



**NEW JERSEY
PROTECTING AGAINST
CLIMATE THREATS:**

Dramatically cut emissions
of greenhouse gases.



#NJPACT

What We Learned

Greenhouse Gas Monitoring and Reporting Rule

Adopted April 2022 to inform the state's climate mitigation efforts

Refrigeration Systems and Chillers

Adopted N.J.A.C. 7:27E

Reporting requirements
for users of halogenated
gases

Natural Gas Public Utilities

Adopted N.J.A.C. 7:27E

Methane reporting
requirements for gas
public utilities.

Methane Emission Sources

Amended N.J.A.C. 7:27-21

Require sources of methane
with a potential to emit 100
tons or more annually to
report their emissions.



Registration and Reporting for Refrigeration Systems

N.J.A.C. 7:27-E-2

HFC Rule Applicability + Approach

Applicability

Facilities that install or operate:

- At least 1 refrigeration system
- System has a full charge of 50 lbs or more of a high-GWP refrigerant

Types of equipment covered:

- Chillers
- Commercial refrigeration
- Industrial process refrigeration

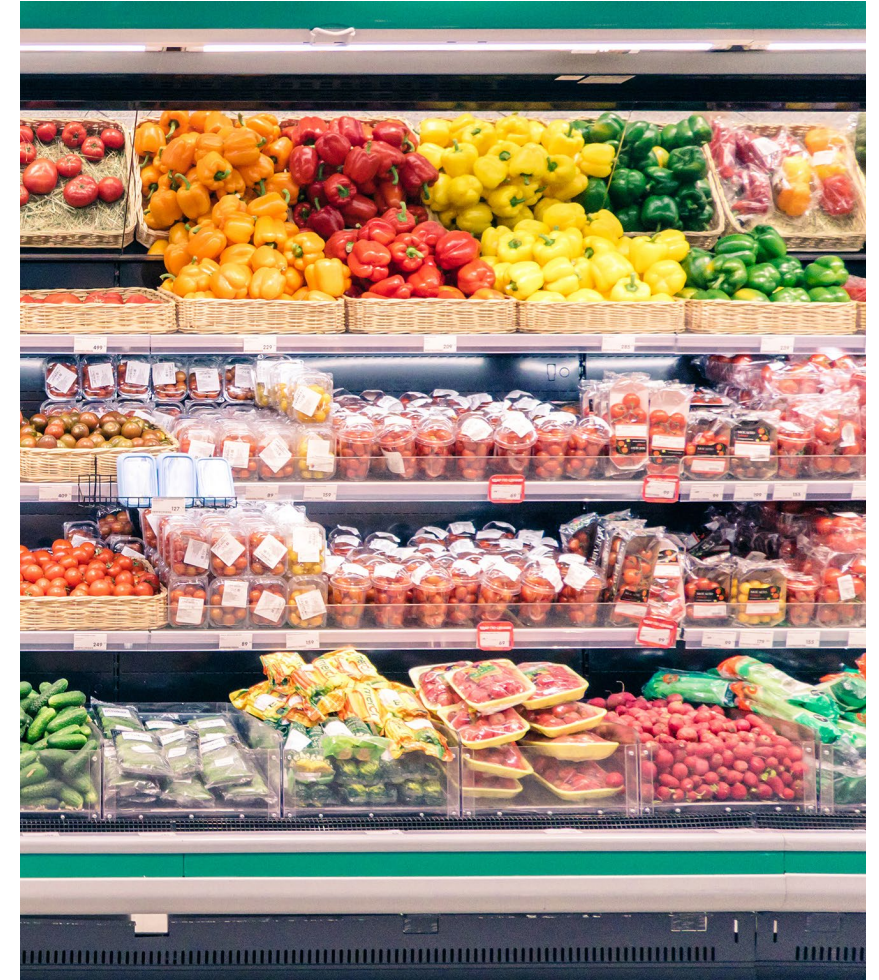
Facilities must report

High-GWP refrigerants:

