STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
CLEAN AIR COUNCIL
THE IMPACT OF ELECTRIC UTILITY
DEREGULATION ON NEW JERSEY'S ENVIRONMENT
1999 PUBLIC HEARING

Transcript of proceedings taken on April 14, 1999 at 9:30 a.m. at the Department of Environmental Protection, 401 East State Street, Trenton, NJ.

A P P E A R A N C E S

CLEAN AIR COUNCIL MEMBERS:

George Currier, P.E.

Peter S. Palmer, NJ Association of counties Irwin S. Zonis, public

Michael Berry, NJ Department of Health and Senior Services

Stephen J. Papenberg, NJ Health Officers Association

Farid Ahmad, P.E., NJ Department of Community Affairs

Raymond M. Manganelli, PhD, public

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Jorge H. Berkowitz, PhD., Business and Industry

Joseph A. Spatola, PhD., public

John Maxwell, public

Erin Indelicato, Clean Air Council Liaison

I N D E X

MR. SPATOLA: My name is Joseph Spatola. I want to welcome the general public this morning to our annual public hearing for 1999. The subject of this year's public hearing is the impact of the electric utility regulation on New Jersey's environment. As the general public knows, the regulations of the electrical utility industry resulting from federal actions stands a great competition in the process of offering lower electric rates for all customers. The deregulation, however, there are other impacts expected to occur particularly on the environment. Today we will explore this aspect of deregulation in an attempt to determine how public policy should will be developed to deal this this matter. As chairman of this mornings's public hearing, or today's is Dr. Jorge Berkowitz to my right, and he will be sharing and overseeing this public hearing today. Before I turn it over to him, I would like to have the members of the Clean Air Council introduce themselves. Before that happens, I would like to take this opportunity to pay special thanks to Mrs. Erin Indelicato for all her work and effort to get this public hearing together so we can

have it this year as we do every year. And also, to thank John Elston who has helped in sharing the department of resources in putting this hearing together as well. So at this point I would like to get introductions done across the board here.

MR. MAXWELL: My name is John Maxwell. I'm a member of the public. And when I'm not a member of the public I'm with the New Jersey petroleum council. And I would like to also say special thanks to Joe for being our chair during the last year, he's done a marvelous job. As well as to recognize the other folks who distributed their time and effort to the work of the Clean Air Council.

MR. CURRIER: My name is George Currier. I'm vice president in charge of the mechanical engineering. I represent the New Jersey society of professional engineers.

MR. PALMER: I'm Peter Palmer, representing the New Jersey association of the counties.

MR. ZONIS: Irwin Zonis, I'm a public member and I'm retired.

MR. BERRY: Michael Berry, I represent the New Jersey Department of health and senior

services.

MR. PAPENBERG: Stephen Papenberg, I'm the health officer of South Hunterdon Township. I'm also the president of New Jersey local boards of health association. And I'm representing New Jersey health officer's association.

MR. AHMAD: Farid Ahmad, I represent New Jersey department of community affairs.

MR. ANDERSON: Pete Anderson, I represent the secretary of agriculture, and the department of agriculture.

MR. EGENTON: Michael Egenton, representing the New Jersey state chamber of commerce.

MR. BERKOWITZ: Good morning, my name is George Berkowitz, I'm a vice president of environmental scientists. And I represent New Jersey business and industry association.

MR. MANGANELLI: I'm Ray Manganelli and I represent the public.

MR. BERKOWITZ: I'd like to thank Joe for the introduction of today's topic. I'd just like to take a couple of minutes to reintroduce what we're looking for today, as well as some of the ground rules. First of all, I would like to--let's go over some housekeeping details, it's

probably more important than anything. There will be no breaks today, no scheduled breaks, so you all have to stay here. We have a very tight schedule, a very tight schedule indeed. We're booked up with speakers until 3:30, and knowing us for asking questions, it's going to be a difficult task to stay on that schedule, but I will do my best. Therefore, with three minutes remaining in your allotted time, I will tell you that. And then, with a certain amount of tolerance, I will tell you to please end your discussion or your presentation. If we run very late, which is a possibility, and hopefully not a necessity to do this, the chair reserves the right to cut down the scheduled 15 minute presentations to whatever is necessary. I hope we don't have to do that. I also would like to give a couple of thanks, first of all, the subcommittee of the Clean Air Council who worked on putting this together, Dr. Spatola, Mr. Maxwell and Mr. Egenton, I thank very much for their time and efforts. I also would like to Erin Indelicato for doing just an outstanding job, as well as members from the department who serve us extremely well and with a great deal of

attention. And Mr. Elston, and Mr. O'Sullivan and people like Sandra and so forth and so on, we are really thankful for all of their efforts for working with the Clean Air Council. We are here to discuss the impacts of senate five, Assembly ten sponsored by Senator Bruso and Assemblyman D'Catano and Barget. I think perhaps the best way to launch into this is really to take a look on the our announcement, because I cannot do a better job of discussing the issues that we seek to explore in today's session. First of all, the Clean Air Council was formulated in 1954 by an act of the legislature. The clean air council--one of the tasks of the Clean Air Council is to make recommendations to the commissioner of the department of environmental protection on topics as they impact clean air. One of the ways that we do this every year is we have an annual hearing on a topic that we think is timely and appropriate, in order to hear from all the representatives of the all--representatives of all the public so that we can assimilate the information, digest it, discuss it, debate it, and then come out with a recommendation report to the commissioner

regarding that specific topic. That's what this is all about today. The New Jersey citizens can expect to see the deregulation in the state's electric utility industry the summer of 1999. I believe the date is August 1 for electric, and December 31 for gas, if I'm not mistaken. How will these changes affect their environment? The question will be the topic of the New Jersey clean air council's April 14, 1999 public hearing. The purpose of the hearing is to provide information to the Clean Air Council from interested members of the public about the potential environmental impacts of energy deregulation. A transformation of the electric industry is expected to result in deregulation. Many predict that this transformation will affect the type of fuel used in generation of electricity, which in turn will affect the type and amount of pollution New Jersey's air, as well as the pollution transported downwind into New Jersey from other states. The hearing will consider what the environmental impacts may be, evaluate the degree or extent of the impacts, consider what actions state government may take to bring about environmental improvement, and to

address the consequences. The Clean Air Council recognizes that individual electricity customers may well affect the outcome. Deregulation will allow customers to choose its supplier, and decide whether to take the environmental characteristics of the power into consideration when deciding what power to buy. The hearing will explore the best means to inform the public of the significance of the choice they will make. The Clean Air Council looks for the following questions at the public hearing. One, in 1995, 39 percent of New Jersey's electricity came from coal, four percent from oil, 11 percent from natural gas, 44 percent from nuclear, and two percent from hydroelectric power. How will this change with deregulation? Two, what effect will deregulation have on New Jersey air quality? What other environmental impacts might result? For example, specifically related to mercury contamination. And three, what plan does the state government have? And this is an important issue, and one that is keenly of interest to all the council, but particularly select members on the council. What plan does the state government have to insure that the concerned public is

provided the information it needs? What information does a citizen need to make an informed choice in selecting an energy supplier? And by the way, we have previewed some attempts at this, and quite frankly, we're still not convinced that anybody has the best way of doing this. Four, how can state government protect New Jersey air from being polluted by emissions from less clean, out-of-state energy sources? Five, what types of conservation and new clean sources including those that rely on renewable energy, should be encouraged in New Jersey, and what can state government do to promote these? Six, will deregulation provide incentives or disincentives for conservation and renewable power? That's what we're trying to do today, trying to understand all these issues. And without further to do, it's my distinct pleasure, and always a pleasure, to introduce you to the department of environmental commissioner, Mr. Robert Shinn.

MR. SHINN: Thank you very much. It's my pleasure to be here this morning and address the council. And I'd like to thank all the members for all their good work in dealing with an issue that's really a tough one for New Jersey. I just

think that looking back ten years where we were in 1988, with 45, one hour ozone violations and where we are in 1998 with four, one hour violations is pretty indicative of the progress we've made. However, that's with a one hour standard, and with the eight hour standard it's a different story. I think we have something like 47 violations of the eight hour standard this year, so we've got our work cut out for us. But it appears with some additional reductions of NOx and VOC's, that the one hour standard is somewhat within our reach. As you know, the second phase of the OTC, NOx goes into effect May of this year, which is a 65 percent reduction level. So NOx being one of our targeted precursors, we're going to see additional reductions in NOx. Phase two, the acid rain is the following year, 2,000, so we'll see some additional benefits from SO2 reductions following the suit. The discussion, I guess, on the deregulation relative to impacting New Jersey's air quality is something that we've had on our minds for a good number of years, and I think our meetings through the OTAG process, or ozone transport assessment group, with FERC, federal energy regulatory commission, I think

John had about three of those or so, and I guess we were on two tracks, we never seem to be able to engage FERC on the front end with independent meetings with the emissions issue directly, even though they did an environmental impact study, there were some assumptions in that study which I think were on the positive side from their perspective on what would happen to air quality. So this whole process involved, I think OTAG kept pressure on that process, that ultimately the council of the environmental quality that serves the president on the environment, and Carol Browner and FERC really came to a consensus. OTAG modeling said there was about three million tons of transport, and the consensus was, in a letter to OTAG from the administrator, said that we're going to reduce two million tons of that transport. So the northeast was going to get, essentially, a million tons of net transport. And this decision and letter probably goes back the best part of 18 months or so. So I think that sort of, in a way, set a little bit of the tone for the OTAG process. And as you know, OTAG came to a near consensus vote of thirty-two to five out of the 37 states recommending to EPA

that regulations be put into effect that reduce air emissions from 55 to 85 percent from the 1990 inventory levels. And that was a pretty significant recommendation, that modeling went to EPA. They worked on finer grid modeling, and I think their SIP call is very supportive of the OTAG work and a finer resolution from a grid perspective of what the impacts on individual states really mean. There's a huge controversy on the SIP call, and that will go on for probably another year or so. But I can tell you that we're very satisfied with process, we think it's the beginning of our way to address the eight hour standard. There's a lot of other work that we have to do to address that standard, but certainly the SIP call is the heart of soul of us being able to achieve health base standard in New Jersey. The electric discount and energy competition act is a massive and over arching legislation with significant implications for New Jersey's economists. It deregulates the energy industry and transforms the marketplace from a closed monopoly to an open competitive market. It's broader in scope and will set a motion a transition from a fully regulated industry to a

competitive power supply marketplace. It will need to do this while preserving reliable power supply and delivery systems at the same time, while providing fair treatment to all stakeholders during the transition. It's a complicated process, and many of you who have spent sometime reading the legislation are probably as confused as I am. But it's the environmental aspects that we're here today to discuss. The part of the deregulation law that is intended to mature the improved energy efficiency and demand side management remain a part of the state's long term energy efficiency strategies for all New Jersey consumers. Important parts of the deregulation law address changes in technology, and the mechanisms to aid in the delivery of cleaner renewable sources of energy within the competitive marketplace. We're here to talk about the piece of the deregulation law that establishes a process to prevent any adverse impact on environmental quality in the state. This act now means that you and I individually, and collectively as businesses, the general public and government will now have to make decisions on how to use energy. In these

decisions we need to consider the environmental impact and benefits of those decisions. While the entire bill has many aspects, there are four main areas of the deregulation bill that interact with our environmental goals. Environmental disclosure, renewable portfolio standards, emissions portfolio standards and renewable energy technology and energy efficiency funding. And before I discuss these areas and how the DEP can assist the BPU in this process, I want to talk about the marketplace initiatives that we have implemented at DEP. New Jersey has implemented an open market emission trading program for NOx and VOC. And NOx credits currently trade for close to a thousand dollars a ton and VOC credits trade for a little over two thousand dollars a ton. And we probably, last count, have something a little over 22 hundred or is it 22 thousand tons of credits, both NOx and VOC. So people have used the incentive to generate reductions above and beyond their permit levels to generate. We intend to utilize those same market forces to advance the voluntary greenhouse gas action plan. In a non-regulatory approach, the GHG action plan sets a 3.5 percent

reduction over 1990 levels by the year 2005. We expect to achieve these reductions through what we have termed no regrets options. These options we believe are doable and will be cost effective as well as economically beneficial. Another market force at DEP is a program to promote environmental technologies. The basis for the program is documented through verification by a third party independent entity, the New Jersey Corporation for Advanced Technology. NJDEP certifies the overall performance of a technology to meet the highest environmental standards and minimize any impacts to the environment. With the verification of the performance of technologies to do better than the standards, we will still work within the state and through interstate reciprocity to breakdown regulatory barriers to promote and apply these cleaner technologies. I hope that many of you have the environmental expo on your agendas, you'll see some of these technologies at the expo. And that's April 20 and 21 at the convention center in Atlantic City. I think at this point there's about 85 venders supplying various types of technologies. You can see from the slide that

was up there a minute ago our basic distribution of sources of emission reduction is pretty well distributed among the six generations of green house gases. And transportation certainly plays a big part of automobiles and fuels. Government has its own impacts and we put the municipal waste category under government. We have a lot of landfills that generate a lot of CO2 methane and VOC's, and we've targeted them as part of our inventory reduction for not only leachate collection and capping and methane gas utilization as well. Agriculture land use, the industrial commercial sites, retail manufacturing and certainly the residential has a major impact as well. So we've distributed the impact I think pretty well in what we call no regret strategies. New Jersey's action plan, which was one in the same with the greenhouse gas program, we look at CO2 as an umbrella pollutant. It impact toxics, as well as our clean air act pollutant. We're in the process of refining or base line inventory and our emissions data and this is a lot of good work. The fellow putting the slides on the screen, Mike Linka, he works under our science and research division. And I

tell you there's a lot of people who are putting a lot of work into this effort and what we can get in reductions through an effective greenhouse gas program. Again our target is three and a half percent below the 1990 levels by 2005. That's sort of a mid-course level in regard to the international discussion that's going on. The first thing we have to do is get control of our increase of emissions, and the second thing is get reductions. And we think 2005 is a reasonable mid point force to review our programs and our strategies and see how we're doing. Again it is a no regrets reduction strategy, and I guess the definition of no regrets, if we're wrong about the science of global climate change, and we try to stay out of discussions about the science, because we think there's energy efficiency really drives this program and adding a technology component and a recycling component to reach our goals supporting those technologies. I think that's particularly unique to New Jersey. Once in a while I forget that New Jersey has a reputation of being the invention state, and I think this program really challenges that reputation. Again, the innovative

technology business, we're going to see something very quickly in Atlantic City. We've got, the last count, 27 states and at least four foreign countries attending that event. And we think you'll see some of the cutting edge technologies that we think are a logical part of this program. And of course outreach and educational programs is the key part of any strategy to reduce emissions, and that's something we're going to spend a lot more time on. The marketplace forces of emissions trading programs and our innovative technology program can be coupled with portfolio standards. The renewable energy technologies created by the deregulation law are a double savings for air quality. By promoting renewable energy technologies we get collateral benefits for emissions reductions in all sectors of our economy. Simply put, CO2, NOx, SO2, hazardous air pollutants and discharges are products of inefficient production of energy. We can no longer afford to dump waste products up the stack without extracting their full energy value. We can no longer afford to pass along the costs of that inefficiency on to someone else. Let's quickly overview each of these components.

