499, 502, 508, 513, 517, 518, 524, 530, 531, 538, 542, 543, 551, 553, 557, 561, 565, 568, 572, 573, 575, 577, 580, 589, 593, 595, 596, 599, 600, 601, 603, 614, 618, 619, 622, 627, 631, 632, 635, 643, 646, 649, 652, 654, 661, 668, 669, 672, 674, 682, 683, 689, 693, 694, 697, 698, 699, 704, 708, 710, 714, 723, 725, and 728)

677. COMMENT: The rules will infringe on citizens' freedom to travel, especially if EVs are the only type of vehicle allowed to be registered. (190)

678. COMMENT: Based upon 600 interviews among voters in New Jersey that were conducted from March 8 through 12, 2023, more than two-thirds of New Jersey respondents support the Governor getting approval from the State Legislature to ban the sale of new gas- and diesel-powered vehicles in the State. Just 12 percent of voters support the Governor moving unilaterally to accomplish this policy. Also, 60 percent of respondents support New Jersey implementing its own rules on EVs rather than being forced to follow the rules of California. (126)

679. COMMENT: A policy change this broad and this significant should be done through the legislative process, by officials directly elected by the public, rather than through the regulatory

process. A change this drastic over this short a timeline was not considered as a possibility by the Legislature when they opted to follow California's lead in reducing tailpipe emissions decades ago. (70 and 113)

680. COMMENT: In 2003, the Legislature invoked the State's authority pursuant to the Federal Clean Air Act and formally adopted the California Low Emission Vehicle program in the State, specifically providing for the Department to apply the California emissions program to all new passenger vehicles and light duty trucks sold in New Jersey on or after January 1, 2009. See P.L. 2003, c. 266 (N.J.S.A. 26:2C-8.15 et seq.). However, this law defines the "California Low Emission Vehicle program" as the "second phase of the low emission program being implemented in" California. The ACC II program is substantially and substantively different from the program authorized by the New Jersey Legislature. The program adopted by the Legislature envisioned a lower emission ICE vehicle along with a small EV (or ZEV) mandate. It is the program currently in place today. The Legislature did not know and could not contemplate that the California program would be supplanted by the ACC II, which totally changed its emphasis from low emissions ICE vehicles to one that seeks to ban ICE vehicles. Therefore, the adoption of these rules was not authorized by the Legislature and, thus, the Department is obligated to go to the Legislature, as it did in 2003, for authorization to adopt ACC II. Even if the Department is found to have authority to adopt ACC II, it is clear that the rules are not consistent with legislative intent when they authorized the California program in 2003. The Department should seek approval from the Legislature before adopting the rules. (113)

681. COMMENT: In 2003, the Legislature passed the California car mandate and gave the executive the authority to adopt a ZEV mandate. In a breathtaking delegation of legislative

authority, the Department was not required to follow the APA. In 2013, the Legislature repealed that provision of the law. This is the established law in New Jersey. (168)

682. COMMENT: Adoption of the ACC II program would continue to improperly and illegally delegate significant New Jersey policy decisions to another state, with different demographics, different geographies, different economic issues, and different policy concerns. If the rules are not adopted, the State is subject to the EPA rules. Although there are concerns about the EPA rules as well, the Federal government is part of the nation's constitutionally created system with supremacy over state actions in many areas, especially as it relates to commerce. Most states, comprising 60 percent of cars sold in the United States, are regulated by the EPA rules for cars and light duty trucks. There are checks on the system and it is part of a national system. The same cannot be said for California, which is a separate sovereign state and often an outlier in policy issues. California does not value manufacturing or business and has higher taxes, higher utility rates, and the highest gasoline and fuel prices in the country. Although California's rules are out of the State's control, New Jersey nevertheless would be obligated to follow them through the ACC II rules, which appears to be an unlawful delegation of authority to another state. California's rules are set up to benefit California at the expense of the Section 177 states. New Jersey cannot predict how ACC II will play out and who will benefit and who will not. By opting into the California program, the Department is opting into any changes they make in the future, even if New Jersey would be harmed or would object. (113)

683. COMMENT: The Department proposes to adopt the current California ACC II rule by reference with only minor cosmetic changes. Importantly, the rulemaking dictates that "all amendments, supplements, repeals, or other changes to those provisions that California makes to

the incorporated rule shall also be effective in New Jersey on the effective date cited by California." This is particularly concerning because future revisions will have limited review and analysis. New Jersey should establish its own policy direction, and not hand over current and future policy decisions to another jurisdiction. (647)

684. COMMENT: New Jersey should retain jurisdiction over its policies to address its air quality rather than incorporate by reference California standards. As stated in the proposal, this would render any future amendments made to those specific sections of the California Code of Regulations that were incorporated by reference to be automatically applied in New Jersey. In essence, New Jersey would be ceding its authority to California, which could create a situation where regulated entities in New Jersey may not receive notice with regard to (or an opportunity to review and comment on) future changes to the regulations. (251)

685. COMMENT: The proposed changes at N.J.A.C. 7:27-29A.7(b), while being an efficient method of rule change for the Department, nevertheless violate the New Jersey State Constitution. This specific regulation violates the sovereignty of the State of New Jersey and cedes New Jersey sovereignty to the state of California. Prospective incorporation directly violates the Article II election clause of the State's constitution because New Jersey citizens cannot participate in electing the California Governor, California Legislators, or participate in California propositions. Further, prospective incorporation violates Article V, Section IV, paragraph six of the State's constitution, which requires agency rulemaking activities, including rule revisions to follow New Jersey's Administrative Procedures Act. The rulemaking should be withdrawn because it is unconstitutional. (317)

686. COMMENT: Pursuant to N.J.A.C. 1:30-2.2, in order to incorporate by reference, the

source material must be one of the listed sources in the subchapter or be a source approved by the Director of the Office of Administrative Law and the Chief Administrative Law Judge of the Office of Administrative Law, as defined at N.J.A.C. 1:1-2.1. As the California regulation is not one of the listed sources in the subchapter, the Department should explain whether it obtained approval to incorporate by reference, the California ACC II regulatory waiver, notes, comments, appendices, diagrams, tables, forms, figures, publications, and cross-references as supplemented or amended. The Department should also explain where a concerned citizen may review the approval that the Department previously obtained from the Director to incorporate the ACC II and all of the supporting documents into this rule proposal. If the Department has not obtained approval from the Director of the Office of Administrative Law, then this rule proposal should be withdrawn because it violates the New Jersey Administrative Procedures Act. (317)

687. COMMENT: Pursuant to N.J.A.C. 1:30-2.2(b), any section of a source incorporated by reference shall be made available for public inspection by the adopting agency. The Department has not made available for public inspection the incorporated CCR, California Vehicle Code, notes, comments, appendices, diagrams, tables, forms, figures, publications, and cross-references the Department relied upon to develop this rulemaking. Further, the rules do not include language as to where and how a copy of the sections of the CCR, California vehicle code, and all supporting documents can be obtained pursuant to N.J.A.C. 1:30-2.2(c)2. By not including language about the availability or making available for public inspection the California regulations and all supporting documentation either in an appendix to this rulemaking or on the Department's website, the rulemaking violates the New Jersey Administrative Procedures Act and should be withdrawn. (317)