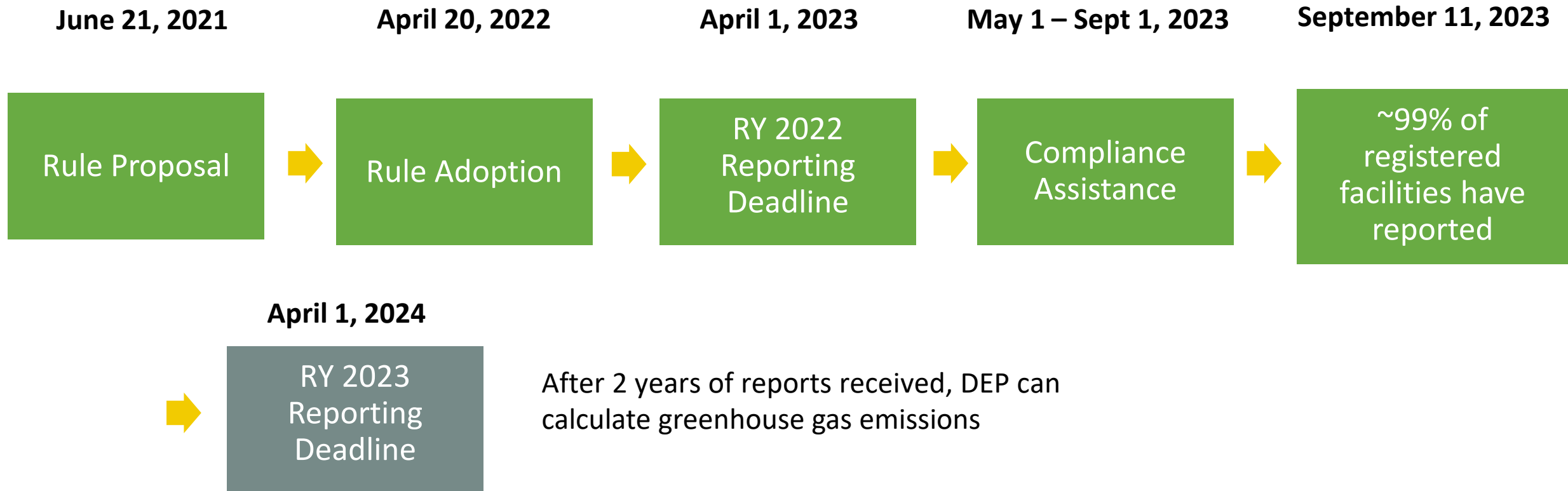
- Types used
- Quantities purchased
- Amounts charged into system
- Amounts recovered, stored, or shipped to be reclaimed or destroyed

Refrigeration equipment type:

- Manufacturer
- Description/model, model year
- Temperature classification
- Full charge