Environmental Disclosure, Environmental disclosure is a key outreach and education measure. All consumers of electricity in New Jersey will receive standardized information to allow them to compare and purchase electricity just like any other commodity. Included in this will be information on the environmental impacts of the energy being offered, so consumers may take the environmental information into consideration when choosing their power supplier.

Environmental Disclosure Label, a standardized label will include information on: Fuel mix, renewable energy sources; the air emissions of the generating unite, carbon dioxide, oxides of nitrogen, and sulfur dioxide, as reported and verified by each electricity suppliers; the retirement of emission credits and the avoided emissions from energy conservation or energy efficiency projects. You can see how the market forces of NJDEP's Green House Gas Action Plan and OMET tie into deregulation labeling. They are one and the same. The electric suppliers may split up their energy portfolio of power supply to produce energy products with different environmental characteristics and market them

independently. Low emission products can be thought of as Green Power. To qualify as Green Power product, emissions of all the listed air pollutants would be labeled below a benchmark level. I'll get to benchmarks later. One of the key points in the legislative mandate to prevent adverse environmental impacts is the flexibility built into the law to potentially add any other air pollutant. Both the BPU and DEP must make a finding of need and establish the availability of data in order to proceed. Renewable portfolio standards, let's turn to the second major component of legislation, renewable portfolio standards. The overhead shows the current fuel mix percentage for the Pennsylvania, New Jersey, Maryland control area. Note the high percentage of nuclear fuel usage, 34 percent, and the even higher coal, 45 percent, usage. Oil, gas, hydroelectric, and waste to energy, or methane to energy, the remainder. Over the next 25 years, the decommissioning of nuclear power plants may result in a shift, upward in emissions associated with power generation. If that replacement energy is coal-fired plants, from predominately out-of-state facilities upwind of New Jersey, our

baseline air quality could be negatively impacted. That is why the OTAG recommendation by the state's and EPA's SIP Call is so critical to New Jersey. Natural gas will also play a significant role with 3100 megawatts already in the permitting process and another 1500 megawatts on the way. I believe this is good news for New Jersey air quality. Still, other alternatives are needed to ensure that the power brought on line is clean power. That's why the Renewable Portfolio Standard is so important. There are incentives in the law to encourage development and implementation of clean, renewable energy sources. The incentives include funding projects through a societal benefit charge. Currently, the BPU, in consultation with the DEP, is undertaking a comprehensive resource analysis to determine the incentive funding levels for Class 1 renewables and energy efficiency programs. The goal of this analysis is to insure that we encourage the most effective strategies for obtaining clean power. The law establishes two classed of renewable, and these definitions allow us to align with other states such as Massachusetts and Connecticut. Class 2

renewables are currently economically available, while class 1 renewable will, in some cases, require assistance to be fully commercialized. This funding for assistance to fully commercialize class 1 renewable technologies starts at 25 percent of the current Demand Side Management funding and will increase over time to up to 140 million dollars per year. There is no funding assistance for class 2 renewables. The renewable energy portfolio standards for class 1 and 2 technologies as provided by law reflects the backloading of the more technological challenging class 1 renewables. The standards for class 1 renewables will increase at 0.5 percent in 2001 and increase to 4 percent in 2012. Assuming energy demand will increase at the current rate in New Jersey, renewable energy will provide 800 megawatts of power by 2012. This is comparable to the total megawatts provided in both Massachusetts and Connecticut deregulation bills, although the actual percentages are different. This funding assistance should help energy suppliers meet the renewable energy portfolio standards. Another incentive, known as net metering, will allow

small residential and commercial customers who generate electricity, using wind or solar power for their homes and small businesses to reverse energy to the power grid and to be paid for this generation. Emission portfolio standards, the third and final major environment component of the law. New Jersey will be put in a challenging position to attain the new 8 hour ozone public health standard that has been adopted by EPA. Our current attainment state implementation plan shows, even after implementation of the NOx OTAG SIP Call by USEPA, and the Ozone Transport Commission's Phase 2 and phase 3 NOx standards, that obtaining this standard will be difficult. Air quality is improving, and the attainment State Implementation Plan demonstrates attainment with the one hour ozone standard. Our challenge is to achieve the further emission reduction needed to attain the 8 hour standard. As a guiding principle, these emission reductions would ideally be enacted by the federal government on a nationwide basis or at the very least, regionally. New Jersey is committed to move forward with its standards in tandem with its neighboring states. The new legislation

helps us to do so through the concept of Emission Portfolio Standards. Both Massachusetts and Connecticut have enacted energy deregulation laws and both contain Emission Portfolio Standards. We have been working with those states to develop consistent principles for which regional emission portfolio standards can be enacted. Indeed, the required model Emission Portfolio Standard is one of the options BPU has proposed for the benchmark that will be used for defining Green Power for environmental disclosure purposes. The overhead illustrates this option, and the model emission portfolio standards are compared with the current PJM average. I think we must all recognize that the road ahead will be a challenge for New Jersey. Modifying the current fuel mix will require a major commitment to new clean technologies. Renewables, energy conservation and innovative technologies for cleaner gas, oil, yes, even coal, will require major investments from all of us, government private industry, and the public. I believe we are up to the challenge and when all is said and done, we will enjoy cleaner air and water in New Jersey and will have no regrets about the commitments that we're

making today. Thank you very much.

MR. BERKOWITZ: Are there any questions from the council for the commissioner, please?

MR. PALMER: What is the reason that there's a lot more potential from that pipe shark in the commercial area than there is in industrial?

MR. SHINN: I think when we--there's more potential unknown than there is known. And when you go into the different areas when we try to put our inventory to match the pie chart, we can schedule a future session we can talk about what the actual reductions. I think we're going to see certain areas of the pie chart where there's a lot more potential, but this concept is really driven by the four elements, energy conservation, innovative technology, pollution prevention, recycling are the four drivers behind this program. Some can be more successful than others. And where the success is resulted in increased reductions, could very well be the commercial residential section because a lot of emissions come from the two categories that you saw on the chart. So if we do a good job on our education program, you'll see better results in

those areas. It depends what kind of technology emerges, what kind of by-ins we get from the programs and what kind of incentives we can produce to get participation. And tell the public that you can make a difference in your purchases, particularly in the two cycle engine area, and that goes from lawn mowers to weed whackers, to outward motors. There's a lot of emissions in those kind of areas, how we can impact those is still a little bit of a question mark, but certainly they're one of the targets of this program. So I agree with you. I think we'll see some areas that exceed our expectations, and hopefully, none that are lower than our expectations, because I think we've got a pretty balanced approach. And I think depending how we marshal our resources, will sort of determine how we are in 2035 when we look at our mid course direction. But I think if we arrive at our three and a half percent reduction at 2005, I think getting the rest of the way will be relatively downhill, if you will. I think the additional three and a half percent to meet the goal for 2012, we'll be in pretty good shape to achieve. But the connections and the linkage to

both air toxics and other clean air act mandates are really striking as you go through this inventory and apply the technology piece. So we're pretty comfortable with the program at this point. It's still developing at a pretty comfortable approach. Thank you all.

MR. BERKOWITZ: Further questions? Thank you very much for your time. One request, if we can have copies of your overheads, we'd appreciate it very much. Our next speaker is Richard Bagger, prime sponsors of the electrical deregulation.

MR. BAGGER: Good morning. I appreciate the invitation to join you at this hearing today to talk about the environmental aspects of the energy deregulation legislation and how it impacts clean air in New Jersey from a legislative perspective. Let me begin by congratulating the Department of Environmental Protection Commissioner Shinn for the steps that have been taken to improve air quality in New Jersey generally throughout the past six years that I believe you've been commissioner. Overall, air quality in New Jersey has been improving. And in 1998, there were fewer

unhealthful air quality days than there were in previous years. Some years we had more than 30 days during the year, the equivalent of a month per year, when the qualities of our air in New Jersey was unacceptable. Last year that number was greatly reduced and our state met air quality health standards throughout 1998 for four of the six major air pollutants, the two exceptions being ozone and total suspended particulates, but the record shows progress as measured in the quality of our air, and that is something that we should be grateful for. That is the result of a coordinated effort on the government and industry, the air pollution from both industrial sources and mobile sources has been reduced as a result of more efficient manufacturing processes, the removal of pollutant source materials, and improved methods for removing containments before they're released to the air. In this decade we've seen significant reductions in industrial emissions in New Jersey of two types of smog forming pollutants, VOC's and nitrogen oxides, NOx. And in addition, federally mandated acid rain controls sulfur dioxide in New Jersey and neighboring states. So progress has been made.

And progress has also been made in New Jersey as a result of very strong air quality standards that exist for the generation of electricity in our state and they're understandable concerns that exist now and existed as we were fashioning the electric deregulation to make sure that the progress we have made in this state in a totally regulated system for the electricity was maintained in a deregulated environment. That posed quite a challenge for the legislature in fashioning the electric deregulation legislation. Whenever this issue came up, I always took great pains to make sure that people understood that prior to the enactment of this legislation, electricity was competitive at the wholesale level. The result of this legislation is that electricity is competitive at the retail level. The electricity used in any of our homes or businesses or government offices in New Jersey, may already have been generated outside of New Jersey, not subject to New Jersey's air quality standards. Because that power was purchased in the wholesale marketplace at the best wholesale rate available through the PJM power pool. The change that we are making now is

that there will be retail choice for electricity, because the same issues of so-called dirty power from outside of New Jersey existed in the wholesale marketplace that now we are trying to confront in the retail marketplace. Commissioner Shinn spoke about the provisions of bill that I'll just touch on briefly, and that impact environmental issues and they fall under three categories; consumer disclosure, because of the actual power of consumer choice at the retail level will allow individuals in New Jersey to shop around for clean power, something they didn't have the choice to do before, when the decision was being made strictly in economic terms at the wholesale level and they had no retail choice. The second is the authority that exists under this legislation for the board of public utilities to create emissions portfolio standards. And the third are the mandates imposed by the legislation for renewal energy, and I'll discuss them each briefly. The new legislation requires that everybody who sells power in New Jersey, both the utilities and their competitors, the competitive power suppliers, will be required to disclose on their bills,

their contracts and their marketing materials, a uniform set of environmental characteristics, including fuel mixes and emissions, so that individual consumers will be able to buy green power if that is what they choose to do. To implement this, because this is harder to do in practice than it sounds, we are requiring and have required the board of public utilities to adopt standards in consultation with the DEP to implement these disclosure requirements, including a methodology for emissions disclosure based on output in to our air of megawatt hour and bench marks to allow consumers to perform a meaningful comparison between suppliers because that can prove to be quit difficult in practice, and a uniform format for disclosing the emissions, which is graphic in nature and easily understandable. What comes to my mine is when you buy a new car, there are standards for the uniform reporting of miles per gallon. And I hope to see a similar easy to understand and uniform measure of environmental quality of the energy that we're purchasing in New Jersey. And we've required the BPU to implement that with the assistance of the DEP is going to be very

important in making that happen. Second environmental aspect of this legislation involves emissions portfolio standards, and it's two part provision. First, we have empowered the board of public utilities to adopt an emissions portfolio standard for all suppliers of electricity in New Jersey, the utilities and their competitors. They can do that now. Under the legislation, we have authorized the board of public utilities, if they make a finding that emissions portfolio standards are necessary to either meet federal clean air act, or state requirements for air quality, the board is empowered to put in place emission portfolio standards which will set a floor in terms of environmental quality for the--for all the power sold in New Jersey. The second provision in the new law that relates to an emissions portfolio standard is a provision that we borrowed from the Connecticut legislation to deregulate electricity, and that is to encourage regional emissions portfolio standards. Now, our energy region includes Pennsylvania, New Jersey and Maryland, the PJM pool. So this legislation has a requirement that if Maryland and Pennsylvania move to have an

emissions portfolio standard, then New Jersey must create an emissions portfolio standard so that we have a regional standard for clean power. At potential shortcoming of this provision, and any good sponsor will recognize the shortcomings as well is the other provisions. Pennsylvania probably is not terribly incentivized to create an emissions portfolio standard, because Pennsylvania is a state in which some of the electricity that is generated would not meet those standards. So it is probably not likely that Pennsylvania, New Jersey and Maryland will create a regional emissions portfolio standard. Which, as I'll mention, I think we need to look for stronger federal action to push those states that don't have a strong incentive to raise their standards to have the federal government move states toward a higher standard. The third provision in the legislation that addresses the environment is the renewable energy requirement. And I thought it was a sensible approach in the legislation to separate different forms of renewable energy into class one or class two. Class one is the classic renewable energy sources, the solar, I'll call

those the pure renewable energy, and those enjoy a favored status under the legislation. And, in fact, the renewable energy from those sources is required to increase by half a percent each year through the year 2,000--excuse me one percent of our energy by the year 2,006. Class two is hydro power and also waste to energy. And that class two, while it's not pure renewable energy, does give a somewhat favored status to the electricity generated by resource recovery facilities in New Jersey, which we're, after all, essentially mandated by the State of New Jersey and the Department of Environmental Protection during the 1980s and by assuring a market for the electricity generated by those resource recovery facilities helps with another environmental issue our state is facing and that is our solid waste, crises may be too strong a word, but the response of the state to the overturning of the system and solid waste regulation that have been that place for twenty years.