RESPONSE TO COMMENTS 675 THROUGH 687: New Jersey's Air Pollution Control Act gives the Department broad authority to promulgate rules "preventing, controlling and prohibiting air pollution throughout the State," including air contaminants from motor vehicles. N.J.S.A. 26:2C-8 and 8.1. The statute defines "air pollution" to include "the presence in the outdoor atmosphere of one or more air contaminants in such quantities and duration as are, or tend to be, injurious to human health or welfare, animal or plant life …" N.J.S.A. 26:2C-2. The GWRA finds and declares that greenhouse gases "increase temperatures in the atmosphere" and that "if steps are not taken to reverse these trends, the effects on human, animal and plant life on Earth may be catastrophic." N.J.S.A. 26:2C-38. The Legislature further declares that a comprehensive strategy to reduce greenhouse gas emissions 80 percent below the 2006 level by the year 2050 is in the public interest. N.J.S.A. 26:2C-38. Likewise, the GWRA declares that the State should implement cost-effective measures to reduce emissions of greenhouse gases. N.J.S.A. 26:2C-45. As noted in the notice of proposal, the purpose of the Department's adopted rules is to reduce emissions of air pollution that is injurious to human, animal, and plant life – namely, NO_x and PM2.5, and greenhouse gases. See 55 N.J.R. at 1780. Thus, the Department has legislative authority to incorporate by reference California's ACC II regulation.

As discussed in the Response to Comments 533 through 607, the EPA, CARB, and the states that have adopted California's motor vehicle standards have been adopting emission standards for decades. Pursuant to the Clean Air Act (CAA), New Jersey has only two options for vehicle emissions standards: compliance with the Federal standards or compliance with the California standards. Section 177 of the Clean Air Act (CAA) provides that "any State which has plan provisions approved under [Part D of Subchapter I of the Act] may adopt and enforce for

any model year standards relating to the control of emissions from new motor vehicles ...” 42 U.S.C. § 7507. The threshold requirement of Section 177 is that a state “has plan provisions approved under this part [D].” Such approved plan provisions are not limited to states with nonattainment plans (Section 172) but include, for example, states that have achieved attainment but have approved maintenance plans (Section 175A) or have other approved plan provisions related to their being within the Ozone Transport Region (Section 184). Once the threshold is met, the CAA plainly gives states the discretionary authority to determine what California “standards relating to the control of emissions from new motor vehicles” to adopt, subject only to the identicality and lead time requirements. This authority is granted directly and exclusively to states. New Jersey has nonattainment and maintenance plan provisions approved by the EPA. The Department is also complying with the identicality requirement of Section 177 of the CAA, which is intended to prevent states that adopt a California vehicle emission standard from requiring or causing a manufacturer to create a motor vehicle or engine that is different than the motor vehicle or engine certified in California under the California standard, as well as the two-year lead time requirement.

As discussed in greater detail in the Response to Comment 690, the APA sets forth public notice and comment procedures before an agency adopts any rule. N.J.S.A. 52:14B-1 et seq. The Department has followed the APA requirements in adopting these rules. The Department is, therefore, authorized to adopt California’s ACC II regulation pursuant to State law, Section 177 of the CAA, and the APA.

The Office of Administrative Law’s (OAL) Rules for Agency Rulemaking allow an agency to incorporate sections of sources by reference, which may include future supplements

and amendments. See N.J.A.C. 1:30-2.2. By including the prospective incorporation by reference provision at N.J.A.C. 7:27-29A.7, the Department is ensuring that the ACC II rules, incorporated by reference with future supplements and amendments, remain consistent with the relevant CCR provisions and, thus, consistent with the Federal Clean Air Act. The Department has, on numerous occasions, incorporated the regulations of another state into its rules. For example, see N.J.A.C. 7:27-28A, Model Year 2027 or Later Heavy-Duty New Engine and Vehicle Standards and Requirements and N.J.A.C. 7:27-31, Advanced Clean Trucks Program.

It is true that an agency that incorporates an authority by reference must provide language advising "[w]here and how a copy of the section may be obtained." N.J.A.C. 1:30-2.2(c)2. The Department provided the citation to a duly promulgated California regulation and Motor Vehicle Code, both of which are publicly available. Accordingly, the Department met the regulatory requirement.

Major Questions Doctrine

688. COMMENT: The Department should withdraw this rulemaking because it violates the major questions doctrine test established by the United States Supreme Court in the recent *West Virginia et al. v. Environmental Protection Agency et al*., 142 *S. Ct.* 2587, 57 *U.S.* ____ (2022), decision. The Court ruled that under the major questions doctrine, the EPA did not have the authority to force stationary sources of air pollution to use generation shifting to fight climate change under Section 111(d) of the Clean Air Act. In the Department's proposal, generation shifting (shifting emissions from the tailpipe to the electrical grid) is being proposed for mobile sources by banning the sale of fossil fueled internal combustion engines and piggybacking on an obscure provision of the CAA that allows California to propose stricter mobile source emissions

than the national standards. Congress included the California waiver in the CAA because they recognized that due to the unique topography of mountains and sea, California would need additional tools to attain the air quality standards for smog that national emission standards could not do. Congress surely did not at the time envision that this provision would be used by other state governments to ban the sale of fossil fuel automobiles to fight climate change. This rulemaking will be found unconstitutional because it imposes vast changes on society through the rule making process rather than the legislative process. (317)

689. COMMENT: Please explain how New Jersey will follow the U.S. Supreme Court decision in *West Virginia et al. v. Environmental Protection Agency et al*., 142 *S. Ct*. 2587, 57 *U.S.* ____ (2022), decided June 30, 2022. (44)

RESPONSE TO COMMENTS 688 AND 689: In *West Virginia*, the Supreme Court concluded that the EPA had asserted "extravagant" authority to shift electricity generation from regulated, existing fossil-fueled plants to new wind and solar plants, based on "the vague language of an ancillary provision … that was designed to function as a gap filler and had rarely been used in the preceding decades." 142 *S.Ct*. at 2609-10. By contrast, as explained in the Response to Comments 533 through 607 and the Response to Comments 675 through 687, the EPA, CARB, and the Section 177 states that have adopted California's motor vehicle standards have been adopting emission standards for decades pursuant to clear Congressional authority. The ACC II rules do not ban ICE vehicles, nor do they shift generation. Rather, the rules regulate emissions of classes of new motor vehicles based on evolving technology, consistent with California's and the Section 177 states' long-standing authority pursuant to the Clean Air Act.

Administrative Procedure Act

General

690. COMMENT: Establishing California's ACC II program in New Jersey by incorporating California's regulations by reference is wrong and inconsistent with the Administrative Procedures Act (APA). Incorporating another state's rule by reference deprives the public in New Jersey of the right to provide input and the opportunity to comment. Most likely no one in New Jersey was involved in California's rulemaking procedure. (319 and 499)

RESPONSE: The APA sets forth public notice and comment procedures before an agency adopts any rule. N.J.S.A. 52:14B-1 et seq. The Department followed the APA requirements by providing a 60-day comment period on the notice of proposal to adopt the ACC II rules by incorporating by reference the applicable provisions of the California Code. The notice included a Summary and explanation of the proposed rules, the rules proposed to be adopted, the specific legal authority pursuant to which the adoption is authorized, and the required descriptions of the expected impacts. See N.J.S.A. 52:14B-4. The Department held a public hearing after providing the public with 30 days' notice of the hearing date and accepted written comments as well, and through this adoption document is responding to all comments received. The Department, therefore, complied with the APA requirements for rulemaking. See also the Response to Comments 675 through 687 for a discussion of incorporation by reference.