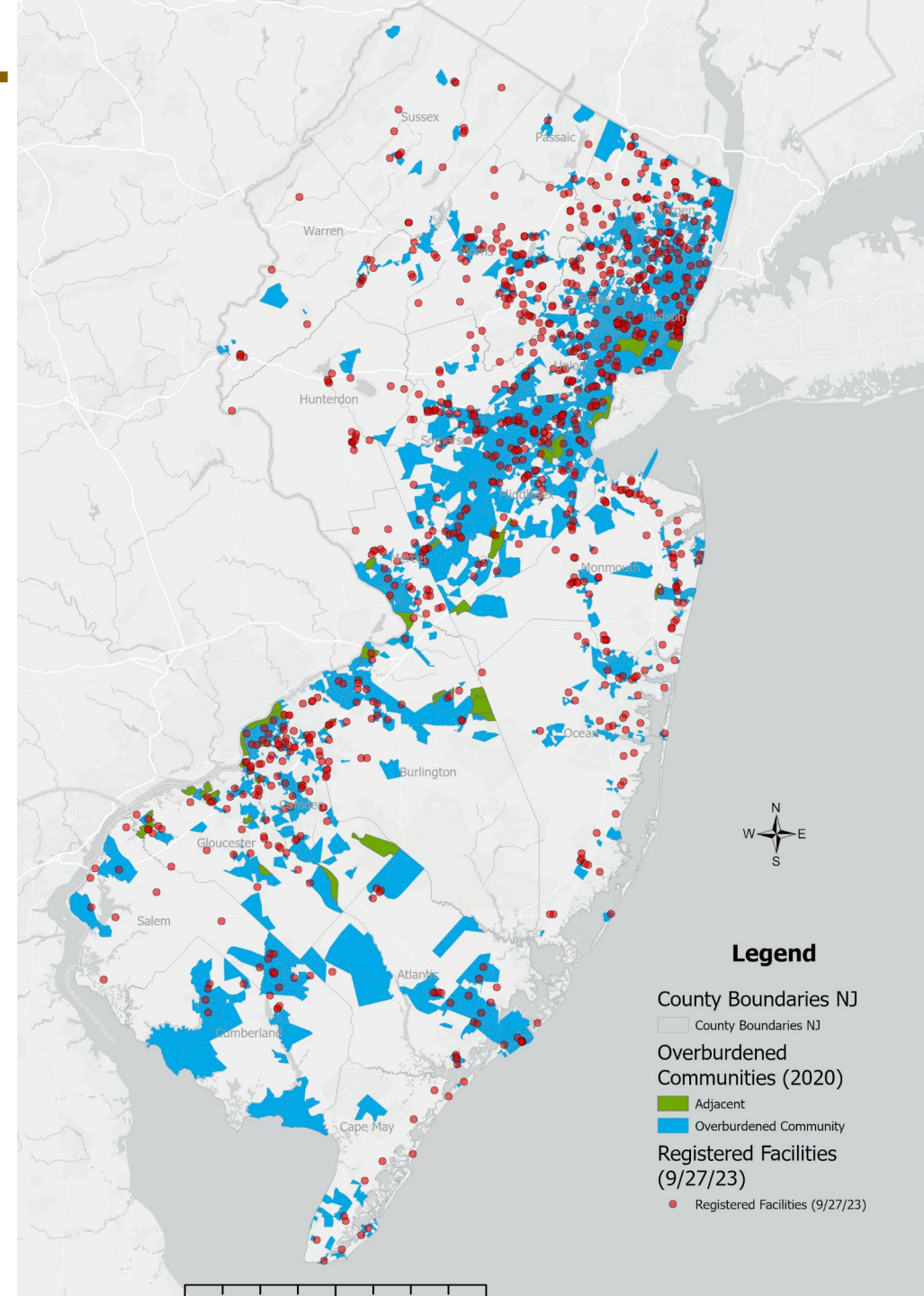