MR. BERKOWITZ: Three minutes Assemblyman .

MR. BAGGER: Okay. The last provision of the legislation that pertains to environmental quality is maintaining current funding for energy

efficient programs and requiring that of that existing funding at least 50 percent be dedicated to new energy efficiently and renewable energy programs. Right now New Jersey residents make the highest per capita commitment to clean energy, any consumers in the country we have the highest per capita charges on our bills for clean power. And this legislation continues those investments at current levels. There were those who asked us to increase the level of commitment in rate payers bills to clean energy, but a part of our effort here was to lower the cost of energy in New Jersey. So we simply maintained the commitment at current levels, which, after all, is the highest level and is about three times the per capita in the state of California, which is the second highest investment of any state in the nation. Let me just conclude by endorsing a call for stronger federal standards in this area. We have very high standards in New Jersey, many of the generation plants in other parts of the country are old and fueled by coal, would not satisfy New Jersey requirements, anywhere close to New Jersey air quality requirements, but yet we already are faced with

the environmental problems from those plants because the pollutants are carried into our state. With the national movement towards deregulation of electricity, it's more important than ever that the federal government requires standards that match New Jersey's demanding air quality standards, and that they be national standards. I know the New Jersey DEP and Governor Whitman advocated stronger federal standards at the national level. This passed September the environmental protection agency issued an order which controls midwest power plants. That's an important, very significant step in the right direction. And we just need to if continue to be vigilant in persuading the federal government to make a clean air standards for all states that meets New Jersey's existing high standards for air quality. Thank you very much for the opportunity to speak this morning.

MR. BERKOWITZ: Any questions from the council?

MR. MANGANELLI: I have one.

MR. BERKOWITZ: Dr. Manganelli.

MR. MANGANELLI: I gather in the bill that a municipality can pull together the energy

requirements of the town and it seems trying to get better prices, as well as, I just read recently, that some school districts also intend to do this. I was wondering whether there was conflict of that. And the second part of my question is, you also have in your bill about public education program, I'd like to hear a little bit about how that's going to work.

MR. BAGGER: Those are two different issues. The first is demand side aggregation, the legislation permits, essentially any association or government entity to be an aggregator, to pool together voluntarily groups of consumers to get the buying power and the free market of a large consumer. So the aggregator could be a municipality for its own facilities and for participating residents in the community. It could be, for example, the New Jersey school boards association on behalf of all public school districts in New Jersey. It could be a business association on behalf of all the member businesses and industries. It could be conceivably an association of individuals like the AARP on behalf of a group of individual residents. We have created a system where we may

have multiple aggregators continuing to sign people up to be in a power pool to get a favorable rate, which I think is one of the very advantageous provisions. The second thing you mentioned is a program that is required of public education because this is a significant change in how all of us have interacted with our utility and how all of us have thought about electricity. So we have directed the board of public utilities to undertake a consumer education program in order to prepare all of us for a competitive environment that is going to begin this August.

MR. BERKOWITZ: Any other questions from the council? If not thank you very much for all your efforts and thank you for being here today.

MR. BERKOWITZ: We'll skip over Assemblywoman Murphy. John Wisnewski.

MR. WISNEWSKI: Thank you. I'd like to first thank you and the council for the opportunity to appear here today and at least make my views known on the impact that energy restructuring, and that's what it really was restructuring, not deregulation has on our state and its environmental quality. It's unfortunate

that when we looked at restructuring, deregulation, whatever you'd like to call it, that it was looked solely as a means of reducing electrical rates for the people of the state. And a lot of other implications of restructuring were not even primarily considered in the passage of the bill. And in saying that, I do not want to take away from Warren Pune, in any way, the hard work that my colleagues like Rich Bagger, Paul D'Catano, Carol Murphy and a whole host of other member of the assembly had in putting together the energy deregulation restructuring bill, because it was a mammoth task. And invariably, in a project of that size, all of the aspects that should be considered probably aren't. And I, as one member of the assembly, along with many of my colleagues, had urged that the legislature take a much slower approach to restructuring so that many of what the, may become unforeseen issues of restructuring, could have adequately been addressed prior to final adoption of that legislation. Certainly the one issue that brings us here today is the impact that restructuring has on air quality, environmental quality in this state. And

although the prospects of cheaper power is something that the industrial, the commercial, the business community of this state welcomes, it is something that the environmental community has often held in perhaps somewhat disbelief that we could have cheaper power and at least a status quo in terms of our environment. The whole notion that we can open up or markets to competition for electricity presupposes one very important fact, that there is cheaper power else where that can be purchased and transmitted to this state. Indeed, if that weren't the case, there would have really been no compelling argument to deregulate, to restructure the markets, because it wouldn't have provided any economic good, it would have just simply been an act of legislatures changing the periods and the commas in the law but not providing anything. The issue was driven by the fact that there was cheap power. That cheap power does not come from New Jersey, it comes from out of state. The cheap power coming from out of state is generally generated with far dirtier standards than we have here in New Jersey. Thus, the question that is raised by many critics of the legislation is that

in trading off cheaper power, are we there by giving up environmental quality that so many people have worked for in this state for several decades? And the answer has to be invariably, yes, that one of the consequences of this will be that by making New Jersey the destination market for dirty power for the midwest, we are going to be adding to the NOx and VOC's in the air that we try to keep out. Now in the legislative debate, we tried, members in my caucus tried to sponsor legislation that would have done a couple of things. Certainly would have required labeling of the power, that was done, you have to know what components your power has. We also wanted to provide an economic disincentive so that dirty power from out of state was no more economically advantageous than clean power within the state. Unfortunately, it had that dirty word attached to it, tax. The members of my caucus and myself and a whole host of other members proposed that dirty out-of-state power should have a higher tax imposed on it so that we can at least put that power on an equal footing with instate power. It would have the purpose of doing a couple of things, providing an economic disincentive for

that dirty power. But also, putting the New Jersey producers on an equal footing. Certainly, if you can buy power out of state at ten, twenty or thirty percent cheaper than you can get it instate, instate producers are going to be at a disadvantage from those out-of-state producers. And ultimately, if you take those scenarios and play them out, we will be loosing business instate for out-of-state interest. That did not happen. But I think we need to look at ways of making that happen. Certainly, it is true that no matter what we do in New Jersey, those plants will continue to exist. But somebody has to take the first step. And there is a notion out there that if we propose legislation, that if several states were to take the step to do this simultaneously, we would achieve the end of limiting the amount of dirty power. The problem is, is that everybody has a you go first attitude. So New Jersey will say to New York, that's a great idea, you go first, we'll follow, and Pennsylvania, and ultimately it doesn't happen. Somebody has to be the leader. New Jersey, for the last several decades, has been a leader in the northeast on environmental quality

and environmental standards. I would argue that we should continue to stick by that, and I know that while it may, in the short run, produce some greater costs--or I shouldn't even say that. In the short run it would eliminate some of the savings that people could obtain through deregulation. In the long run, it's going to provide much greater economic good because it's going to not only protect our environment, but it's going to place the producers in this state on an equal footing with the producers out of state, and that means jobs and that means economic opportunity and activity. And that is certainly something that was ultimately the goal of the deregulation bill. Let me conclude by thanking the Council once again for the opportunity to be here today. I always appreciate any effort to share views on this. A lot of people, at the end of the day weren't happy, and many people say if everybody's unhappy with about a bill, it must be a pretty good compromise. I think all things being equal, it's better than where we started, although we have much work to be done.

MR. BERKOWITZ: Questions from the

council?

MR. MANGANELLI: This disincentive tax that you will put on, will that provide via disincentive for industry commercial to come into and develop here in New Jersey.

MR. WISNEWSKI: Well, it certainly could be viewed as a disincentive to come to this state, but it's not changing any of the requirements we have already. So if you're company that wants to build a merchant plant in New Jersey, that tax is not going to effect you because if you're going to locate to New Jersey, you're going to have to meet all of our requirements to begin with. It may, in fact, have the added benefits of helping you competitively because those competitors out of state that might be able to generate more cheaply are going to be forced to bare some of the costs that you have to bare to meet the environmental standards in New Jersey. Thank you Doctor, thank you.

MR. BERKOWITZ: Any other questions? Thank you very much, Assemblyman I appreciate it. There will be a lunch break. I've been informed there will be a lunch break, and that will be at 1:00 so you can plan accordingly. Assemblywoman

Carol Murphy is not with us yet so we'll move along to Elizabeth Murray. Is she present? Chief of Staff for BPU. Is there a member from BPU who wishes to present testimony?

(No response)

MR. BERKOWITZ: Is Glen Weiss in the audience?

MR. WEISS: Yes. Good morning. I'm on a little sooner than I thought. On behalf of the PJM Interconnection Organization, I would like to thank you for this opportunity to testify at this public hearing on the New Jersey Clean Air Council. PJM was founded in 1927 and has evolved over seven decades as the commercial and regulatory environments have changed. PJM is responsible for the operation of the largest centrally dispatched electric system in North America. As the nation's first fully functional Independent System Operator, PJM ensures the delivery of electric power to over twenty-three million people in Pennsylvania, New Jersey, Maryland, Delaware and the District of Columbia. The PJM Open Access Tariff, approved by the Federal Energy Regulatory Commission, has authorized the PJM Office of the Interconnection

to operate the bulk high voltage transmission system that is owned and maintained by the PJM regional transmission owners. This high voltage transmission grid consists of over 8000 miles of high voltage transmission circuits, which interconnects generators to load centers throughout the PJM service territory and to the eastern half of the United States and Canada. The PJM operations control center administers bid-based wholesale markets, in which participants buy and sell electric energy and generating capacity. PJM coordinates the operation of 540 generating units within the PJM control area for a total of over 58,000 megawatts of generating capacity. PJM's market participants buy and sell electric energy from the generating units located within the PJM service territory and from other areas of the United States and Canada. Through this continual shopping for power in the hourly spot market, PJM facilitates a competitive and robust energy trading market. Thus, some of the energy consumed by New Jersey customers may be purchased from generators in other areas of the country or New Jersey generation could be sold to other

areas of the country. Participants in the PJM markets now exceed 130 members representing every segment of the electric power industry. Membership includes investor owned utilities, independent power producers, federal power marketers, transmission owners, load aggregators for retail choice and other users of electric power. PJM's market has become one of the most liquid and active energy markets in the United States. PJM is respected throughout the world as a leader in the use of advanced technology to support this robust and nondiscriminatory and competitive energy market. The average monthly purchases and sales within PJM are nearly nine million-megawatt hours. A growing number of these energy transactions are purchases of energy from external generators and sales of energy for consumption outside the PJM territory. In 1998, the marketplace became increasingly deregulated, making it more important for PJM to rapidly adapt to changes and be responsive to the needs of the marketplace. PJM maintained a competitive environment that offered an efficient energy pricing model and equal opportunity for all providers regardless of size. Three of the most

notable achievements in 1998 were: 1, initiating the nation's first location specific energy pricing system called Locational Marginal Pricing better known as LMP that allocates transmission congestion costs fairly among all transmission customers. Two, facilitating Pennsylvania's Retail Choice program, which helped the end user customers select their electric providers. Three, developing a Visible Capacity Market to give retail choice providers of all sizes greater flexibility in meeting generation capacity requirements to serve their load responsibilities. Expanding on a yearlong customer choice pilot program, most of Pennsylvania's end users gained the right to select their electricity providers as of January 1, 1999. This choice included at least--in my notes I have at least one, but it's three, providers of green power. These developments had significant implications for the electric power industry. The PJM Office staff worked closely with members and regulators to facilitate implementation by: One, providing transmission and market access for new companies, enabling smaller utilities to acquire adequate capacity to

compete. We track dynamic shifts in service responsibilities as consumers exercised their choice to select electric suppliers. And finally we accommodate the needs and views of a rapidly expanding list of PJM members, which included establishment of the End-Use Customer voting sector representation. I hope it's clear from my statements that PJM Independent system operator is about choices. The PJM energy market in the last two years has undergone many changes to allow participant choices for energy transactions on both wholesale and retail basis. How will deregulation change New Jersey's energy mix? Question one in the program. The answer lies in the choices that are available to the end users. In the coming year, PJM, in collaboration with state regulators and market participants, will continue to develop innovative solutions to meet upcoming challenges including the introduction of Retail Choice in New Jersey, Delaware, Maryland, and parts of Virginia. Thank you again for this opportunity.