Agriculture Industry Impact Statement

691. COMMENT: The impact statement on agriculture excluded an important impediment of the rule, which is the economic impact on the industry due to increased operating cost. The possible

benefits from a mandate for EVs by 2035 only in New Jersey, and not in the entire region or country, will have little to no impact on the local climate. However, the rule will have an immediate economic impact on farmers when the rules are implemented. Agriculturalists acknowledge weather as an obstacle to production and farmers have continued to adapt practices since the beginning of domestication of animals and cultivation of plants to improve conditions for crops and livestock. Weather changes are not a new issue for the farming community. The problem with the ACC II rules is a mandate that will have a significant impact with little time for agriculture adapt. The proposed regulations will disproportionately affect farmers compared to other industries who use vehicles year-round while many farmers have seasonal operations and may infrequently utilize some vehicles. Farms are dependent on used trucks and trucks that last for many years since many will use vehicles only during the growing season. This fact gives feasibility to request an exemption from the proposed rules for agriculture, similar to precedent rules that help farmers remain viable in New Jersey. (241)

RESPONSE: Pursuant to the requirements of the APA, the Department conducted an agriculture industry impact analysis "setting forth the nature and extent of the impact of the proposed rule on the agriculture industry." N.J.A.C. 1:30-5.1(c)6. The Department included a discussion of the impacts of climate change on the industry as part of the agriculture industry impact (55 N.J.R. at 1789) and the social impact (55 N.J.R. at 1781) included in the notice of proposal. Further, the issue of economic impact on consumers, as it relates to the adopted rules, was thoroughly addressed in the economic impact provision of the notice of proposal. See 55 N.J.R. at 1784. ACC II applies only to the purchase of new light duty vehicles and does not require anyone, including farmers, to stop using an existing ICE vehicle or affect any heavy-duty ICE vehicles or

other gasoline or diesel fueled farm machinery. Further, the Department expects the used ICE vehicles that the farming community tends to rely on will remain available for years to come. As noted in the Response to Comments 532 through 548, the used vehicle market is an interstate market, which helps to equilibrate used vehicle prices across the country. In short, the Department anticipates that used ICE vehicles will remain available until such time as the economies of scale and technology advance to ensure that the farm community can purchase ZEVs that meet their operational needs in the used and new vehicle market.

Housing Affordability Impact Statement

692. COMMENT: The Department has not considered that the cost of electricity is part of housing costs in the State. The Department only addresses the increased cost associated with installing an EV charger in a person's home and does not discuss how the increase in utility rates will impact housing affordability. The proposed rules have the potential to have a major ripple effect on the cost of housing and these statements are short-sighted since they do not account for the inextricable link between the cost of utilities and housing affordability. If there is no legislation or other policy plan to offset the inevitable increase in electric rates for homeowners and renters, which will be associated with the increased adoption of EVs and associated electric grid upgrades, this cost will alter what type of housing is affordable to some, particularly those who earn a lower income. Lower income ratepayers pay a greater percentage of their income toward utility bills, and mandating EVs in the State will have a definitive impact on the type of housing they will be able to afford. The Department is turning a blind eye to this issue when it stated that there is no significant impact on housing affordability aside from the cost of a ratepayer-subsidized EV charger. (394)

RESPONSE: As noted, the Department included the cost of charging infrastructure in its housing affordability impact analysis. See 55 N.J.R. at 1789. The Department did not include the cost of the electricity needed to charge a vehicle because that is not a housing cost, it is a transportation cost. The costs to charge ZEVs were considered as part of the total cost of ownership (TCO) and accounted for in the economic impacts.

To the extent that commenters argue that electric rates should be included as part of a housing affordability analysis, BPU, not the Department, is responsible for the equitable distribution of utility rates between classes of ratepayers.

Economic and Social Impact Statements

693. COMMENT: The Department did not consider the full scope of material facts and provide an accurate description of the potential economic impacts on New Jersey residents. For example, EV charging stations will also likely be assessed what is known as Demand Charges. These are additional charges assessed by the electric distribution companies to large energy users who use a greater amount of energy during peak hours. EV charging companies have lobbied to forego or reduce these charges assessed by the electric distribution companies (EDCs). If they were successful in reducing or waiving Demand Charges, Demand Charges would not disappear; rather, it would require all ratepayers to subsidize the Demand Charges, regardless of whether they use EV charging. If Demand Charges are subsidized by all ratepayers, this will result in an additional increase to utility bills. The Department cannot adequately discuss the economic impact of EVs without acknowledging the increase to utility bills associated with infrastructure upgrades and the potential for subsidization for Demand Charges.

This analysis of potential for electric rate increases is notably missing from the Department's "Indirect Economic Impacts" to Consumers. In this section, the Department has only taken into account those consumers who purchase EVs. The rules will also impact consumers who do not purchase EVs since there will be corresponding increases to electric rates to account for any ratepayer subsidization of the electric grid, EV charging infrastructure, EV charging, and EV purchasing. All costs associated with utility upgrades to the electric grid will ultimately be borne by New Jersey ratepayers. In its Social Impact statement, the Department references the need for the State to "monitor[] potential ratepayer impact for any upgrades or buildout needed." 55 N.J.R. at 1782-83. Yet, no further details or an estimated economic impact are offered. Most importantly, the Department does not state that it is anticipated that electric rates will increase, and in fact have already increased, in order to fund the referenced upgrades and buildout. All infrastructure upgrades will in fact result in an increase to electric rates. The impact statement is predominantly silent on the financial costs and impact of EVs and the necessary electric infrastructure to make the transition to EVs a reality. Therefore, the Department did not consider the full scope of material facts and provide an accurate description of the potential social impacts on New Jersey residents.

Rate Counsel has recommended in other proceedings related to EV rates that the BPU require EDCs to adopt an "EV Tariff" which would ensure that those who utilize the electric grid for EV charging also pay for most, if not all, of the upgrades and demand charges that are necessary for that charging. Before adopting these rules, the Department should work with other State agencies, including the BPU, to minimize the economic impact of EV charging and purchases to consumers who do not own, lease or drive an EV.

The Department also suggests that the cost of driving an ICE will increase in the coming years in comparison to the costs associated with driving an EV. Yet, this analysis does not take into consideration that the cost of electricity will increase in order to accommodate EV-related subsidization and infrastructure upgrades. (394)

694. COMMENT: The rulemaking would ban the fossil fuel vehicles that consumers overwhelmingly now choose, mandating that they buy an electric vehicle if they ever want a new car. But it assumes that this mandate will impose no costs on consumers because although it admits increased costs to manufacturers will be passed on to consumers in the form of higher price, it argues that "[c]onsumers of battery electric vehicles are likely to see a cost savings over a 10-year cost of ownership period." This assumption runs counter to the best evidence on calculating the cost of consumer mandates. If an electric vehicle is equivalent to a gasoline-fueled vehicle alternative, and it costs less over a 10-year ownership period, consumers would choose the electric vehicle without any mandate. Research shows that consumers consider long-term costs when purchasing vehicles and generally give those long-term costs full, or nearly full weight. (Allcott, 2014; Busse, 2013). So, if electric vehicles are equivalent and provide a lower long-term cost of ownership, no mandate is necessary because consumers will purchase them to benefit from their lower cost. (Allcott & Sunstein, 2015). The rulemaking acknowledges that the rules will fail unless consumers in New Jersey embrace ZEVs on a much larger scale than they have to date and at an accelerated pace. But the rulemaking fails to explain how taking popular choices away from consumers could possibly help them, and imposes new risks on them that electric vehicles could cost substantially more or otherwise not meet consumer needs. (139)