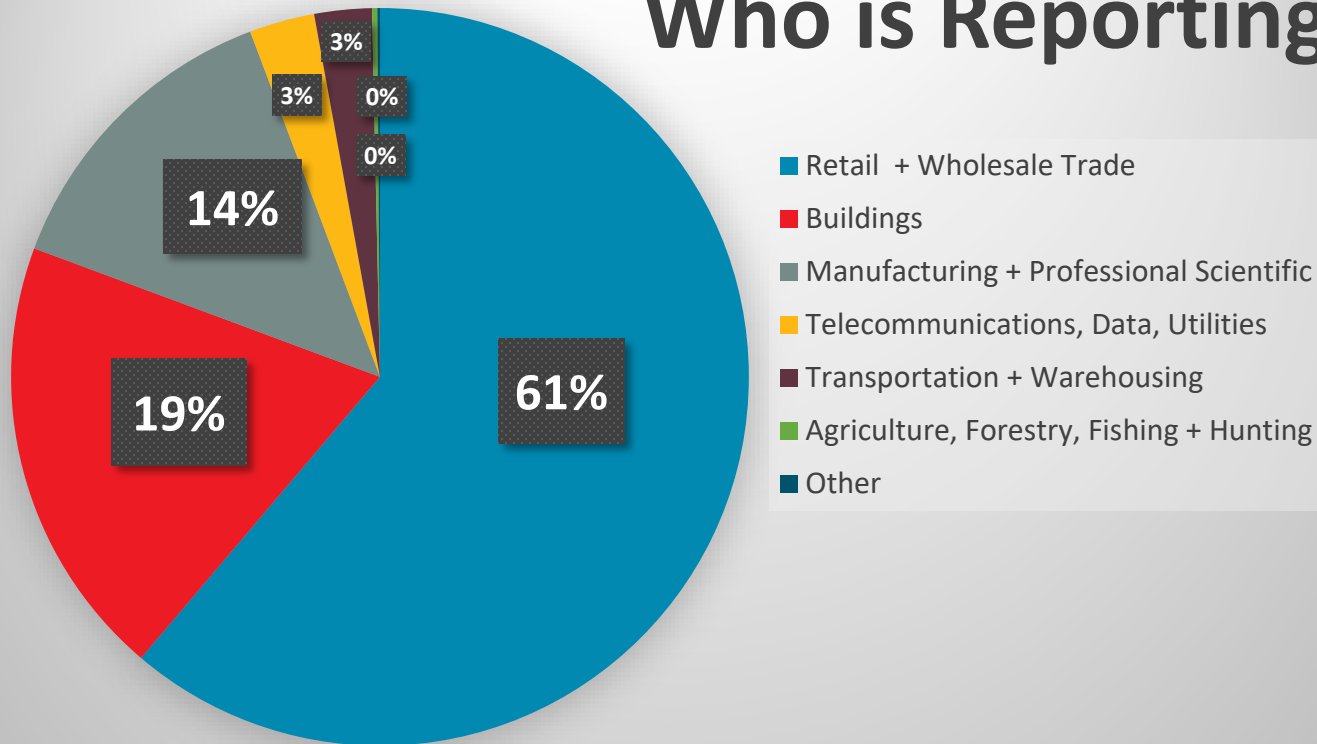
HFC Timeline of Actions to Date