MR. BERKOWITZ: Thank you. Questions?

MR. ZONIS: Mr. Weiss, I think that the PJM Interconnection does a marvelous job of meeting

what it's considered to be. But I also think you don't have anything whatsoever to do with the subject of this hearing, because PJM provides economic dispatch, and I don't think you pay any attention whatsoever to the environmental consequences of the movement of one megawatt hour of power. Certainly, you're necessary so that providers of green power or relatively high quality power can be made available to the high voltage grid that you supplied. But is there anyway for PJM to assist in the subject of this hearing? How can you have a positive impact with respect to the electric utility deregulation on New Jersey's environment? Because it seems to me I am failing to hear any contribution that PJM is making to the basic problem. That you're helping to transport power, no question, I think that's fine and that's a necessary part of it. But the consumer in New Jersey is not going to be any better off. And considering the 540 generating stations that you called upon, how is that going to help those of us who are consumers here in New Jersey make the choice that we might care to make?

MR. WEISS: Excellent question. Part of a

successful retail implementation, I guess in any state, you have to have an infrastructure on the wholesale basis, I think PJM has demonstrated that we have that. And in Pennsylvania, when Pennsylvania came to us and initiated their retail choice program, it made it much easier for them to have choices for their end users to supply electricity. One of the things that PJM did do as far as giving choices to end users, and one of those choices is to select clean power, is to provide a mechanism of doing that. As far as New Jersey goes, there is an initiative right now with the New Jersey BPU. They've come to us an asked if PJM can help become the administrator for tracking generation resource and the amount of pollutants that they put out. We're working with the BPU on that effort. We could possibly became an administrator if the agreements works out for us.

MR. ZONIS: That's hopeful. Thank you.

MR. MAXWELL: Could you elaborate just a little bit, how would you follow a kilowatt or a watt?

MR. WEISS: That's a very difficult thing to do, and that's part of the agreement. The

question he had is how do you track a red megawatt and a green megawatt, and that's a very difficult task to do. So we're putting together some information right now which was a proposal put before the BPU, I believe just several weeks ago, to try to come up with a plan on how to do that. All the answers are not known, it's very difficult thing to do. I want to mention one thing, a lot of information here I've heard them say that power's always being bought from the midwest. Now that is not necessarily true last summer, we saw a tremendous amount of power on the PJM system being sold to the midwest. In years gone by we saw generations coming in from the midwest. As markets deregulated, there was huge price spikes in the midwest. A lot of PJM generation was there, now one could argue that generation is still returning no matter where the megawatts go, the power plants are producing electricity, and they have smokestacks and the wind carries. We're there as a facilitator for the marketplace and anything we can do we would like to work with the commissions or our member participants.

MR. BERKOWITZ: Any questions? Thank you,

Mr. Weiss, I appreciate your taking your time. I understand Assemblywoman Murphy is here.

MS. MURPHY: I've not done this before so you will have to bare with me if I seem to be a little nervous, because I am. And I think what I'm nervous about is the fact that one of the questions you just asked the gentleman from PJM, relative to what happens in other parts of the United States, what other facilities are burning what to develop energy for their constituencies. We have some control over things like that, but we don't have any real control. We can not stop the air. We can not stop the winds, and we certainly cannot stop the economy in any state in which coal development, coal mining and coal burning is an economic benefit for the people who live there. And I would defy anyone to really say that the State of New Jersey is going to pay the salaries for all the people that would be put out of work or would pay the federal government to support all of these families who would be impoverished, or even would expect us to find other jobs, other employment for these people. So I think in the sense of reality, what this bill does is the very best thing it could do,

this bill encourages other companies, other persons, other concepts to develop means of supplying the energy that we need. This bill also requires that this state support those kinds of systems and those kinds of green power producers that will come along. Does it say that we will throw out the baby with the bath water and we will say to the people of New Jersey we have freed you from high prices only to make them higher? Of course not. We're here to encourage business, to encourage economy to develop the concepts of new strategies and new ideas and I think the bill does all of that very well. The emissions portfolio is quite clear. The concepts are laid out very concisely. We have also spoken very clearly about the kind of things that we would want to see and the fact that we expect people to disclose these things to us so that the consumers, customers can make very well guided choices. But they need to be choices people can afford to make, so is the consequence there isn't any put aside to encourage the development of new ways of finding our energy and replacing our energy needs by other means. I don't think that this bill is exclusive in anyway. It is not a

bill that went after negative. It's a bill that has gone to positively, positively encourage and support better air in the State of New Jersey. Will it happen overnight? I would defy anyone to say we're going to do that. I really don't know how on earth you would do that, and I don't know how you would measure that cleanliness. I don't know what the measurement and the baseline that we are looking for honestly will ever become because it seems to me that man constantly strives to improve whatever level we have to an even higher level, and so we should. But I do not think we can deny people the opportunity to continue to life in finding good jobs, to using their minds, to create new ideas, to strategies and making them come to be while researching the environment for all of us. But I do think this bill with it's mythology, with its benchmarks, with its kind of portfolios and controls is a very good thing. So, I am delighted that you had a hearing on this today. The issue of deregulation, particularly of an energy industry, which we all the take for granted, and which has probably been the most driving force to creating a movement of life, the like of which we have

never seen to allow the communication of ideas to go from the written page that someone studied 20 or 30 or a hundred years later to the instant communication where four or five people to move forward the ideas and mistakes we made along the way. I would tell you we would not be human beings if we haven't, but they are mistakes we can correct because we are human beings and thinking people. I think the State of New Jersey has gone very far in this bill. I think the State of New Jersey has done some good and right things. I will tell you gentlemen in all of the aspects of this bill I truly think that the State of New Jersey has done a better job than any state before. And I think when the end of the day comes that will be demonstrated here. And I encourage your continued support that the legislation bill has had. I will be happy to answer questions.

MR. EGENTON: Assemblywoman, we were reading an article here that mentioned a number of other states attempted this, and in 1998 and it withered, it didn't go anywhere. Do you know any reason? I couldn't find in that article the reason why it happened, what problems they faced

that we might face.

MS. MURPHY: I think one of the biggest things the State of New Jersey did that no other state has done was to address the tax issue. And I think for New York State, particularly, when they were in the middle of trying to do their deregulation, setup their consumer choice or customers choice, the tax issue came up and everything stopped simply because they hadn't looked down the line and taken the worst problem first, if you will, and addressed the baseline, the economic problem, before they went into the deregulation. The State of New Jersey did that. And I think it was one of the greatest things that this state could have done in the order of which we did. It makes our bill totally unique from any other one. Got to watch where the money goes all the time.

MR. EGENTON: I just want to make a general comment, statement, and thank you, Assemblywoman, for your leadership in ushering in that legislation. And thank you for being here today with us.

MR. MANGANELLI: This council is looking into this, of course. How can we be useful, what

kind of information should we seek as the council here?

MS. MURPHY: I think in terms of deregulation, because I'm, I guess, a bit of a futurist, if you will. I do believe that we will come to the time when our homes will be without wires, without the transmission apparatus that we now have today. The future for sure. I do believe that we will have a lot of things taking place in our state that change the whole way electricity or energy comes to us in the form that it does. I think that for all of you being involved with clean air, that's the thing you're looking at because everything you do has an impact on the air that we breathe. Anything we do that changes what comes from homes of the emissions that come from homes, the kind of things that we develop as infrastructures, these are things that will change the qualities of our air also. I think it's more subtle, but I honestly do believe it to be quite true. I don't know, beyond what you do you should be doing. I think you do a very good job and I think you look at things very clearly. I think you need to stay apprised of the kind of developments that are

coming from this, they will be vast, they will be great and they will change our economy and our whole communications system. Once again, these changes are so enormous and so fast in our world.

MR. BERKOWITZ: I have a question. One could argue that cheaper fuel equates to dirtier fuel. So if you want to drive the energy costs down, what will happen is we will be selecting dirtier fuel. One of the components of the legislation, however, is that the public should be informed as to the consequences of their action. What do you see the legislature's role in watchdogging the efforts to guarding the public education system?

MS. MURPHY: I'm going to take issue with you, one of things this bill has done is caused a stale of a lot of the older generation stations that were involved in this state. Deregulation will come to states further west than us when the impotence is there. It is the creation of new means that will change what we're doing. It doesn't have to be solar, it doesn't have to be hydro, this kind of containment, changes what happened in the air. So the question of generation, the question of coal mining, people

going away is what saves money. Will there be new system in Alaska, they have coal burning for a lot of the electricity and it's quite a different process than is used in this country today because they are newer, newer built. So technology will take the place when the commercial competitive input and the competitive chance is there. Then you will see the technology and the different ways that people use even some of the fuels we have had before.

MR. BERKOWITZ: So it's your premise is that the public education premise is not important?

MS. MURPHY: Oh, no.

MR. BERKOWITZ: So my question again is, how does the legislature plan on watchdogging the efforts of the public education efforts?

MS. MURPHY: One very small example, relative to aggregation in the municipalities. And I must tell you there concerns the consumer education package on every single level, not just one part of it, every single bit is what we're concerned about. And I have placed calls how soon it will be released and what type of information. I believe Rich Bagger was here this

morning to testify. We're clearly very emotionally involved in the entire issue of deregulation. We wish to see it made a success. Communication issues, when it was broken because they didn't know which was the better choice for a hundred different reasons, they didn't have the education. We are committed to making sure that every part of this education is there, every single part, that includes the environment as well as everything else.

MR. BERKOWITZ: Any other questions from the council?

MR. MANGANELLI: I'd like to ask the Assemblywoman, there was an article in the Ledger a while back about nuclear power that's still in the plans, what did you people see as you were going through details of this?

MS. MURPHY: Probably we all saw different things relative to nuclear power. Again, the facility, the ground on which the facility is created is quite valuable land. It brought generation into areas where we will continue to meet generation and the infrastructure, so they are very valuable places. Nuclear power has had a, certainly, a very controversial life. It does

not contain an emissions. 45 percent of the state's energy is developed from nuclear power. Do we say to people go without because we don't want to use the nuclear facilities anymore? I think, again, you have to try the marketplace on these. Quite often we are prognosticating before we have definition, a very scary place to be, but a very exciting time. So the balance is always fascinating. Thank you.

MR. BERKOWITZ: Thank you very much. Hal Bozarth.

MR. BOZARTH: Good morning, Dr. Berkowitz and members of the Clean Air Council. I appreciate the opportunity to do this. If I can figure out how this works, I'd be much better off. I'm here today in a dual capacity, one as the executive director of the New Jersey Chemical Industry Council, comprised of folks that you all probably can guess who they would be. Dr. Zonis could probably guess who they are. And secondly, as the spokesperson for the Coalition of Competitive Energy, which was one of the primary movers and shakers, if you will, in the just-finished deregulation battle that the assembly people talked so eloquently about. And

Assemblywoman Murphy was an amazing asset for everyone in the process to have. She not only has a dynamic personality, but she see really can crystallize points extraordinarily well. I was very impressed with what she just did. She made a couple of points that all I want to do is underline. And that is the benefits of an open competitive marketplace directly related to what you will and we all are about, and that's clean air and environment. But first, why all of a sudden was there a push to free up monopoly systems that have been in place for almost a hundred years? Here's the answer. My friend in public service loves this chart. The states in red are all states with lower prices for energy than New Jersey. The state in yellow is New Jersey. It has rates on average 50 percent above the national average. That's why we went through deregulation. It was clear that one of the competitive pressure points for business in New Jersey was the high price of energy. And so deregulation had at its core the primary function of lowering the cost of this exorbitantly high energy. But there was another benefit to it in an open competitive marketplace, you have to

remember, this marketplace had been similar to those in Russia and Eastern Europe, closed for a hundred years. No innovations other than the attempted nuclear, no innovations in billing, no innovations in environment improvement. In fact, if you look at the air inventory for our coal fired plants here in New Jersey, you all in the Clean Air Council would be shocked to find out that they are probably as bad as, if not worse, than our bad friends in the midwest that we cry that that their air will be coming over to New Jersey. So that's something that I think is going to change because of the open competitive marketplace. A couple of facts, 89 percent of the midwest coal fired plants now are capacity full, 89 percent. With the addition of deregulation in New York, Massachusetts, Pennsylvania, New Jersey, Maryland, just Delaware three weeks ago, any additional capacity that's going to be utilized in the midwest coal fire plant is going to be taken up by people in the marketplace now, not New Jersey. And guess where, if that air is dirty, it's going to go? It's going to come this way. So the worst case scenario, from my point of view, is to not get

any regret of these exorbitantly high rates and still after that air, whatever it is, coming in to New Jersey. To me that's a lose/lose situation. You're stuck with your monopoly supplier's charging you the seventh higher rates in the country and the air is not getting any getting any better. Optimistically, here's what a free market will did. We've already seen independent power producers being encouraged in New Jersey, and we know that their technology is at least 20 to 30 percent times better than the existing technology of the monopoly suppliers here in New Jersey. That means if you all did nothing but encourage the existing independent power producers in New Jersey to expand their operations, we can clean New Jersey's air. Here's another thing that you should know, all sorts or new technologies are coming forward Allied Single has something called a turbo generator. It's about the size of up to about here and maybe six or eight feet in. And because of its new technology, it can supply a supermarket, a hospital, take them right off the grid from all those coal fired plants in the midwest, do it cheaper and do it extraordinarily

cleaner. That's what Mrs. Murphy was talking about, about what happens with new technology when marketplaces are open, good things begin to happen. And one of the benefits here is the good things are going to happen to the environment, because we'll get away from the old coal fire plants that New Jersey is so fond of calling their own. If you came in on 129 today and you looked left, you saw a stack about 200, 300 feet tall. And if you were unlucky today, you saw the emissions from that stack and it was red, reddish/brown, I come that way every morning, it's a coal fire public service plan. If you compare all the existing instate utility emissions to all the emissions instate to chemical companies, which one do you think is larger? It's not the chemical companies. So if we encourage new technology, and if we encourage the divestiture of these polluting coal fire plants here in New Jersey, we can make an immediate improvement in the air. Dr. Manganelli asked what could the Clean Air Council do in order to help, and I have a couple of specific suggestions, I know my time is running short. Number one, for safety idea of imposing a tax.