695. COMMENT: The Department should be acting to protect the environment, rather than

contemplating bans that will reduce residents' quality of life, freedom, and prosperity. The rules could certainly stand to undergo to a cost benefit analysis before it upends the daily life of every person in New Jersey. (124)

RESPONSE TO COMMENTS 693, 694, AND 695: Pursuant to the requirements of the APA, the Department conducted a social and economic impact analysis that "describes the expected social impact of the proposed rulemaking on the public, particularly on any segments of the public proposed to be regulated, and including any proposed or expected differential impact on different segments of the public" and "describes the expected costs, revenues, and other economic impact upon governmental bodies of the State, and particularly any segments of the public proposed to be regulated." N.J.A.C. 1:30-5.1(c). Generally speaking, the Department relied on the regulatory analysis and a number of the assumptions made by CARB. However, the Department did not do so indiscriminately. As discussed in the Response to Comments 671, 672, 673, and 674, the Department reviewed CARB's robust analysis and assumptions, and adjusted its analysis for New Jersey. Projections about future costs (that is, batteries, metals, electricity) and behavior (that is, the pace of ZEV sales) are, by definition, a forecast of the impacts of the rules based upon the best information currently available.

The Department recognizes that electricity rates may be impacted by the rules. And as discussed more thoroughly in the Response to Comments 420 through 465, the exact impacts felt by ratepayers are difficult to determine and depend on a number of inter-related factors, including ZEV owner behavior, the current state of capital investments by utilities, and the ebbs and flows of the overall global energy market. Electric rates could increase or decrease for any number of reasons in the future as many market factors play a role in rates.

As required by the APA, the Department has provided commenters with the opportunity to provide feedback and critiques of its analysis. The Department carefully considered the feedback and critiques, as is the purpose of a comment period, and is satisfied that the analyses conducted by the Department provided a reasonable forecast of the costs and benefits.

Regulatory Flexibility Statement

696. COMMENT: The Regulatory Flexibility Statement only states that there is no vehicle manufacturer that will be impacted since they do not have fewer than 100 employees. This is an incorrect and incomplete analysis of the impact to small businesses since it does not take into account that small businesses may be more negatively impacted by an increase in electricity costs than larger businesses. As utility rates rise to accommodate greater electric grid buildout and potentially even a subsidization of Demand Charges associated with EV charging, this will impact the expenses for small businesses. As utility costs rise, small businesses will be the first to experience a financial hardship and potentially go elsewhere for lower overhead costs. The Department must include this as part of its analysis regarding impacts to small businesses. (394)

RESPONSE: Pursuant to the requirements of the APA, the Department conducted a regulatory flexibility analysis that provided a reasonable forecast of the direct impacts of these rules on small businesses in the State. As set forth in the Response to Comments 420 through 465 and the Response to Comments 693, 694, and 695, electric rates could increase or decrease for any number of reasons in the future as many market factors play a role; the exact impacts felt by ratepayers, including small businesses, are difficult to determine and depend on a number of

inter-related factors, including ZEV owner behavior, the current state of capital investments by utilities, and the ebbs and flows of the overall global energy market.

Also, any requests for rate increases as a result of investments in EV infrastructure would be phased in over time with other costs. Ultimately though, it is the purview of BPU, not the Department, to ensure equitable distribution of rates among various classes of ratepayers.

Federal Standards Statement

697. COMMENT: The Department has not provided the statutorily required Federal Standards Statement analysis for the ACC II proposal. Instead, it obfuscates that a Federally approved California waiver that New Jersey can voluntarily adopt is somehow a Federally approved standard. It is not a Federal standard for the purpose of the New Jersey statutes. The Department also has not included the required jobs analysis, again obfuscating with unrelated greenhouse gas job studies. The Department must determine an estimate of how many jobs will be gained or lost as a result of the adoption of this rulemaking as is required by State statute. (317)

RESPONSE: As explained in the notice of proposal, the CAA (a Federal statute), grants the State of California the authority to adopt stricter emission standards than the national standards set by the EPA, so long as California obtains a waiver from the EPA. As the adopted rules will not be enforceable until the EPA (a Federal agency) approves the standard, it is a Federal standard for purposes of the requirement at N.J.S.A. 52:14B-1 et seq. Although the Department determined a Federal standards analysis was not necessary, the Department explained in the notice of proposal that the ACC II program (as proposed) would be more strict than the EPA's current multi-pollutant emission standard. Therefore, the Department included the Federal standards analysis

that would have been required pursuant to N.J.S.A. 52:14B-1 et seq., had the ACC II rules exceeded a Federal standard or requirement. 55 N.J.R. at 1787-88.

Pursuant to the requirements of the APA, the Department conducted a Jobs Impact analysis that provided a reasonable forecast of the impact of the rules on employment in the State. 55 N.J.R. at 1788-89. The Department forecast job losses, mainly in the vehicle repair and maintenance industry, as well as retail gasoline sales. However, those job losses are forecast to be offset by other industries that will see employment gains. Industries that will experience growth over the next 10 years include those providing charging infrastructure, the electric power, and clean vehicle technology (parts). As required by the APA, the Department has provided commenters with the opportunity to provide feedback and critiques of its analysis. After careful consideration of the feedback, as is the purpose of a comment period, the Department is satisfied that it provided a reasonable forecast of the job impacts, particularly given the economic variability involved.

Commerce Clause

698. COMMENT: Prohibiting the registration in New Jersey of a new vehicle purchased out-of-State appears to conflict with and violate the Commerce Clause. (319 and 499)

699. COMMENT: The Administration's statement that people "can go to another state" to buy an ICE vehicle is an insult to New Jersey residents and businesses. There is also the question of the legality of that statement. After 2035, when new ICE vehicles cannot be delivered for sale in New Jersey, can a person go out-of-State, buy a new ICE vehicle, and register it in New Jersey?

If the Department's position is that the new ICE vehicle cannot be registered in New Jersey, there could be a constitutional commerce clause issue. (113)

700. COMMENT: The Department cannot effectively ban out-of-State purchases because of the Interstate Commerce Clause. (219)

701. COMMENT: Americans have the right to travel freely without interference from the Government. The Department must demonstrate how the electric vehicle legislation will not violate interstate commerce. (44)

RESPONSE TO COMMENTS 698, 699, 700, AND 701: As explained in the Response to Comments 466 through 511, pursuant to N.J.A.C. 7:27A-29A.3(a), all new light-duty vehicles registered in New Jersey are required to be CARB-certified regardless of where they are purchased. A new vehicle purchased out-of-State may be registered in the State if is certified by CARB. The Clean Air Act authorizes California to enact stricter emission control standards for certain new motor vehicles and new motor vehicle engines, if California receives a waiver from the EPA. 42 U.S.C. § 7543. As explained in the notice of proposal (55 N.J.R. at 1774), the Clean Air Act also authorizes qualifying states like New Jersey to adopt and enforce the same emission control standards for which California has received a waiver. 42 U.S.C. § 7507. When Congress, specifically, authorizes state action, it is not subject to the Commerce Clause.

See the Response to Comments 720 and 721 regarding registration.