Data Summary

- An estimated 1,000 regulated facilities are located in New Jersey.
- 943 facilities currently reporting with 4,440 systems across the state

Who is Reporting



Data Summary

Top 5 Refrigerants	Global Warming Potential	Count of Facilities	Metric Tons of CO2-eq
R-404A	3,920	309	1,140,193
R-22	1,810	181	623,106
R-134a	1,430	183	629,187
R-407A	2,110	528	545,684
R-507	3,990	55	432,284

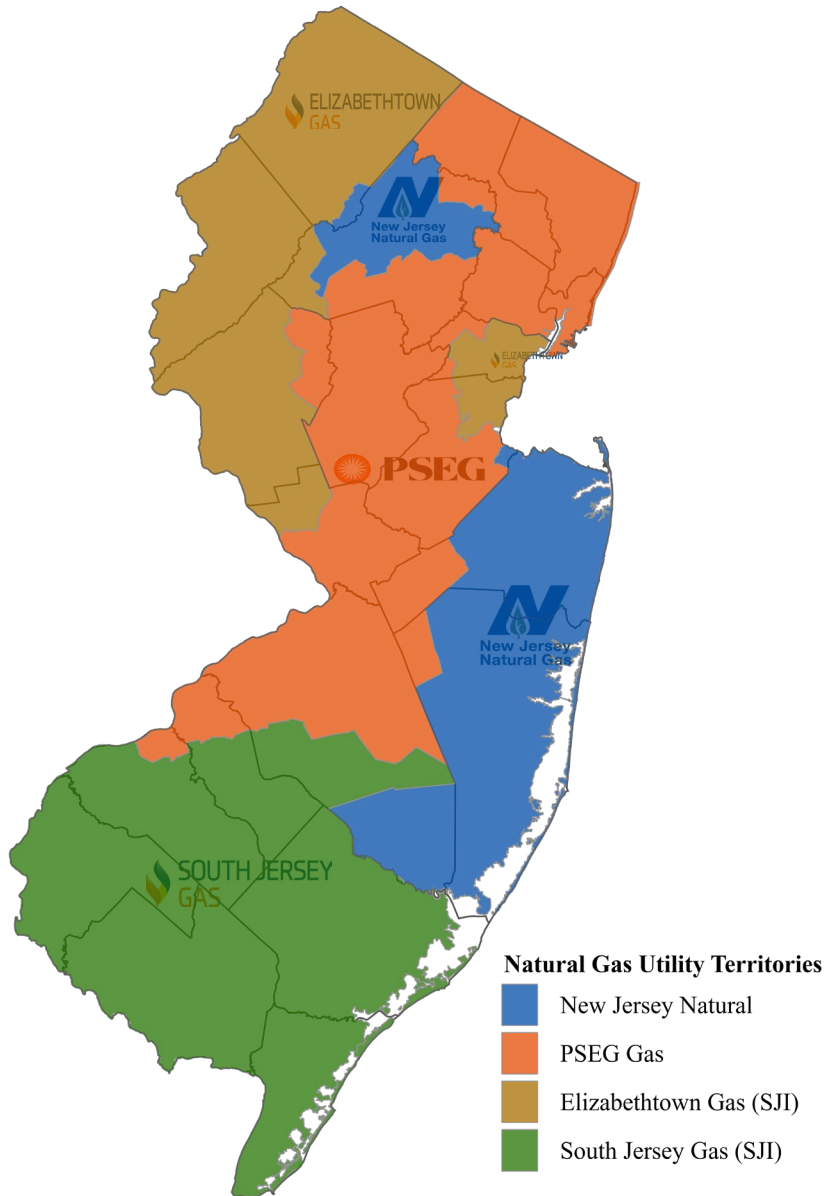
Very preliminary data from 2022 shows:
Over 4 million metric tons of CO2-equivalent in use at the reporting facilities

The background is a solid dark blue color. Overlaid on this are several abstract, light blue geometric patterns. These include a series of concentric, slightly irregular circles or rings that spiral outwards from the left side. There are also various triangular and polygonal shapes scattered across the page, some of which are interconnected by thin lines, creating a network-like or mesh appearance. The overall effect is a modern, technical, and digital aesthetic.