Taxes are regressive ways to change behavior that never really works. If you watched your history anywhere in New Jersey, you'll see, number one, people don't like taxes. Number two, they really don't change behavior. So I don't think that's a solution to the air problem as you all are afraid that exists. Second thing you can do is embrace the open market situation, the utility deregulation, write a letter to Herb Tate in the board of public utilities, and demand that the marketplace that they're now in charge of is open as far as it can possibly be. Demand number two, that utilities be forced to invest their coal fire polluting assets here in the State of New Jersey. And three, demand that the shopping credit, which is in the bill, be allowed to be expanded, which they have the authority to do, so that we all can shop for somebody else's power. The bill calls for, after three years, a ten percent reduction in New Jersey rates. Hallelujah, isn't that wonderful. Remember we're 50 percent above the national average. Ten percent is good, but remember what our goal is. If the shopping credit is large enough, we'll be able to buy power from a whole bunch of different

sources. So the benefit for us, financially, could be significantly more than ten percent, that's really good. Here's the next thing you can do. You can make sure that the Board of Public Utilities does everything in its power to oppose what the legislation gives them authority to do, and that is to put something in place called execute. My friends in the monopoly supplier community during the legislative debate said, oh, we can't have all our customers leave because if we give them a real open marketplace, guess who they wouldn't be buying their energy from and so the utility said to keep them in so we don't lose our customers, we have to have an ability to apply an exit fee, so that anybody that leaves our system has to pay us a charge because after all we built these coal fire polluting plants. So I think the legislation is worded in a way that no exit fees are an immediate threat, I think you should write to the board and say, never ever impose an exit fee. Because if you impose an exit fee, then people won't leave the system, they'll be stuck with their extraordinary high cost, number one. And the air won't get any cleaner, number two. So

you don't want people stuck in the monopoly. You want people to shop, give them the opportunity to buy from Green Mountain Power, give them the opportunity to buy from an independent power producer who's now in the marketplace. Give them an opportunity to put a 20 million dollar cogeneration facility in their industrial plants so that their rates can go down. All those things will increase the quality of air in New Jersey. And that's the benefit of an open competitive marketplace. We're looking at the world from the old paradigm, only one supplier and you only buy your gas and electric from public service, that is the old paradigm. There's been a fundamental shift, as Mrs. Murphy said. And it's more than just a quick little shift like most legislations, this is cataclysmic in the way the world will look five years from now. You will have the choice of buying your energy from whoever you want. You'll be able to shop on price, environmental cleanliness, as long as we make sure there's truth in advertising. Or you can stay with your monopoly supplier because you like the color of their trucks or whatever your reason might be to pay 50 percent above the

national average. If you want to do that, that's certainly your right in America. But you ought to embrace the content of an open marketplace and the ability to shop and do the right thing for the environment. Thank you very much.

MR. BERKOWITZ: Dr. Manganelli.

MR. MANGANELLI: I like your map.

MR. BOZARTH: Thank you. We had a lot of success with it in the legislature.

MR. MANGANELLI: I see there's a yellow one and a white one, too.

MR. BOZARTH: Yes.

MR. MANGANELLI: But why does New Jersey have this higher rate for energy than anybody else?

MR. BOZARTH: That was a question we continually asked in the legislative process, and the answers were pretty much as follows, the devil made me do it, charge higher prices. We're paying too much for sociatial benefits that are included in our costs, and there's truth to that. And we just can't do it any cheaper. One of the problems of the high price of electricity in New Jersey in the last couple of years has been, quite frankly, that the folks who run the

nuclear plants can't get them to run on the average fifty percent of the time, so they have to buy replacements power for that. So the cost of operation--you have to remember, in a monopoly situation, it's not like a chemical or a pharmaceutical company, people aren't worried about the marketplace, their customers never leave. So consequently, our prices in New Jersey have soared expeditiously. Given the fact that nuclear plants don't seem to be able to run right all the time, that's another hump, plus we put a lot of taxes and I'll certainly admit to that. But it's clear that our neighboring states have significantly lower rates and they're moving to a deregulated energy economy, so their rates are going to go down. This is an old map, New York is now down below nine cents rather than eleven cents. Pennsylvania and Delaware are now significantly lower. So from an economic stand point, we're losing the battle for competition for jobs because energy is such a large part of the component of most manufacturing jobs. All of you are aware that in order to have a vibrant economy, somebody's got to make something. You have to add value to a product to make wealth.

You can't just service something that's not there. So in order to keep New Jersey's economy vibrant, I submit you must make sure it's people who make things, want to stay here, rather than go to one of these other 49 places where it's cheaper. Constant tug and pull but, Dr. Manganelli, that's basically the point. The open marketplace never existed for these monopolies so there's never been any push on price. Every rate increase ever requested by any utility in the State of New Jersey for the last hundred years, every single one, has been approved. There has never been a rate increase denied, that I'm aware of. There may have been a reason in 1911 to have a monopoly situation for energy supply, and I'm sure back then Tom Edison and the boys knew what though were doing, but that's a long time ago. It's time to shed this dinosaur.

MR. BERKOWITZ: Mr. Bozarth, you said you welcome an open competitive marketplace, and let people select as they may based on fair advertising. What's your view on how it's going to be represented?

MR. BOZARTH: Well, one of the things I worry about is that every new supplier in the

State of New Jersey will say my energy's green. And we've testified to the board and the legislature to make sure that we have a good definition, as Mrs. Murphy eluded to, about what green really is. If you're going to sell on price, fine, if you're going to sell on green, let's all decide what the fair definition of the problems are. About three years ago a fellow came to me from Kentucky, an energy marketer, and said he can supply all 105 member companies in the chemical industry council at that point of time for energy industrial rate at about 2.3 cents a kilowatt hour, now nine cents a kilowatt hour in New Jersey. I said, how in the world can you do that? He said, the marketplace is vibrant enough to allow me to get electrons into the manufacturing plants for a hell of a lot. He said something that stuck with me. He said in ten years and probably before, you will go to your Acme and sign up for your energy supplier as you pay your bill for your groceries. I said, that's crazy. He said because energy will become a fungible--what's the word?

MR. ZONIS: Commodity.

MR. BOZARTH: Commodity, thank you. That

people will use it. If you promise to buy your groceries at Acme, we'll give you your telephone and electric on the side or whatever the combination will be. Now, think about that, that means all my friends that shop at Acme will be aggregating themselves to get a lower price. Now a lot of people are going to mature in their thought process and they're going to say, price is not the only thing around here, I want to make sure that I'm not paying for more. I want Green Mountain Power because I believe their ads. As long as there's truth in advertising, as long as they've got a good mix of energy producing things to offer to people, I think that's great. That's the open marketplace. Frankly, that's the American way, don't just offer one thing, let people choose. That's what energy deregulation is all about, choice and lower prices. As long as we allow the exit fees to say in place, we're not going to have those things.

MR. MANGANELLI: Those industries that you represent, how are they facing this energy issue, are though going into more conservation of energy?

MR. BOZARTH: That's a great question. As

you know, because you know so many of those people, they're watching every dime. They know energy is, in some cases, 15 to 20 percent of their operating cost. So they've looked at ways to conserve. It's not a different kind of light bulb that's going to save the world here. My fear is that they will vote, in effect, with their feet, and go to the places, Louisiana and Texas, and their numbers are certainly smaller and growing smaller, where they can afford to operate more efficiently. What I think though, what you're getting at, what else will they do, they'll go to on site cogeneration, and I'll give you a couple of examples of companies that did it. One is General Motors. General Motors had an old mill built sometime, I want to say the '50's, which was clearly for electric regenerating purposes, similar to a coal fire plant, it was a dinosaur, lot of pollution, high cost, problematic. They moved to--they wanted to move on an on-cite cogeneration facility in order to cogenerate their electricity, both of which they could use at a significantly lower cost at a better hit for the environment, much lower emissions. Public service, I'd hate to pick on

you, Jim, threatened to bring them to court to say you can't leave our system with your plant in Middlesex County because that would be unfair to us because we would lose you as a customer because you pay a lot of money. General Motors, smart they are, went to the leaders of the State of New Jersey and asked for help hand Mrs. Whitman's administration said there shall be no exit fee for the General Motors plant in Linden because guess what, it was ready to be closed down. General Motors folks looked at all their manufacturing plants as you would hope they would do around the world and found the top two highest when it came to energy costs, one was in New York and the other was in Linden. Well, they just shut down the one in New York, and guess which was now number one on the general Motors list, Linden. Linden had to do something. Since it couldn't shop in the open marketplace, it invested in excess of 20 million dollars in new on-site cogeneration facility, which benefitted everybody except the stockholders of PSE&G, I guess they lost a penny or two. But I didn't see it from stock reports. So that's what people will do, they'll either buy from independent

power producers that are there already in the state, or they'll buy from out-of-state suppliers which are cheaper, or they'll invest in on-site cogeneration facilities like Princeton University did two years ago. Similar story, couldn't afford the higher rates of energy any more, invested the most money Princeton University ever invested in any capital project and put in an on-site co-facility, their cost for energy went significantly down, their emissions went down, the air was better, tuition stayed a little lower, everybody should have been happy. One guy wasn't, but you know who that is.

MR. MANGANELLI: How do you feel that public education on this problem should be carried out?

MR. BOZARTH: I think public education should be done similar to what happened in Pennsylvania. Throughout, be constant on air commercials about this, we now have to choose. One of my disappointments was that the utilities are in charge for choice here in New Jersey, and the money it's going to cost, they're going to bill that to us in rates, that's a shame. You win one and you lose one. But the bottom line is

the more education the better.

MR. BERKOWITZ: We're going to have to move on. Mr. Torpey.

MR. SIEBENS: Thank you and good morning. My name is not Jim Torpey. I'm traveling as an alias. My name is Chris Siebens. I'm the manager of the regulatory problems. I manage the energy efficiency programs for GPU Energy in New Jersey. Jim Torpey had a death in the family, could not attend. I wanted to start out by congratulating the legislature on a very exciting and effective birthing experience of the legislation. It is, I believe, a good framework for getting a lot of the initiatives and support in place. But as all parents know, the birthing experience is only the beginning. This morning I tried to persuade my son to go to school, despite a sore thought, that it's not always comfortable to make a commitment to progress. But committing to progress is what we have to do everyday. So it was worth going to school. And this restructuring legislation is worth complying with. As the only utility in New Jersey that has divested of generation assets, GPU Energy may contribute unique perspectives on some

environmental issues. By the end of the year 2000, the only energy supplied to our customers from plants we own will be from the Yards Creek pumped storage facility. We will buy virtually all our energy supply from generation sources owned by others. We therefore have a focus on the affordability and generation sources owned by others. We therefore have a focus on the affordability and practicability of environmental initiatives in the larger context of ongoing restructuring activities. The changes are massive, and GPU is committed to implementing them effectively and responsibly. We are extremely optimistic that environmental improvements will be realized with the Act, and with new federal emissions standards that start phasing in this year. Our comments now focus on the questions raised. Will New Jersey's fuel mix change with deregulation? The question requires some speculation on customers' choice of suppliers, but in the near term, irrespective of buying from the sources that are currently available. As new supply sources become available, and federal regulations taking effect this summer cause the economics of existing

plants to change, there will likely be a gradual shift toward cleaner sources. Will New Jersey's air quality improve with deregulation? New federal regulations start this year and phase in over the next four to five years that will reduce SO2 and NOx emissions nationally upwind of New Jersey and therefore will improve air quality in New Jersey. These regulations happen to be implemented concurrent with deregulation, but will directly impact generation on a national basis. That will have a positive impact on New Jersey's air quality. What is the State doing to provide customers information in selecting an energy supplier? According to the Act, citizens will have information on the fuel mix and emissions of suppliers that will enable them to make informed choices. Later this week, GPU Energy and other parties will comment on draft rules called for in the Act. GPU is generally supportive of energy suppliers' accountability to inform customers of what they are buying. However, to meet that objective effectively, the information provided must be valuable, understandable and credible to the market, and the administrative processes must be practicable

and economic we must take the time necessary to"do it well". As with any new product, we would strongly recommend test marketing the content and format of any product to be used. How can state government protect against emissions from less clean, out-of-state energy sources? GPU would recommend against imposing new standards on top of the new Federal regulations about to take effect. We do not see it in NJ's interest to discourage or eliminate potential suppliers by imposing additional layers of regulation. Rather, we recommend monitoring the progress of the Federal regulations, and do what makes sense over time based on that informed experience. The last two questions address the important issues of support for new clean energy sources, and energy conservation. Will deregulation provide incentives or disincentives for conservation and renewable power? GPU is committed to the future of competitive markets for distributed energy resources and energy efficiency. With respect to new clean sources, we've been actively looking for ways to introduce new sources of electricity that are less polluting than traditional central station fossil