Antitrust

702. COMMENT: When organizations agree to work together to punish disfavored views or industries, or to otherwise advance environmental, social and governance goals, the coordinated behavior may violate antitrust laws and harm American consumers. (109)

RESPONSE: As explained in the notice of proposal (for example, 55 N.J.R. at 1774) and Response to Comments 675 through 687, the Clean Air Act authorizes qualifying states, like New Jersey, to adopt and enforce the same emission control standards for which California has received a waiver. To the extent that the commenter asserts that adopting the ACC II rules may violate the Sherman Act, state regulations are exempted from the Sherman Act under the state actions doctrine. Therefore, the Department does not believe adopting ACC II violates antitrust laws. As explained in the Response to Comments 289 through 419 and the Response to Comments 533 through 607, the ACC II rules are not expected to harm New Jersey consumers but rather, to spur innovation, provide more choice to consumers, and lower costs due to technology advances and economies of scale.

World Trade Organization

703. COMMENT: Thailand reviewed the World Trade Organization notification by the United States of the rulemaking. The ACC II rules may not be based on international standards for enforcement, which could result in trade barriers between countries. The pollution is not only from the tailpipe but pollution starting from the electricity production process used in electric vehicles should be considered. It is important to consider pollution from the entire lifecycle of electric vehicles, including the manufacturing process, for comprehensive evaluation. (311)

RESPONSE: As explained in the Response to Comments 553 through 607 and the Response to Comments 675 through 687, the EPA, CARB, and states that have adopted California's motor vehicle standards have been adopting emission standards for decades; New Jersey is authorized to opt in to California's ACC II program. As explained in the Response to Comments 259

through 283, the Department expects significant net emissions reduction benefit when considering well-to-wheels emissions.

Direct Sales

704. COMMENT: To encourage New Jersey residents to purchase EVs and increase transportation innovation and consumer choice, the State needs to facilitate EV market growth and remove unnecessary barriers to successful implementation of ACC II. One such barrier is prohibiting the direct sale of EVs, which may force customers to go through additional hurdles to purchase, register, and obtain their vehicle if sold online from a licensed location out-of-State. The State is strongly urged to permit direct-to-consumer vehicle sales by manufacturers that have not previously offered a dealership franchise. (671)

RESPONSE: In New Jersey, all automotive manufacturers are subject to the Franchise Practices Act (FPA), which requires auto manufacturers to distribute their new motor vehicles through dealerships. See N.J.S.A. 56:10-1 et seq. Although the FPA generally prohibits manufacturers from selling a new motor vehicle directly to a consumer, direct sale by a manufacturer of only zero emission vehicles is permitted if certain conditions and requirements set forth in the statute are met. See N.J.S.A. 56:10-27 and 27.1. Any changes to the FPA require legislative action and are outside the scope of this rulemaking.

Mid-Term Review

705. COMMENT: The Department should incorporate a mid-term review mechanism into the regulatory framework. This mid-term review would serve as an essential tool for evaluating the

effectiveness of ACC II and allow for a thoughtful reassessment of its implications for New Jersey's environmental goals, economic landscape, and the welfare of its residents. The review is essential to assess whether emission reductions are being achieved, enable adjustments based on environmental and technological changes, facilitate a comprehensive cost-benefit analysis, and compare the Federal rules to ACC II to determine which is the most beneficial. (3)

706. COMMENT: If New Jersey will not withdraw the notice of proposal, then the proposal should be amended to require a mid-term review to assess progress and revisit whether the costs of sticking with ACC II outweigh the benefits of reverting to an increasingly stringent Federal Clean Car rule. (1 and 9)

707. COMMENT: To meet the pragmatic timeline in transitioning an entire gas infrastructure to accommodate for EVs while trying to address the concerns of climate change, President Biden signed Executive Order No. 14037, which sets a goal that 50 percent of all new cars and passenger trucks sold in 2030 be zero-emission vehicles. It would be wise for New Jersey to either commit to a mid-term review of ACC II, where progress could be assessed and the question of adhering to ACC II or reverting to the Federal Clean Car rule would be advisable. Without forgetting the detrimental impact of the carbon emissions that gas-powered vehicles cause, the Administration would be prudent to reconsider this mandate. New Jersey should implement a plan that protects both the environment and the consumer. (8)

708. COMMENT: If the Department decides not to analyze the Federal Clean Car rule and publish the results before adopting the ACC II rules, the Department should commit to a mid-term review in 2026 and written report with specific recommendations based on an assessment of ACC II compliance, the State's ability to achieve the levels of ZEV sales mandated pursuant to

the California rule and a follow up comparison of the ACC II rule versus the new, more stringent Federal Clean Car rule. The report would make recommendations to the Legislature and new governor about what must be done to comply or whether reverting to the Federal program would better serve the shared goals of transitioning to a zero-emission future. A mid-term review mechanism would not change the standards for or compliance with ACC II. Therefore, it would not be inconsistent with the requirements of Section 177 states. It would however allow the State a mid-term review opportunity of its own, based on real conditions in the State to determine if ACC II works for New Jersey consumers, residents, and businesses. As the Federal rules increase stringency, the balance between costs and benefits of implementing ACC II in New Jersey will shift. Precedent for such a review mechanism in New Jersey previously existed under the original New Jersey Clean Car law. The Legislature repealed N.J.S.A. 26:2C-8.19 after Governor's McGreevey, Codey, Corzine, and Christie failed to ever appoint the 15-member Low Emission Vehicle Review Commission which, among other things, was to evaluate New Jersey's continued participation as a California Low Emission Vehicle (CALEV) state. Membership representation included the Assembly, Senate, academic, and business leaders. A similar commission should be established as part of ACC II and that Department should commit to a mid-term review in 2026 with a formal structure to facilitate stakeholder engagement. (27)

709. COMMENT: The proposed manufacturer mandates for ZEV, with limited options for plug-in hybrid vehicles (PHEVs), could result in unintended consequences. There is uncertainty on whether the State's electricity system (generation, grid and storage, recharging infrastructure) can be expanded to support the ZEV growth rate. Further, there is uncertainty in what future retail electricity prices will be for ZEVs. There is also uncertainty on future pricing and

availability of BEVs. These implementation uncertainties could lead to increased risk of program failure and/or higher costs for New Jersey consumers. The Department should add required routine program reviews to the proposed regulations with metrics that would trigger program adjustments if markets do not develop as expected. The following metrics should be included in the regulation and trigger program adjustments as warranted: ZEV sales; ZEV vs. ICE vehicle price; battery metals supply; electricity system expansion (generation, storage, grid, recharging); electricity price to consumers, including transparency on the increase in price resulting from ZEV power demand; and fueling/charging infrastructure. (647)

710. COMMENT: The Department seems to recognize several realities in its notice of proposal but does not discuss a backup plan for when its optimistic viewpoint does not come to fruition. With all the interdependent moving parts that comprise this transition, mess and expense is certain to follow. The Department should learn a lesson from the State's offshore wind projects to generate green electricity. Expenses have increased dramatically, the supplier is threatening to back out of the project, and public support has drastically changed for the worse. The Department should publish a backup plan in the rules, unless the Department's plan is to throw ACC II at the wall and see if it sticks. (118)

RESPONSE TO COMMENTS 705 THROUGH 710: As explained in the Response to Comments 662 through 670, the Department recognizes the potential benefits of a national program and supports the Federal government's efforts to impose more stringent multi-pollutant exhaust emissions standards for light-duty and medium-duty vehicles. See 88 FR 29184 (May 5, 2023). At the time of this adoption, however, the EPA has not adopted final regulations and the

Department has determined to move forward with the ACC II rules to obtain the emissions and health benefits expected to result.