Reporting for Gas Public Utilities

N.J.A.C. 7:27E-3

Natural Gas Rule Applicability + Approach



Utility Reporting Obligations

Annual Pipeline Modernization Report Elements

Mains

Miles of Mains

Number of Service Lines

Replacement Material Type

Distribution System Leaks

Component

Grade

Date Repaired

Location

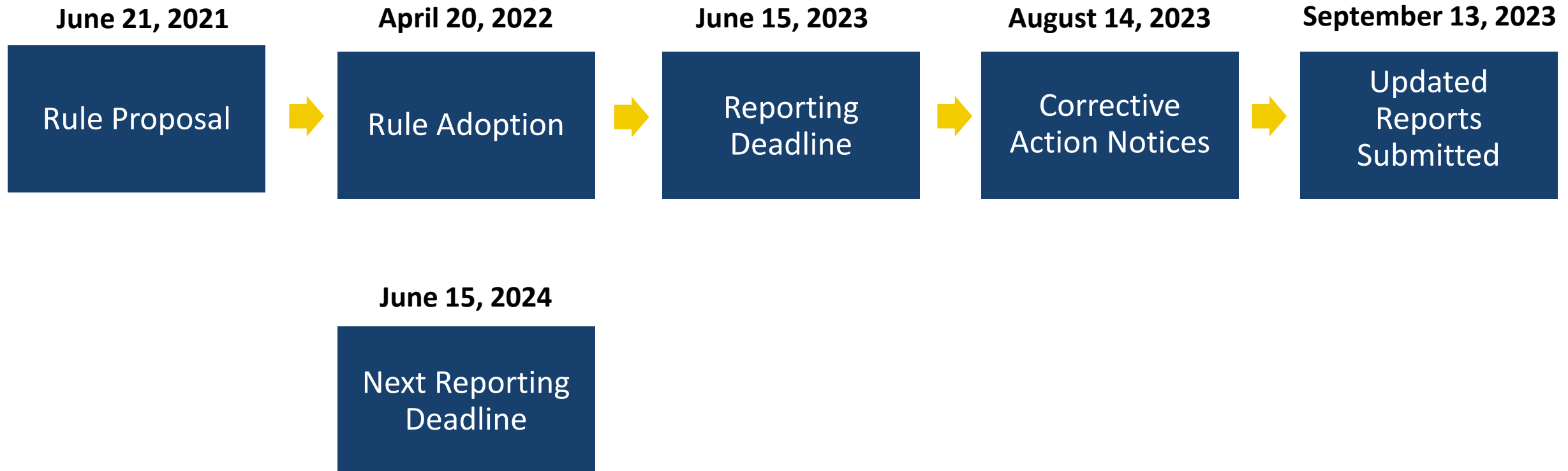
Leak Detection

Practices exceeding federal requirements

Blowdown Reporting

Events exceeding 50 standard cubic feet

Natural Gas Rule Timeline of Actions to Date



Leak Classification Background

Grade 1: Most Severe

Grade 2: Moderate Severity

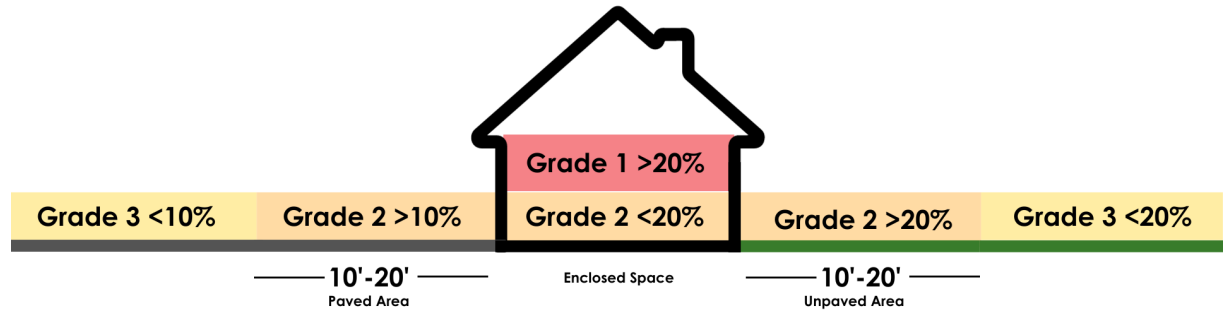