fuel electric generating stations. These efforts lead us to conclude that one of the best ways to ensure that deregulation doesn't adversely impact New Jersey's air quality is to make renewable energy available to the marketplace. GPU's competitive efforts in this regard are based in our Technology Ventures group. Technology Ventures is the part of GPU's business dedicated to finding and developing innovative technologies with potential for being major players in the future energy arena. Technology Ventures, whose goal is to make renewable energy an integral part of energy supply, is currently immersed in various projects in the distributed generation field. Two of GPU's Technology Ventures that will make renewable energy available soon in New Jersey's energy marketplace target fuel cells and photovoltaics. The first venture is our equity investment in Ballard Fuel Cells. Back in 1996 GPU was the initial investor in Ballard Generation Systems, a company formed by Ballard of Vancouver and GPU. Ballard Generation Systems will develop and market a number of clean fuel cell products for applications ranging from hospitals, manufacturing, and telecommunications,

to providing New Jersey homes with clean, non-polluting heat and power. Our first 250-Kilowatt product will be available in New Jersey sometime next year. Our second venture is through GPU Solar Inc., a joint venture with Astropower a leading manufacturer of solar electric photovoltaic modules. GPU Solar is selling residential packaged photovoltaic systems that provide homes in New Jersey with up to 50% of their annual electricity use. A GPU Solar system installed in Lakewood, New Jersey is providing the home's residents with 48% of their winter electric use with that number likely to rise this summer. GPU Solar is also developing green power plants in California and Pennsylvania and is looking forward to the development of this market in New Jersey. With respect to conservation and efficiency supported in the Act, GPU Energy has provided a leadership role in the State in the implementation of numerous energy efficiency initiatives, and is committed to the Comprehensive Resource Analysis process currently being undertaken by the BPU. We have committed resources to provide input to this process and is making every effort to see that the moneys set

aside in the Act via the Societal Benefits Charge for renewable energy and energy efficiency measure are spent wisely and effectively. Part of the scope of the CRA process will be to explore market barriers, disincentives, to investments in cost effective energy efficiency and renewable technologies, and target resources where the barriers and opportunities are greatest. In closing, the Act will provide for many other renewable energy business opportunities if left to do what the legislature intended it to do. These opportunities will arise through implementation of this law's nationally significant environmental provisions such as the Renewable Energy set-asides in the Societal Benefits Charge and the Renewable portfolio standards. GPU believes the legislature did a good job protecting New Jersey's air quality and that these business opportunities can only be good for New Jersey's environment. Thank you.

MR. BERKOWITZ: Questions? Mr. Zonis.

MR. ZONIS: Mr. Siebens, first of all, I think GPU should be commended for participating in the fuel sell operation. You point out

earlier by the end of next year it's only Yards Creek that will supply, I guess, in-house power. And I would presume from that that you are already purchasing from remote locations some significant amounts of power here in 1999, is that not the case?

MR. SIEBENS: That is the case.

MR. ZONIS: Are you knowledgable as to what the environmental emissions are for such remote power that you purchased? That is, can you, if you have the date in front of you now, can you tell us that ten percent of your power is coming from coal burning plants in Indiana or Kentucky or someplace, do you pay attention to that now? Because I would assume you would be paying attention to it when the full effects of the new Act are enforced.

MR. SIEBENS: Thank you. In my current job, I don't know those numbers off the top of my head. As the regulations unfold, at least for the immediate future, GPU energy will be the supplier of the--the default supplier, and therefore we will have to comply fully with whatever the requirements are. I don't know the detailed, the direct response to that question

today. I know that we know our energy sources and who we're buying power from. But on a daily basis, I don't know if I can respond to that.

MR. ZONIS: It's interesting because here it is the middle of April, and I gather while these regulations are still in draft form, it's going to be the first of August that we all assume they'll be in full force and effect, and that gives you just a handful of months to develop the procedures to where these labels and what not can be provided to the public. It seems to me that GPU or anybody else that proposes to supply power to the consumers in New Jersey should be developing their procedures now so that they know that ten percent of their power comes from Pennsylvania, it's from coal, it has X pounds of SO2 or all the other standards, and we'd be starting to develop that information. I think, as I say that, I'm a little bit disappointed that you can can't tell us now that the purchases that you make are at a certain level and that come next year or 2,000 or whatever, they will be at some other level, hopefully better or not or whatever. But I would like to suggest to GPU or any of the other people

who propose to be providers in New Jersey that they get cracking on this and start to make this information available.

MR. SIEBENS: Let me make sure that you understand that I personally am not directly linked to that process, and therefore I don't know. I would be happy to respond to provide you that information and information about our capability.

MR. ZONIS: That's fine. I would appreciate that, and I would thank you if you would take an effort to do just that.

MR. SIEBENS: That would be fine.

MR. ZONIS: Thank you.

MR. PALMER: I like the efforts you're making on solar and fuel sell. The annual R&D budget that you have for pursuing solar and fuel sell technology, if you have any idea of what the number is for the all of the companies in the region.

MR. SIEBENS: I do not know the answer to that question. I'll see if I can find what it is. Internally, I don't know that we can provide it for the region.

MR. PALMER: I would say the only way we're

going to get someplace with solar and fuel sell is if we're spending enough money on R&D to really accomplish it.

MR. SIEBENS: It's an interesting point. R&D is one aspect of technologies development. Developing a delivery infrastructure that's reliable and that may support a market for the technology is equally or even more important. Photovoltaic technologies on a technical level are really pretty much available, they're just expensive. And plus, there's no infrastructure to deliver, and more importantly, maintain them and respond to the market. That may have difficulty installing these things properly.

MR. MANGANELLI: Here's something I think you would know something about. We're talking about energy efficiency, years ago we had a public hearing, we were talking about coal at the time, one of our greatest resources in this country. Has progress been made on this so we can still use this sizable amount of natural energy sources? Have you been doing that?

MR. SIEBENS: Again, that's not in my personal bag of tricks. I work with customers and their energy efficiency, whether they have

opportunities, lighting, motors, air conditioning, that kind of thing. With coal gas and those other projects, we are, as a company, contracted to them and aware of them, less so today because we're diversing in our generation focus, but, again, I'd be happy--

MR. MANGANELLI: Send us information. Also, I read where you sold unit within the Three Mile Islands, right?

MR. SIEBENS: Yes.

MR. MANGANELLI: Another outfit bought them and feel that they can do the job and yet you people considered you couldn't do the job of this.

MR. SIEBENS: It's not a question of whether we can do the job, it's whether the focus--the question is if we're getting out of generation, is that a declaration of defeat on the generation side, and no. It's a business decision to have a focus on infrastructure. On the business, transmission, distribution business, possibly gas companies, local distribution, not on the competitive energy supply that other companies have focused on.

MR. SPATOLA: I have a very quick question

I want to ask you. You're saying you're going to be changing in the not so distant future. Are you at least aware at this point whether you'd be acquiring pooled power or from sources where it's originally generated in the future so you'll know the point of generation of the electricity that you'll be marketing?

MR. SIEBENS: The question is, will we know exactly what the source of our energy is. We'll be paying off of PJM as one of our sources from other brokers according to what's available in the competitive market. You don't necessarily have the paper and the accounting to know exactly how.

MR. BERKOWITZ: Thank you. We're going to have to move on. Is Mark Brownstein here?

MR. BROWNSTEIN: Yes. On behalf of the Public Service Electric and Gas Company, I'm pleased to provide testimony for the New Jersey Clean Air Council and the impact of the electric industry restructuring on the environment as you may recall last year's Council meeting was focused on maintaining the federal health standard for ozone here in New Jersey. At that time, I testified on the relationship between

coal fired power plants located in the south and the midwest and New Jersey's ongoing air quality problems. From that testimony, you may recall a few important facts. First, ozone measurements taken by research aircraft flying along New Jersey's western border show that during a number of summertime ozone episodes, air entering New Jersey already exceeds the federal health standards for ozone. Second, over 40 percent of the total ozone affecting New Jersey's air quality comes from out of state sources. Much of this transported ozone is the result of nitrogen oxide emissions from power plants located in the south and midwest that, coincidently, operate with tall stacks and little or no environmental control. Third, unregulated power plants in the south and midwest enjoy a competitive advantage over plants in New Jersey, which have advanced pollution control technology and higher operating costs as a result. Over the past ten years, PSE&G has spent over one billion dollars, that's with a "B", to dramatically lower emissions of NOx, sulfur dioxide particulate matter, carbon dioxide and other air pollutants. We've achieved these reductions through a combination of

installing advanced emission controlled technologies on our existing generation with powering a significant portion of our generating capacity with state of the art combined cycle natural gas technology. And also, modifying our fuel profile by switching to and co-firing with gas. These steps were taken as a result of voluntary initiatives that the company undertook, and also the result of New Jersey's stringent environmental regulations. You may also recall from last year's hearing that PSE&G urged the council members to take two actions to address the problem of pollution transport. First, we asked you to express support for a federal proposal to regular power plant NOx emissions across the eastern United States. And second, we asked to you support in corporation of specific environmental protection provisions into federal and state electric industry restructuring legislation. Well, whatever you guys did in the intervening year, you did a marvelous job because today I'm here to say that substantial progress has been made on both of these issues. First, this passed September, the US Environmental Protection Agency adopted a proposal to

significantly reduce and cap NOx emission across 22 eastern states by May of 2,003. This is the first time that the federal government has taken decisive action to address the issue of pollution transport. Equally important, this action, which is premised on establishing a uniform .15 pound per million BTU for NOx emission rate for all power plants in the 22 states. It demonstrates that EPA now understands the relationship between electric restructuring and air quality. PSE&G believes that EPA's decision to take action to reduce power plant NOx emission is a harbinger for future federal action on other issues of concern, such as mercury emissions from coal fired power plants and power plant contributions. Second, the restructuring legislation signed by Governor Whitman this passed January contains a package of environmental provisions which placed New Jersey in the forefront of states seeking to harmonize energy and environmental policy. On this point, we're heard a number of speakers elaborate on the initiatives, but let me just underscore them. First, mandatory environmental disclosure for any one selling power in New Jersey. When consumers

begin to make choices this August, they will have the information necessary to choose an energy supplier based upon environmental performance. By the way, it's not just information for those companies who choose to market their product, but it's for all suppliers. An important consumer information. And in addition, consumers will have the ability to distinguish between competing plants made by different green power suppliers. Added to that are protections to make sure that when a consumer pays a premium price for a green product that they will actually get what they paid for. This is unique in the United States. We have, probably the finest environmental disclosure program anywhere in the US right now. Second important piece of the bill is preservation of New Jersey's strong commitment to existing energy conservation. New Jersey, historically, as it was mentioned earlier, has been of the most aggressive and successful energy conservation programs in the United States. The good news here is that in addition to preserving that commitment that there will be approximately an additional 120 million dollars annually each year over the next four years to finance new

energy efficiently programs here in the state of New Jersey. And as older programs begin to phase out, some of that money, in turn, will be devoted to new programs as well. This is also unique among state restructuring bills. A third important provision is that there are a suite of provisions in the bill to encourage the development of new energy resources in New Jersey. Including net metering provision, a renewable portfolio standard for all power suppliers in New Jersey, and the guaranteed source of funding. And finally, it was mentioned earlier as well, the Board of Public Utilities has the authority, in consultation with the DEP, to set an environmental performance standard when and if they reach the conclusion that regional and federal efforts to regulate power plant emissions aren't working. These provisions are great, and they're all the more impressive when compared with the restructuring programs of our nearest neighbors. Pennsylvania, for example, lacks a disclosure requirement because there's no portfolio requirement, it offers no funding for renewable resources, and requires no funding for energy efficiency programs beyond the relatively

small amount that Pennsylvania utility companies currently spends. In New York, New York requires no renewable portfolio standard and requires only a small amount to be collected each year for energy efficiency programs. And although I have not seen the actual bill yet, my understanding is that in Maryland, there's no financial support for renewables or energy efficiently. On the whole, therefore, PSE&G supports the environmental provisions contained in New Jersey's construction legislation. And we think that the Clean Air Council should be very pleased. From this point forward, PSE&G's efforts will be directed toward making sure that these provisions are implemented in a fair, effective and timely manner. We plan to work closely with the Board of Public Utilities, the New Jersey Department of environmental Protection and other stakeholders to make the various environmental initiatives in the legislation a success. I would be remiss, however, if I did not call your attention to one important piece of unfinished business related to restructuring of New Jersey's environment. EPA's 22-state plan to regulate power plant NOx emissions is under heavy

political attack. Several midwestern states joined by their utilities have sued in federal court to block the plan. Several of these states have publicly declared that they will not adopt the necessary regulations to implement the program. And Midwestern utility companies are right now walking the halls of Capital Hill convincing members of congress to intervene on their behalf by raising false claims about the effect of implementing environmental controls on the reliability of electric supply. These are false claims, but they're being used as a scare tactic. If you are an advocate of regional and federal solutions to power plant emission problems, these are, in fact, those times. Fortunately, there is something that can be done. Section 126 of the Federal Clean Air Act empowers the state to petition EPA directly when it can show that power plants or other large stationary sources of NOx are contributing to that state's air quality problem. If the petition is granted, EPA has authority to take direct action against the source that is causing the problem. This is a powerful remedy with a correspondingly high burden of proof. To date,

New Jersey has chosen not to exercise this option, preferring instead to work directly with those states having the greatest impact on our air quality, while at the same time marshaling the facts necessary to sustain such a decision should it become necessary. Should New Jersey conclude that it is now the appropriate time to exercise its rights to Section 126, PSE&G believes that the Clean Air Council should be prepared to support that decision. Governor Whitman has consistently and successfully argued for clean air in many forms and sometimes intense debates within the National Governor's Association. Commissioner Shinn has invested large amounts of his personal time and personal credibility to establish the science and policy recommendations that made EPA's 22 state NOx reduction plan possible. Without the Commissioner's involvement and the Governor's active involvement, none of this ever would have happened. They have served New Jersey's interests very well. And they deserve the Council's support, should New Jersey choose to take the next step and file Section 126 petition. I would urge the Council, on the

record, in supporting such a decision. Thank you for providing me the time to speak with you this morning. I'd be happy to answer any and all questions.