The Department will continue to monitor the EPA's rulemaking and review applicable Federal standards when adopted. The Department will also continue to monitor updates to CARB's ACC II rulemaking, which are not enforceable until after California receives a waiver from the EPA, and will continue to evaluate the benefits and costs of the ACC II rules for New Jersey and the challenges and successes of implementation in the state. Even without a mid-term review mechanism in the rules, the Department may repeal or amend the rules, subject to the Clean Air Act's identicality requirement, in accordance with the APA.

State Vehicles

711. COMMENT: The Department should not adopt the rules, since the government has not yet banned the purchase of ICE vehicles within its fleets. Some commenters cite specific concerns ranging from the recent purchase of ICE vehicles for the Governor's Office to a perceived exemption for government vehicles. (92, 207, 255, 276, 319, 412, 425, 499, 551, and 698)

712. COMMENT: The State Police determined that the best way to protect the Governor is to have him ride around in a brand new big black SUV with an internal combustion engine. However, the Governor has determined that the best way to protect the 9.2 million residents of the State is to ride in an EV. Until the Governor recognizes that the safety of 9.2 million of us are as important as his own, the rule should be withdrawn. (168)

713. COMMENT: The State should lead by example and practice. Before adopting this mandate, the State should first change its fleet of cars and light trucks, thereby learning and developing the necessary infrastructure to electrify and charge a large number of vehicles. (319 and 499)

714. COMMENT: State official vehicles should follow the mandate and lead by example. (181 and 380)

715. COMMENT: Raising consumer awareness for success of the program can happen in many ways. For example, public and workplace chargers and hydrogen stations are an excellent means of raising consumer awareness. State and local fleet purchases of EVs also substantially raise awareness, particularly if these vehicles are used in high visible areas, such as Department of Transportation road crews, police, and fire. Additionally, State-led programs may also be necessary to support the ZEV requirements. (457-1)

716. COMMENT: EVs are not convenient for everyone, including the Department whose vehicle fleet is primarily ICE and whose employees do not have access to sufficient charging stations. But EVs will be mandated for the rest of us under the proposed rule. (113)

717. COMMENT: The vast majority of consumers have little understanding about the capabilities and advantages of EVs, the wide range of available models, and the nature of the charging experience. Effective strategies will build consumer awareness and interest in EVs. (202)

718. COMMENT: Before mandating EVs, all State, county, and municipal vehicles should have converted to EVs to as an example to the motoring public. (374)

719. COMMENT: State, county, and local vehicles should not be exempt from the rules. (544)

RESPONSE TO COMMENTS 711 THROUGH 719: As the Department explained in the notice of proposal, State and local governments are also consumers of vehicles. 55 N.J.R. at 1784. As such, government agencies will also continue to transition their fleets to ZEVs consistent with the goals of N.J.S.A. 48:25-3.

Specific Provisions

Registration

720. COMMENT: The proposed rules at N.J.A.C. 7:27-28A.3(a) would prohibit the registration of new ICE vehicles after 2035, in contrast to statements made by the Governor and representatives of the Governor's Office that the rules would prohibit the sale of new ICE vehicles in New Jersey. The Department must correct this error by amending the rules on adoption to prohibit the sale or purchase of new ICE vehicles in New Jersey or by re-proposing the rules. (168)

721. COMMENT: For individuals who purchase ICE vehicles out-of-State, will they be able to register the vehicle in New Jersey? (181 and, 412)

RESPONSE TO COMMENTS 720 AND 721: The APA and implementing rules require an agency to provide notice of proposed rulemaking. See generally N.J.S.A. 52:14B-1 et seq.; N.J.A.C. 1:30-1. The OAL rules specify the requirements for a notice of proposal. N.J.A.C. 1:30-5.1. The notice of proposal clearly explains that the portion of the ACC II rules concerning the annual ZEV requirement is an obligation that must be met by manufacturers of passenger cars and light-duty trucks. 55 N.J.R. at 1774-75. The notice of proposal also sets forth the text of the rules as proposed and now adopted. N.J.A.C. 7:27-29A.3(a) as proposed and adopted states that

"[e]xcept as set forth at (b) and (c) below, on or after January 1, 2027, no person who is a resident of this State, shall sell, lease, import, deliver, purchase, acquire, register, receive, or otherwise transfer in this State, or offer for sale, lease, or rental in this State, a new 2027 or subsequent model-year passenger car, light-duty truck, or medium-duty vehicle, unless the vehicle has been certified by CARB."

N.J.A.C. 7:27-29A.3(a) does limit the registration in New Jersey for new, model year 2027 or subsequent new model year vehicles to only those vehicles that are CARB-certified. That is not the same as prohibiting the registration of new ICE vehicles beginning with model year 2035. As explained more thoroughly in the Response to Comments 16 through 44, it is theoretically possible that one or more manufacturers would have enough vehicle values banked to continue producing a small portion of strictly ICE vehicles in model year 2035 and beyond. Also, as long as those ICE vehicles are CARB certified, N.J.A.C. 7:27-29A.3(a) would not prohibit their registration in New Jersey in 2035 (or any subsequent year that an ICE vehicle is CARB certified).

Delivered For Sale

722. COMMENT: CARB's wrongheaded approach to enforcement of the ACC II rule means that automakers are off the hook once they drop cars off for sale at dealerships in New Jersey, regardless of whether those vehicles sell or are ever placed in service. As the CARB mandate allows automakers to garner credits when they deliver the car for sale at a dealership, automakers are allowed to shift the burden of discounting or further incentivizing these vehicles to the dealer. By allowing automakers to dump expensive ZEVs on dealer lots without any obligation to price

or incentivize the vehicle to sell places a major financial burden on local businesses and will ultimately frustrate ZEV sales.

The Department should exercise its implied authority pursuant to Section 177 of the Federal Clean Air Act to adopt its own enforcement standard by awarding ZEV credits only when a qualified vehicle is titled or registered to an end user in New Jersey, not just delivered for sale. Public policymakers in New Jersey have a strong argument that such a provision would constitute an enforcement mechanism or procedure, rather than an emissions standard, that would promote EV sales (not just EV dumping) in New Jersey.

Section 177 of the Federal Clean Air Act requires that standards adopted by New Jersey be "identical" to California standards. However, an important legal distinction must be drawn between the applicable "standard"—the ZEV mandate itself—and any mechanisms to enforce it. As with Section 209(a) preemption, the Clean Air Act requires that the "standard" be identical to qualify pursuant to CAA § 177, not the mechanisms for enforcing the standard. In this case, the change of language from "delivered for sale" to "sold or leased" or "placed in service" affects the method of implementing and enforcing the standard but leaves the underlying standard unchanged. The percentage of ZEV pursuant to the New Jersey provision would remain identical to that in the California regulation. Extensive legal analysis suggests that it remains an open question as to whether a court would find New Jersey's adoption of a revision to the California ZEV standard requiring actual sales of vehicles, as opposed to delivery of vehicles for sale, is preempted pursuant to the Clean Air Act. Clearly, public policymakers in New Jersey have a strong argument that such a provision would constitute an enforcement mechanism or procedure, rather than an emissions standard.