Grade 3: Least Severe

Immediate Repair

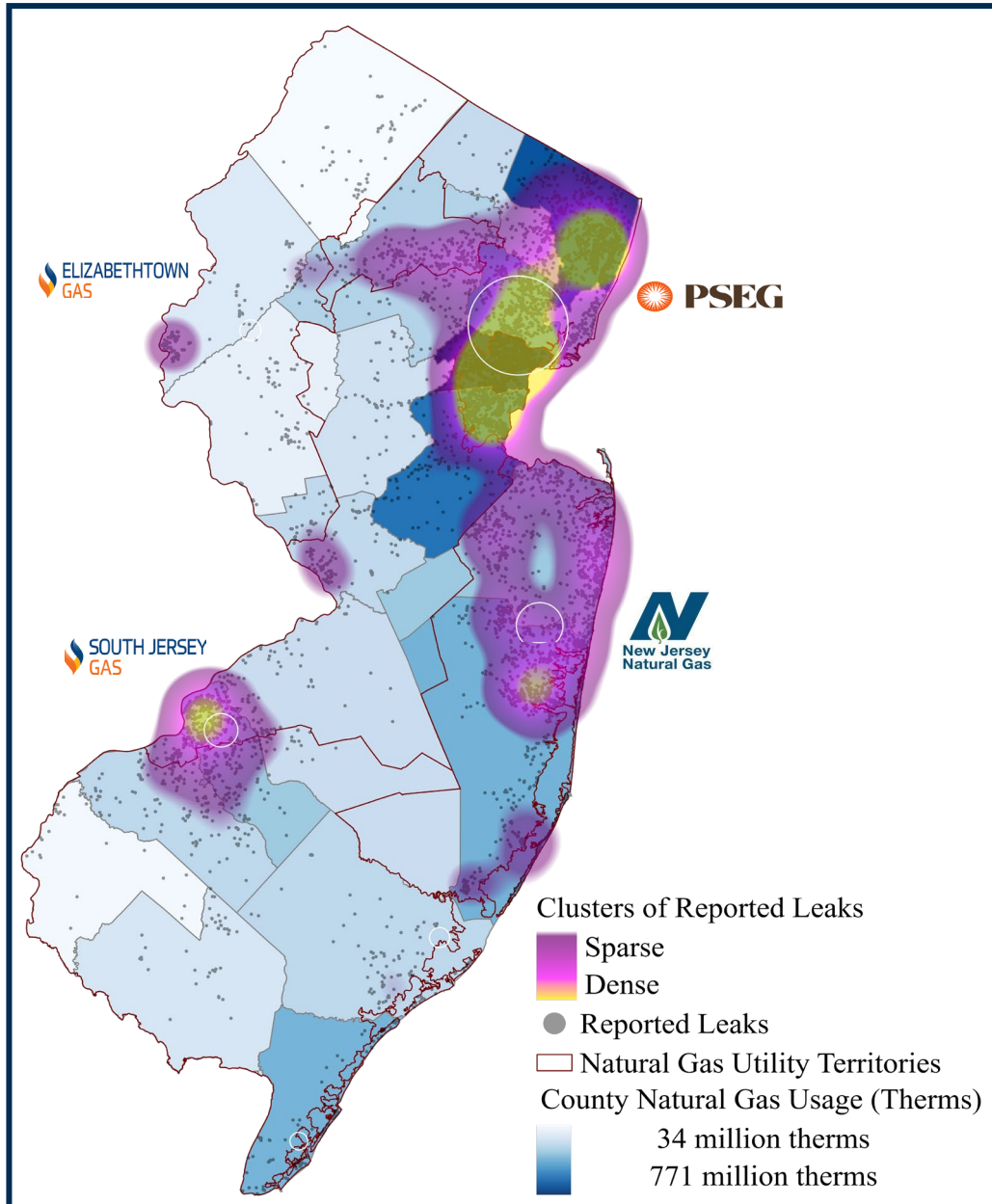
Repair within 6 Months

Repair within 2 Years

Leak Grade Classification: Lower Explosive Limits



Preliminary Data Summary

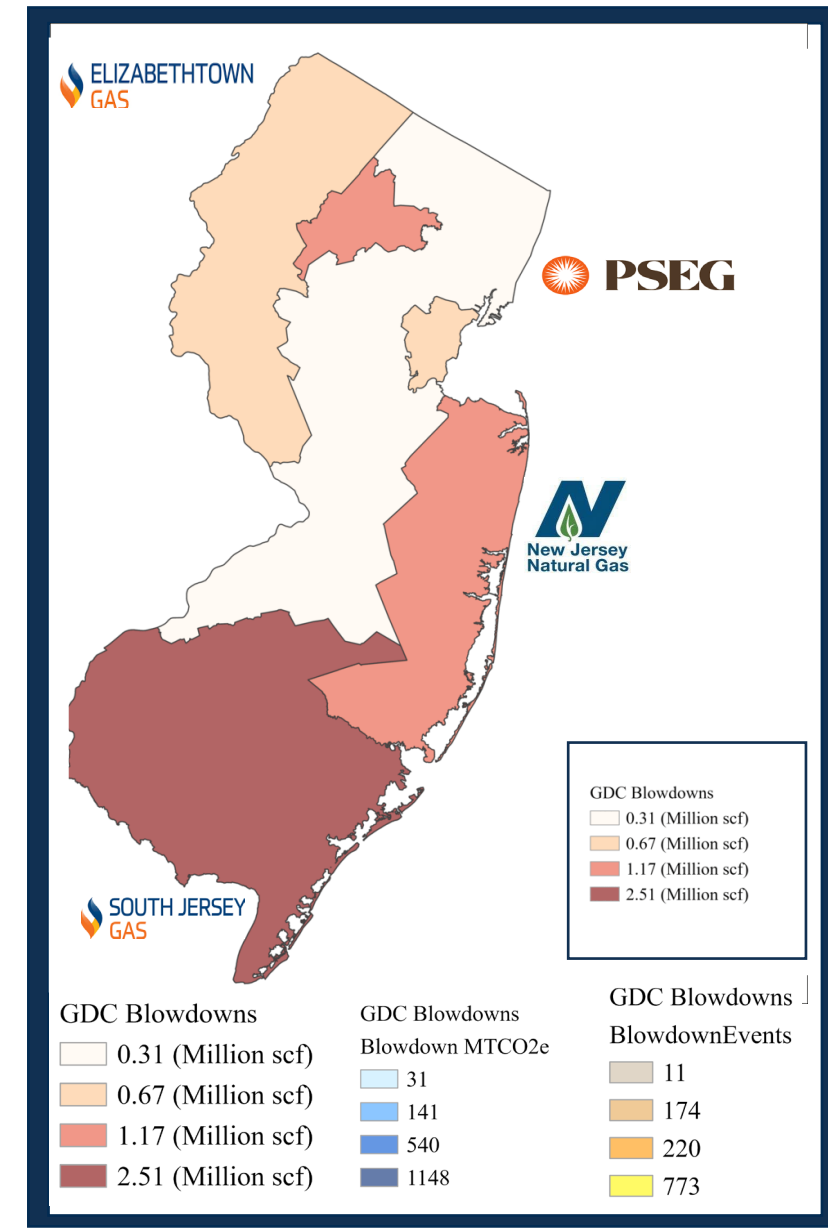


Statewide All Reported Leaks			
Leak Grade	Total	Average Repair Time	Within OBC
Grade 1	3,516	39 Days	1,474
Grade 2	2,865	105 Days	1,542
Grade 3	1,446	104 Days	880
Total	7,828	82 Days	3,896

Data Exploration & Preliminary Findings: Blowdown Events

Blowdown event means the **non-emergency release of natural gas** from a pipeline for the **purposes of inspection, maintenance, or repair** and where, in the **absence of control, methane** could be **released** to the atmosphere.

	Events	Volume (scf)	% CH ₄	MTCO ₂ e
SJG:	174	2,503,799.00	95.0	1,148.00
NJNG:	11*	1,176,692.00	95.0	540.00
PSEG:	773	304,475.35	96.0	141.00
ETG:	220	67,535.00	95.0	31.00
Total	1178	4,052,501.35	-	1,860.00





Methane Emission Statement Rules

N.J.A.C. 7:27-21

Methane Emission Sources Applicability + Approach

- Annual reporting requirement for all sources that emit, or have the potential to emit, methane equal to, or more than, 100 tons per year,
- There are nine landfills that will be reporting as a result of the rule.
- First round of reporting due by May 15th, 2024