MR. MAXWELL: Back in the fall, the Clean Air Council did memorialize the Commissioner's support. I don't know if you were aware of that. An earlier speaker urged that consumers of the state write to the BPU and demand that the coal generators in New Jersey be closed. The question is, what has your modeling shown, if, in fact, the New Jersey coal generators were shut down? Because they have been under attack here from the environmental groups and so on. What would be the impact on New Jersey air as a result of their being boarded up and that power being produced from out of state?

MR. BROWNSTEIN: Let me take a step back. First of all, people at PSE&G had a leadership role in the industry in arguing that the power plants should be cleaned up as part of deregulation. We've made that argument here in New Jersey, we've made it on a regional basis and we've made it on a national basis. People within our own industry perceive that to be that PSE&G

has declared a war on coal, that somehow PSE&G is against the use of coal, that our goal in life is to shut down all the coal fired power plants in the midwest. That's not our agenda. As was pointed out to you earlier, we do want coal plants both here in New Jersey and in Pennsylvania. I think the difference between PSE&G and a lot of other companies, that perhaps you've heard from today and that you might hear from over the next several days, is that we've made a very strong commitment to clean the plant up, to improve the environmental performance. We're the only company in the United States to make a voluntary commitment to reduce our NOx emissions by the year 2,000, and we expect to make that commitment this year. Our perspective is that you can burn coal, but you have to burn it cleaner, and we're making the investment in our plants to do that. That being said, we believe that if you were to shut down coal plants here in New Jersey, that all you would really succeed in doing is importing more power from plants in the midwest, where those investments have not been made and where those companies are active in opposing federal and regional efforts

to require those types of reductions. So I have a very hard time believing that that's a preferred option. And, in fact, this argument has been bouncing around the New Jersey restructuring debate for close to the three years that there has been a debate in New Jersey. I think the legislature considered it, rejected it and those who continued to call for it are on the extreme of the debate in advocating that.

MR. SPATOLA: Just a quick question regarding the innerstate transport that brought up at the initial part of your testimony. You talked about, I think, a 50 percent number of the ozone coming in from out-of-state sources. Does your information go further than that to identify whether that's attributable to mobile sources so if one were to look at some kind of action by an agency such as EPA, that the action would be focused on the right source of the generation of the problem that's created?

MR. BROWNSTEIN: That's a very good question. And that was obviously a question that was looked at quite extensively during the OTAG process, which is the source of the data that I just presented to you. There was a lot of

questions being asked about whether the NOx and the ozone that was being transported into the northeast, what was that really from, and I think what the modeling showed is that it was, in fact, the large stationary sources, primarily power plants, which made up the bulk of that contribution. Throughout the '60s and '70s, the idea of improving air quality in Ohio and else where in the midwest was simply to build the stacks taller. So as a consequence, the pollution goes higher-up in the atmosphere and as you might expect it therefore carries longer distances, one of the reasons why in many areas of the midwest air quality meets the federal health standards, yet, 80 percent of the total NOx being emitted from power plants in the United States is coming essentially from the eastern US, tall stacks, lots of dispersion, it comes down somewhere, it comes down on us. So that was looked at the modeling and, in fact, that was the basis for OTAG's conclusion that utilities NOx reductions of up to 80 percent were necessary to address the ozone transport problem in the eastern US.

MR. BERKOWITZ: One last question.

MR. PALMER: Presumably, there's going to be some grading of power sources so customers can decide how green they want their power and so forth. Would it be at all possible to tie some bonus points on this rating system to a supplier's willingness to spend money to cleanup plants or to close down dirty facilities?

MR. BROWNSTEIN: First and foremost, the strongest points are going to come from the consumers. One of the reasons why PSE&G was a strong advocate in the bill was because we felt that when consumers had the environmental information at their fingertips, that it would empower them to make choices based on the environmental performance of the suppliers. For those who want to purchase a purely green product, the information is available and they can do that. But for those consumers who are weighing competing offers from producers who perhaps made no particular environmental claim, they will have the information at their fingertips to say all other things being equal, I see two or three other offers here that may be about the same price, but you know what, this one's cleaner and I'm going to purchase this

one. And in turn, our feeling is that as consumers exercise that type of choice that there will be a ripple effect in the marketplace. The demand will be there, marketers will go out and look for the cleanest sources of power, and in turn, that will cause demand for increased generation of cleaner sources. One of the things, going back to John's question, PSE&G has a diverse mix of fuel sources we have coal fired power plants in New Jersey, we have state of art and natural gas power plants. The natural gas plants don't run much. They're state of the art, they are some of the cleanest plants in the United States, they don't run much in a competitive wholesale environment. Why is that? Gas is twice as expensive as coal. You want to know why rates are so cheap in Kentucky, they're sitting on top of huge coal fields with no environmental regulations governing what goes up the stack. That's why prices are cheaper out there, they'll always be cheaper out there. All we're asking for is when you do bring that power to market, at the very least, it meet the same environmental standards that we would expect of any power plant located here, in New Jersey.

Maybe then, the natural gas plant can compete in a free market will have a chance to run a little more often.

MR. PALMER: Right. The customer is going to be looking at what has already been accomplished as far as cleaning up. What I was asking about, what about an additional incentive for companies that are demonstrably going to invest in something that's going to, in other words, kind of up front the credit for it based on investments that are being made before they actually achieve the improvement?

MR. BROWNSTEIN: Again, our feeling is that the best and most effective type of incentive that we're going to see is going to be a market driven one. There is going to be a demand. The fact that Green Mountain Energy is out there so aggressively right now. In fact, there's a website where you can find 15 or 20 companies selling green products throughout United States. PSE&G Energy Technologies, when our market is opened in August, hopes to be one of them. But you will find that as a result of that, there is demand for cleaner sources of power and that these companies who are offering those resources

are finding commercial advantage in highlighting their environmental performance and that in turn is translating back to demand for cleaner sources in the market. I think also the fact that New Jersey has implemented a renewable portfolio standard is going to be very important. And I would expect companies who are complying with that standard to be actively marketing the fact that they offer renewable power for sale. I think the public, generally, would like to see that.

MR. BERKOWITZ: We're going to have to move on.

MR. MANGANELLI: May I ask him a question, because I'd like to know from Mr. Brownstein, because according to what's happening and the price is going to be reduced to five percent and then ten percent over the next three years, how far can you really reduce the cost?

MR. BROWNSTEIN: Well, if you take a look, if you begin to add up all the various cost savings that are in the restructuring legislation, you'll find that for PSE&G, the reduction is about 20 percent. That's with the ten percent rate reduction, it's guaranteed.

That's with the shopping credit that consumers can exercise. That's with the tax reform package that was talked about earlier. About 20 percent rate reduction. And on top of it, you get the environmental disclosure provisions, which are state of art leading the country. One of the most aggressive commitments to energy efficiency anywhere in the United States. Renewable portfolio standards which guarantee that New Jersey will see the development of renewable resources here in New Jersey. It's a compromise, there's no doubt about it. You will always find people on the extremes of the debate, and how it's often entertaining but often times extreme. You will find people at the extremes of debate who will always say, you could have done better on this point, you could have done better on that point, granted. But as a package, the rate reductions, the environmental provisions, the consumer options that are available to people here in New Jersey, it's second to none. And I think that the legislature should be commended and I think Governor Whitman should be commended.

MR. BERKOWITZ: I'm going to stop you

there.

MR. KILLKENNY: My name is Brian KillKenny. I'm with Green Mountain Energy Resources, and they're a power supply group. I'm actually filling in for a couple of our New Jersey point people that could not make it today, but I'm happy to be here and certainly on behalf of Green Mountain, I'm happy to be speaking today. There's been a couple of references to our company. I just want to take a quick 30 seconds just to give a brief description of Green Mountain. We're a retailer of green renewable energy in California, in Pennsylvania right now, serving the deregulated markets. We formed in 1997. Right now, we probably have about 70 employees based out of Vermont. We out source quite a bit of folks, probably over 300 folks in all centers all over the country, as well as functions to supply services, market tipping, so forth. We're funded by a private capital. We originally had a link with Green Mountain Power. That has since been divested and we're exclusively a hundred percent privately owned with utility affiliation at this point. How we started was we were looking at the New England

pilot program, we really saw a definitive market or cleaner energy, and the results of our efforts there proved to be quite promising, and we look at going forward in states that are truly deregulated, and see if we can make a gaol of it. And all our marketing studies show that there's a market, but potentially a market for providing green energy. And we really saw -- the whole premise behind our business is addressing the problem of utility air pollution.

Electricity generation is the largest source of air pollution in the country. 36 percent VOC's, 29 percent NOx, 66 percent SO2. All those figures you probably heard before. I'm really looking back at the regulated utilities business. I think conventionally structured that most of the decisions to build power plants were based really solely on economics with a minimum regard for the environment.

So our premise really is to allow the customer a choice in selecting their electric service provider. And we feel that in these deregulated markets, these customers, a certain number of customers will want that choice, and will, in many cases, pay the premium that's needed to

deliver resources, such as solar and wind. So the problem is air pollution. The opportunity in the market is the energy business. If you look at just the residential electric side of it, that amounts to about 55 billion. Certainly, even if we ask another green power provider just captured a small percentage of that, over a certain percentage of states that actually go through deregulation, It's still a pretty significant market there. Certainly, looking at marketing studies of people's appetite for paying more, widely vary in studies, but the range that we felt pretty comfortable with is 47 percent of the people expressed a willingness to pay more for their electricity from renewable energy. We did our own marketing studies and substantiated those numbers. So as I mentioned, we're doing business in California and Pennsylvania. California marketers, approximately seven green power competitors in that state. Many of them are affiliated with utilities, some are not. They all have varying degrees of renewable energy contents in their mix. Some just serve commercial and industrial, many are green leaf certified products.

In the Pennsylvania market, there's probably about six suppliers that have some type of green bed to them. Of those, probably three are really truly market renewable energy and have green leaf certification.

In California -- just a couple of minutes to describe some of the activities that are going on in those two states. California started in April of 1998, just about a year now. They opened that market, such that 90 percent of customers were eligible to switch. So nearly the entire state could switch.

As it stands now, about 120 thousand some-odd customers have switched, which represents about 1.2 percent of the state total. Much lower switching activity than was anticipated, I'll get to that in a minute. Of those 122 switchers, or 120 thousand switchers, it's estimated that over half chose the green energy service provider.

In Pennsylvania, which started in January of this year, that was structured such that about two-thirds of the customers were eligible to switch, and that expand is going forward, 400 thousand customers to 500 thousand -- the numbers are dependent on who you talk to, when you ask

them -- 400 to 500 thousand customers have switched to date, and that represents roughly ten to fifteen percent of the customers in the state.

Of those switchers, again, market is early, so the numbers aren't really definitive, but numbers between 20 to 30 percent of those customers who have switched have gone to a green energy service provider.

The reason for the somewhat disparity between the two states and the activity there, in California, competitive market is based on competing on the wholesale level, so retailers have to go in and basically provide or offer a price that's competing against a wholesale market.

Pennsylvania, most people are familiar with the shopping credit issues, where they've embedded the true cost of retail service, such that it's much more of a competitive playing field, and when a customer switches from their utility. And we're certainly seeing the difference in those two approaches.

California being of one extreme, Pennsylvania being the other. We've seen a lot of activity in Pennsylvania so far.

A couple of quick notes on some of the challenges that we've been facing, certainly other competitors. First one is the issue about consumer education. Consumers generally don't know and don't care where their power is coming from. When you do a survey across the country, most people feel that 50 percent of their power is coming from hydro. You have a problem there. So certainly consumer education would be a pretty daunting task for anyone that's entering the market.

Electric energy, electrons are not even a tangible commodity. It's hard for people to grab onto it. Likewise, it's hard for people to understand that they're supporting the power plant, which gets mixed into the power pool. That's the way the market works. It's a difficult item to get across to folks. And in that perspective, it really hits home, as far as getting disclosure down. Disclosure is probably one of the key items for the market to continue forward. Without that, really, consumer confidence would really be lost and the whole market would basically flop. So certainly disclosure is a key factor, whether it's

specifically fuel source, environmental standards, certainly should be implemented to the full extent possible. Certainly other challenges are adversity to deregulation from consumers and other advocates, variation in regulatory rules, utility rules from state to state, as green power providers expand into other states. Limitations in renewable resources in the state in surrounding areas. Certainly California is known to have substantial renewable energy, wind, solar resource, hydro. PJM area is a little more limited. There's certainly no wind to speak of, so hydro is limited.

So that will effect price, and it certainly presents a challenge to folks entering those markets. And another quite daunting challenge is people's view point of what is truly green, what is not. We have the Green Organization. We have state definitions. Many environmental groups have varying opinions. Nothing's perfect. Wind has its problems, solar has its problems, hydro, biomass, they all have problems. It's difficult converting a really true consensus on what truly is preferable in the green market.