It is also important to note that this change would not result in any requirement to produce a "third vehicle," or otherwise run contrary to the intent and purpose of either CAA § 209 or § 177 – which is to prevent manufacturers from having to produce different vehicles to meet differing state standards. In contrast, the State's unique enforcement mechanism likely will bolster actual sales in New Jersey of the same vehicles being delivered for sale in California. Accordingly, the proposed revision to New Jersey's ZEV regulation does not affect the identicality of New Jersey's underlying ZEV standard to that of California and, thus, remains subject to a waiver of preemption pursuant to Section 177. (27)

RESPONSE: The Department recognizes the concern that manufacturers may deliver vehicles that dealerships struggle to sell. However, it is in the manufacturers' best interest to have their vehicles sold and the path to that goal to is produce vehicles that customers want to purchase. Likewise, it is in the dealers' best interest to work collaboratively with manufacturers to get those vehicles that they know will sell best to the customers in their market. If a manufacturer's vehicles are never sold, its bottom line will be negatively impacted despite any gains from receiving ZEV values for deliveries to New Jersey dealerships. Therefore, the Department is adopting the rules as proposed.

Medium-Duty Vehicles

723. COMMENT: N.J.A.C. 7:27-29A would adopt by reference CARB's Low-Emission Vehicle IV (LEV IV) requirements at 13 CCR 1961.4 for chassis-certified medium-duty vehicle (MDV) and associated in-use testing requirements. Those Class 2b and 3 MDV (that is, vehicles with 8,500-14,000 pounds Gross Vehicle Weight Rating (GVWR)), are manufactured as

complete vans and pickup trucks. MDV pickup trucks can have significant towing capability and are often used in applications going beyond personal use such as construction and agriculture and, as such, do vital work for owners across the nation, including in New Jersey. The commenter has the same technical concerns that were expressed to CARB with adopting in-use testing requirements and standards which CARB had developed for their Heavy-Duty (HD) Omnibus Low Oxides of Nitrogen (NO_x) rule for HD engine certification and compliance and applying them directly to chassis-certified MDV in LEV IV.

More recently, the EPA proposed the Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles, which include new NOx certification and in-use standards for MDV. (See https://www.govinfo.gov/content/pkg/FR-2023-05-05/pdf/2023-07974.pdf.) CARB and HD manufacturers also recently entered into an agreement that includes a commitment by CARB to align its 2027 HD Omnibus Low NO_x regulation with EPA's 2027 HD NO_x regulation recently finalized as part of the Clean Trucks Plan. (See https://ww2.arb.ca.gov/news/carb-and-truck-and-engine-manufacturers-announce-unprecedented-partnership-meet-clean-air.). While the agreement for alignment on 2027 HD standards does not directly address the MDV ACC II concerns, it does offer insight into possible additional alignment paths which could address those concerns. (719)

724. COMMENT: One of the most significant obstacles to transitioning a fleet is the lack of availability of suitable medium- and heavy-duty ZEVs. For example, manufacturers have failed to produce an electric chassis for Class 7 and 8 (GVWRs over 26,001 and 33,001 pounds) vocational applications. ZEV cost is also a significant issue for fleets, particularly public. Medium- and heavy-duty ZEVs can cost 40 to 100 percent more than a comparable diesel engine

model. An over-the-road all electric Class 8 truck will cost nearly a million dollars. New diesel-powered trucks can be purchased for half that price. Much of any municipal fleet is made up of specialty equipment like hydro excavators, asphalt patchers, pavers, grinders, road graders, dozers, generators, welders, snowplows, compressors, etc. Depending on the circumstances, this equipment can routinely be expected to operate up to 24 hours per day during snow removal events or emergency situations and may be required to park at job sites where charging is not available. These are among the most energy intensive units in a city fleet, but are unlikely to have viable ZEV replacements any time in the near future. (651)

RESPONSE TO COMMENTS 723 AND 724: The ACC II rules apply to passenger cars, light-duty trucks, and medium-duty vehicles, as these terms are defined at 13 CCR 1900, which have been incorporated by reference at N.J.A.C. 7:27-29A.7. See N.J.A.C. 7:27-29A.1, 29A.2, and 29A.3. Heavy-duty vehicles and other vehicles or equipment are not subject to the ACC II rules, but heavy-duty vehicles may be subject to the Advanced Clean Trucks rules adopted by the Department on April 21, 2023. See 55 N.J.R. 1005(a) (May 15, 2023).

In adopting California's LEV IV standards, as with all other California standards, the Department is constrained by the identicality requirements of the Clean Air Act and is, therefore, unable to make any changes that would create a separate standard. If California amends its rules, the Department's rules would be amended at the same time in accordance with N.J.A.C. 7:27-29A.7. See the Response to Comments 675 through 687.

Clarifications and Updates of Miscellaneous Provisions

725. COMMENT: It appears, from the language of the proposed rules at N.J.A.C. 7:27-29A.7(c), that California Title 13 Section 2222 provisions would become effective 60 days after the adoption of the proposed rules. California Title 13 CCR Section 2222(h)(2) incorporates the "California Evaluation Procedures for New Aftermarket Catalytic Converters," which limits installations to CARB-certified vehicles and applies to all model years. The Department should modify the regulatory language regarding the adoption by reference of California Title 13 CCR Section 2222 to clarify that its provisions related to aftermarket parts will become effective at the same time as the other provisions of ACC II, that is, January 1, 2027, or later depending on the adoption date of the proposed rules. (293)

RESPONSE: It is true that N.J.A.C. 7:27-29A.7(c) states that in the event there are inconsistencies between the provisions of the CCR incorporated by reference and N.J.A.C. 7:27-29A, the provisions of the CCR shall prevail. However, the provisions at adopted N.J.A.C. 7:27-29A.2 are not "inconsistent" with the CCR. Adopted N.J.A.C. 7:27-29A.2 sets forth the scope and applicability of the Department's rules. And the Department made clear throughout the notice of proposal that the ACC II rules will be applicable in New Jersey beginning with the 2027 model year. The rule states that "The New Jersey Advanced Clean Cars II program shall apply to all model year 2027 or later motor vehicles that are passenger cars, light-duty trucks, and medium-duty vehicles subject to the California Advanced Clean Cars II program and delivered for sale in New Jersey on or after January 1, 2027." See N.J.A.C. 7:27-29A.2(b). As a result, the provisions incorporated by reference at adopted N.J.A.C. 7:27-29A.7, including 13 CCR 2222, will only apply to model year 2027 or later motor vehicles that are passenger cars,

light-duty trucks, and medium-duty vehicles. It would also not require CARB-certified aftermarket parts for Federally certified vehicles legally registered in the State of New Jersey at any time.

726. COMMENT: For an effective transition of the aftermarket parts and repair industry in the State of New Jersey to California Title 13 CCR section 2222-compliant aftermarket catalytic converters, there are several tasks that must be managed: (1) a public awareness campaign for parts distributors, parts retailers, repair shops, order writers, and consumers; (2) implementation of a revised parts data management system/catalogs will be needed to select the correct part for a particular vehicle; (3) repair shops, parts retailers, and warehouses will need to sell down their current parts inventory; (4) many vehicles registered in the State of New Jersey do not have California emissions certification, so there is a need for Department guidance; (5) New Jersey should address the reporting requirements of California Title 13 CCR Section 2222, which include reporting on the warranty and quality control (QC) of parts, along with sales data; and (6) there is a need to clarify the responsibilities for aftermarket parts warehouses located in the State of New Jersey who sell aftermarket catalytic converters to businesses located outside the State of New Jersey. (293)

RESPONSE: With respect to tasks one through four and six, the Department agrees with the commentor that industry outreach (including education, guidance, and time) is necessary for a successful transition to the use of CARB-certified aftermarket catalytic converters. Pursuant to the Response to Comment 725, the first model year affected by the aftermarket catalytic converter provisions is 2027. New vehicles are subject to a catalytic converter warranty period

of eight years or 80,000 miles (whichever comes first); thus, the anticipated need for CARB-certified aftermarket catalytic converters is many years in the future (likely 2033 or beyond). This will allow time for the Department to implement the outreach strategies mentioned by the commenter. The Department would be pleased to work with the commenter and other industry stakeholders in coming years to prepare for this future requirement.

With respect to task five, the Department is not aware of any such reporting requirements noted by the commenter. The Department has carefully reviewed 13 CCR 2222, as incorporated by reference at N.J.A.C. 7:27-29A.7, to be sure it does not contain any reporting requirements.

727. COMMENT: The multi-billion-dollar aftermarket industry for ICE and diesel vehicle parts continues to grow. The Department should not regulate the aftermarket performance industry. (543)

RESPONSE: The Department is not imposing any new requirements on the aftermarket parts industry. It has been the case for decades that aftermarket emission control devices must perform similarly to the original equipment parts and that aftermarket performance modifications may not make any pollutants emitted from the vehicle worse than the original certified configuration. See U.S. EPA Memorandum 1A, dated June 25, 1974 (https://www.epa.gov/sites/default/files/documents/tamper-memo1a_0.pdf) and its subsequent updates such as November 23, 2020 (https://www.epa.gov/sites/default/files/2020-12/documents/epatamperingpolicy-enforcementpolicyonvehicleandenginetampering.pdf). The Department's incorporation by reference of 13 CCR 2222 at N.J.A.C. 7:27-29A.7 only requires that model year 2027 and newer vehicles subject to the ACC II regulation be repaired with

CARB-approved parts to ensure that such vehicles continue to meet their CARB-certified emission levels.

Federal Standards Statement

N.J.S.A. 52:14B-1 et seq. (P.L. 1995, c. 65), requires State agencies that adopt, readopt, or amend State rules that exceed any Federal standards or requirements to include in the rulemaking document a Federal standards analysis.

The Federal Clean Air Act (CAA) (42 U.S.C. §§ 7401 et seq.) granted the State of California the authority to enact stricter emission standards than the national standards set by the EPA. See 42 U.S.C. § 7543. The CAA also authorizes qualifying states to adopt and enforce emission standards for which California has received a waiver, if the state gives two years' lead time. See 42 U.S.C. § 7507. Thus, once the EPA grants California's request for a waiver for the ACC II regulations, pursuant to 42 U.S.C. § 7543, the more stringent emission standards incorporated by reference will be a Federally authorized standard. If, however, a waiver is not granted, the proposed rules will not be applied or enforced pursuant to N.J.A.C. 7:27-29A.2. Given the framework of the CAA, the proposed rules would not exceed a Federal standard once a waiver is granted. Thus, no further analysis is necessary.

Although the Department determined a Federal standards analysis is not necessary because the rules will either be Federally authorized or will not be enforced until Federally authorized, the Department recognizes that the ACC II program is more strict than the EPA's current multi-pollutant emission standard. The Department has determined that it is critical to reduce greenhouse gas emissions to mitigate the impacts and effects of climate change. In New

Jersey, passenger vehicles and light-duty trucks are the largest contributors to greenhouse gas emissions from the transportation sector. By adopting the ACC II program, the State will achieve greater emission reductions, which should result in greater health and environmental protections, than a business-as-usual scenario under the EPA's current multi-pollutant emission standards.

The direct costs of the ACC II rules will be borne by manufacturers, who will face an increase in incremental costs to produce ACC II compliant vehicles versus the production of vehicles compliant with EPA's existing emission standards. Nonetheless, a manufacturer's costs to design and produce vehicles that comply with the more stringent, ACC II emissions standards will only need to be incurred one time and will not recur each time a Section 177 state adopts the ACC II standards. Consumers of battery electric vehicles are likely to see a cost savings over a 10-year cost of ownership period. Whereas consumers of fuel cell electric vehicles and plug-in hybrid vehicles are not anticipated to achieve a net savings over time. Though the State may experience deceases in revenue, as a result of the decrease in sales of internal combustion engine vehicles, intervening legislative, regulatory, and policy changes related to vehicle sales and fuel taxes in the next two decades could reverse that trend. Car dealerships and the automotive repair industry in New Jersey will also have to make adjustments to their business models including investments in infrastructure, such as charging stations, that will result in increased costs. And some businesses in the State, like gasoline retail stations will see a decrease in sales, while other businesses, like businesses that supply engine components to manufacturers and ZEV infrastructure installers, will likely see an increase in sales. To the extent costs are incurred, the Department has determined that these costs are justified due to the need to reduce emissions from the light-duty vehicle sector and transition to zero-emission vehicles.

As CARB explained in its ISOR, "[m]anufacturers have made significant improvements in battery technology, which has enabled more vehicle offerings in more segments and increasing capabilities. […] Additionally, technology costs have fallen significantly, namely battery costs, over the last 10 years and are expected to continue to drop over time. This will make ZEVs cost-competitive with gasoline vehicles in the 2030-2035 timeframe, if not sooner. [… T]he market is clearly poised for massive transformation. Every light duty vehicle manufacturer has made commitments to electrify their product line." ISOR at pp. 36-37. For these reasons, the Department is confident that the increase in ZEV sales required by the ACC II program is achievable.

As explained in the notice of proposal Summary, the adopted rules are intended to be a first step in a comprehensive plan to lower greenhouse gas emissions in the State in order to mitigate the impacts of climate change. The Department has determined that the ACC II program is essential if the State is to successfully decarbonize light-duty vehicles. Further, the Department anticipates the benefits of the rulemaking to be an increase in the quality of life and protection of human health and the environment.

Amendments to the LEV Program at N.J.A.C. 7:27-29

The Department's amendments at N.J.A.C. 7:27-29 at the conclusion of calendar year 2025 would not exceed a Federal standard. In fact, the Federal standard would be in effect for at least one calendar year before the ACC II program would become operative. Thus, no further analysis is necessary.

Clarifications and Updates of Miscellaneous Provisions at N.J.A.C. 7:27-14, 15, 28A, and 31

The amendments at N.J.A.C. 7:27-14 and 15 merely update a reference to an EPA memorandum; therefore, no Federal standard analysis is required. The amendments at N.J.A.C. 7:27-31 clarify that exemptions to California's ACT program should have been incorporated by reference when the Department originally adopted the rules. Since EPA granted California's request for a waiver for the ACT program rules, pursuant to 42 U.S.C. § 7543, the ACT program is a Federally authorized standard. Accordingly, no Federal standard analysis is required. The amendments at N.J.A.C. 7:27-28A establish a New Jersey-specific ABT program consistent with California's Low NO_x Omnibus rules. Once the EPA grants California's request for a waiver for the Low NO_x Omnibus rules, pursuant to 42 U.S.C. § 7543, the more stringent emission standards incorporated by reference will be a Federally authorized standard. If a waiver is not granted, the rules will not be applied or enforced; therefore, no Federal standard analysis is required.