It's worth taking a minute or so to mention that

the Green Organization, in their effort in certifying independently, the green power business. They've really been instrumental in providing consumer confidence in these markets, and, likewise, it will be instrumental going forward in its success.

Furthermore, they've attempted to make definitions available on what is renewable energy and certify products that contain certain amounts of renewal energy. Likewise, they've been advocates and been pushing new content of renewable energy, particularly since developing new facilities is really where you get the biggest bang for your buck in the green power market.

That's ultimately what we'll be displacing the older and dirtier plants--

MR. BERKOWITZ: Three minutes please.

MR. KILLKENNY: And that's what it can be measured on, as far as emission states.

Furthermore, green has been instrumental in promoting annual disclosure and independent auditing among the green power providers. And certainly in California it's going on right now, because it's been a year in that market and all

the green power provider groups will be disclosing publicly, as well as going through their own processes.

So in conclusion, what it really boils down to is certainly we have stakeholders that want to see our business survive from a return perspective, and it's nice to build a business such that you can expand into other areas such as gas and other environmentally conscience products.

Where we are coming from here is those things are great, and we're going to focus on those, but the key is what we've done to the environment in quantifying emission reductions and quantifying how many renewable resources we've put on line and the amount of solar and wind and other types of premium products that have been able to bring to the market.

Thanks for your time.

MR. PALMER: Do you have any projection as to what kind of rate of growth that you can achieve as far as supplying power to the PJM grid?

MR. KILLKENNY: I have those numbers, but unfortunately I don't think I can give those out for obvious reasons. We're quite happy. Between

the two states, we have over 110 thousand customers now, with the majority of those customers being in Pennsylvania, particularly because of those issues I described with the shopping credit, the attractive competitive market.

In going forward, again, as long as each state allows some type of shopping credit mechanism or recognizes the true cost of retail service, such that it will stir and enhance competition, whether it's a green power provider or not, indications show that those states will see a lot of activity. And it would be similar, I imagine, to Pennsylvania .

MR. PALMER: You will be able to provide more power?

MR. KILLKENNY: Yeah. The way things are growing in our projections and how much renewable energy resources are available in Pennsylvania and the surrounding region, and if we enter New Jersey and Maryland, when those states open up, there will probably, likely, be a time when you really tap out your existing capacity. But that's kind of what we're doing. What we're pushing for it to create that demand, such that

once you tap out your existing resources, developers know there's a need for it, and they'll go out and find ways to bring on more competitive prices.

MR. SPATOLA: If you were to provide clean, green power to New Jersey, would you do it by way of PJM, or would you have some method of providing it to the state?

MR. KILLKENNY: I would say we would probably use a hybrid, a combination of those two processes. There's certainly some competition, kind of conventional utility owned rate based kind of facilities that we'd be able to purchase from and provide for your customer. Likewise, they would want some smaller facilities, IPP facilities, new gas development projects, new wind projects that we'll bring on line. That would be one more of a one on one type of relationship between the developer and Green Mountain.

Thank you very much.

MR. BERKOWITZ: Thank you very much. We had a couple of openings occur in the afternoon, which allows us to have a more flexible schedule in the afternoon. If you prefer to be the first

speaker after lunch, that's fine. You can go now if you want.

MS. BISHOP: I'd like to go now. Good afternoon. My name is Cherae Bishop. I'm vice president of legislative affairs and media with IWSA. Our member companies include such companies by the name of Adugen, American Refue, Western Hospital Corporate. Together our members represent 64 waste to energy facilities nation wide. IWSA facilities process approximately 85 thousand tons of waste each day and generate about 22 hundred megawatts of clean, renewable electricity, or enough energy to meet the electricity means of two million households. The waste industry offers two important benefits to customers. Safe solid waste management and disposal, as well as the generation of clean electric power. More than 31 million people rely upon our facilities to cleanly and safely dispose of the trash in their communities. Five waste to energy facilities are here in the State of New Jersey. They dispose of 63 hundred tons of trash and generate a 175 megawatts of electricity. Waste to energy facilities process nearly 32 million tons of trash each year, and generate

enough power to meet the needs of 24 million homes. More than 39 people and 31 states rely on the 103 waste to energy plants nation wide. Today's hearing is about the impact of the electric utility deregulation on New Jersey's environment. I would like to address one relatively small, but nonetheless, very important issue involved with deregulation. I'd like to update the Clean Air Council on the significant strives the waste industry has made in keeping the environment clean and safe. New Jersey is similar to numerous states in recognizing waste to energy as an important source of renewable electricity. Our industry generates about 2800 megawatts nationally or about one-fifth of America's total biomass regulation. Biomass accounts for about 1.4 percent of total electricity generated. Renewable energy total is slightly more than two percent of the nation's electricity market. New cleaning air act standards now being implemented and shared that waste to energy facilities are among the cleanest sources of electricity in the nation. For example, EPA estimates that mercury emissions from waste to energy plants will dramatically

decline by more than 90 percent over 1995 levels. New Jersey led the way in controlling mercury emissions, and we salute your efforts. Source reduction and the operation of our facilities at the optimal levels have met waste to energy will account for about one percent, one percent of the US inventory of mercury emissions stemming from the industry. EPA has acknowledged similar success in controlling dioxide emissions and had them reduced by at least 99 percent. Waste to energy will represent less than one percent of the known sources of dioxin. Waste to energy prevents the release of more than four million tons of methane onto our atmosphere assuming the same amount of trash now processed at waste to energy facilities is exposed to a landfill without recovery. Waste to energy prevents the release of more than 15 million tons of carbon dioxide into our atmosphere, assuming the same amount of trash. Waste to energy power as an alternative to coal prevents the release of nearly 25,000 tons of nitrogen oxides and 5,000 tons of organic compounds. Waste to energy also completes less the earth's natural resources than oil, coal or natural gas, power to electricity

generation. No doubt, waste to energy is a very valuable human resource. The fuel used in waste to energy plants produce cleaner electricity municipal solid waste. Two basic criteria for establishing one as a renewable energy source, the society will continue to generate waste, and no one can reasonably claim that waste will ever be one hundred percent eliminated. Tomorrow afternoon, in fact, the White House will unveil its proposal to reform the electricity utility industry. The State of New Jersey has at least two very important provisions in common with the federal proposal. One, both New Jersey's law and administration's proposal include waste to energy as a renewable source of power. Two, both New Jersey law and the administration portfolio standards that mandates that renewable power to keep a foothold on a portion of the electricity in the marketplace. We salute both efforts and offer our assistance in assuring that the provisions are implemented to the fullest extent. Thank you for this opportunity.

MR. BERKOWITZ: Questions from the council?

MR. MANGANELLI: How much CO2? You

mentioned something about 15 million tons of CO2 from our landfill. How much CO2 comes from burning of this material?

MS. BISHOP: I'm going to defer to one of my associates.

MS. SOOS: I can provide you emission data from the facilities. I don't have those numbers with me.

MS. BISHOP: We have some very valuable information about our industry, what we're doing, some of the things we put together and I would be more than happy to share that with anyone on the council.

MR. BERKOWITZ: In your industry you wanted to look at landfills as generators of gas rather than just landfills, do you see a way we can alter these environmentally and rethink what we did in the past?

MS. SOOS: If I can answer that, Mr. Chair? In fact, EPA has actually, as several states has, moved ahead as well to require that landfills do indeed get permits landfills emissions not only from the--if they have a met a gas recovery system and sometimes they just flair it sometimes they recover energy with some sort

of engine because the open stays of the will have itself, they are significant air emissions that come off of air, and EPA has issued to the largest landfills in the state and the country and then certain states have moved and implemented this for additional landfills. Their requirement that they from the landfill because it comes out of the open face for many years even after the landfill closes.

MR. MANGANELLI: On of the problems we've had in New Jersey has been with the resource recovery plant you're talking about for generations the perception that they're highly pollutional. What kind have a public education program, because this will tie in what we're looking for, do you carry on to overcome this perception?

MS. BISHOP: We've worked with community groups. We've also touched base and worked closely with our legislature. We also have talked to folks on Capital Hill. But, you know, often enough, we need to get out the message even more and share the information that we have. Because we have a lot of good information, and we had made tremendous strides in reducing the

amount of pollutants that comes out of our equipment. So I think we have engaged in a campaign to talk about who we are and what we can do. But I think we can probably do more of that.

MR. PALMER: For a variety of reasons, waste energy plants in New Jersey have been financial nightmares. How has this been avoided in other states, the fact that these things operating in a way that works financially?

MS. SOOS: If I can answer that. New Jersey's unique because New Jersey is the only state that's regulated solid waste as a utility. Communities around the country that have waste to energy waste management system with a recycling component are communities that are digging up old contaminated landfills. So they have a system feed for their solid waste so they charge one fee and they manage their whole system. Several years ago the court ruled that flow control, kind of the mechanism that would allow communities to build and finance these systems, they ruled that wasn't constitutional because it violated the laws. Most states have adjusted their systems. And in some cases, they say they've eliminated some of the other programs. New Jersey is a

unique, one, because of its size, two because of its population. And because it has been regulated as a public utility, it's almost the electricity industry was where you don't have the system you used to have, but you don't have an open market yet, so that's kind of where it's at.

MR. PALMER: Two or three states have done a really good job in making this whole system work so we get the waste energy a reasonable cost.

MS. SOOS: A lot of the states and the northeast, actually, Florida is a perfect example. I think they have 14 waste plants there. For environmental reasons they have very low groundwater, solid waste prices are very competitive with landfill prices. I think you can point to one of the numerous states. There are 28 facilities around the country and the only place where we see this type of situation that we do in New Jersey, frankly, is in New Jersey. But part of the it is also--

MR. PALMER: Who's at the other end of the spectrum, besides Florida?

MS. SOOS: Massachusetts, I think

Connecticut, they have a lot of waste in Connecticut.

MR. MANGANELLI: What kind of tipping fees do they have?

MS. SOOS: Well it depends on average, they are competitive with whatever the local landfill prices.

MR. MANGANELLI: Can you give me a number?

MS. SOOS: Landfill prices in Minneapolis is $50.00 per ton. Ours is $45.00 per ton.

MR. BERKOWITZ: Okay. Any other questions from the Council? Thank you very much.

(at which time a lunch break was taken)

MR. BERKOWITZ: Our next scheduled speaker, I don't see, Steve Gabel. So with that, I'll ask Jim Sinclair to lead off the afternoon session.

MR. SINCLAIR: I'm Jim Sinclair, first vice president of the New Jersey Business and Industry Association. I'm just looking for my cards. Bill O'Sullivan said he was here to hear me speak, and basically I'm here to say what I said last year and the year before that and the year before that. But about this electrical regulation, deregulation bill, what people said this morning that this is a comprise bill, and

from our perspective at the Business and Industry Association, it's a comprise. We certainly didn't get everything that we wanted for the general business community out of it. But it's a bill that really reflects a lot of effort. And I think that I have been impressed by Assemblyman Bagger and Assemblywoman Murphy's efforts and the grasp of the real issues behind that. And I think that's what you're here to talk and listen to today, is about those issues that really surround this thing. The bill itself has, I think, focused on economics, on cost, on the cost of energy in New Jersey. And back in the '80s, when we were publishing the Grant Thortan studies and then the Grant Alexander of the manufacturing claimant in the country and New Jersey participated, we always ranked down at the bottom in the study on the energy cost as a thing that impacts negatively on attracting and keeping manufacturing businesses, not just chemical companies, but other kinds of manufacturing concerns that we have in New Jersey. And my story, I guess, to tell you how this relates; last summer, I went to a manufacturing facility in Middlesex County, and they make beverage,

dehydrated beverages like teas and coffees, and I won't tell you who it is, but they're a world leader in this. And in their company, one of their real concerns were the cost of energy to produce their product. They took me to the table and showed me the spreadsheets that they had to compare their facility with other facilities, not just in the United States, but throughout the world. And it was shocking to look at the numbers in terms of the cost of energy. The only place in the world, and they had about 17 facilities throughout the world where they produced basically the same kind of ingredients, these were similar plants, but the only place the energy was higher was in Japan. And it was significantly higher in the United States than the other 15 countries that were below it. And the reason I bring this up is, in a global marketplace, the cost of manufacturing a product that can be controlled is extremely important to be able to compete. And energy is one area where we haven't been able to compete and hopefully this process, and that's really our position at the Business and Industry Association, hopefully this will allow us to compete better. And back

to Bill's hearing the thing, every year I come in here and say what we really need to help the quality of air in New Jersey is to have national standards, to be able to have the upwind states where the thing is blowing in from, have at least the same kinds of standards that we have in this state. And I guess I'm happy to come here today to say that I think that we've been making real progress. If you listen carefully to what the Commissioner said and Assemblyman Bagger, that the kinds of controls that we've been putting on electrical generating stations that are going to go into effect on the NOx should help us in the long run. And it depends on how you define long run, but this is going to help our air quality in the state. Now, I think we sort of had to make a pact with the devil here to get that, and that goes back to last year's thing whether we should be changing the standards to the eight hour and the PM ten, and I made my position clear on that and I still believe that. So now we can have sort of this schizophrenic announcement the Commissioner can make when they talked about how good the air is in the state, that we've only had four violations over the last summer compared to

the 20 or whatever it is in the previous year. Because, of course, now we have the new standard where we have 48 violations or whatever the number was. I think it was 48, was the number. But we knew that was going to happen. There are really three things in this process on electrical deregulation, it's the cost, the availability and the impact on the environment. And the cost, we need to drive the cost down. That's really important. But the availability of energy is also important to the business community. Both on the short term, and they use the thing about making sure that when you walk-in to the room you can turn the light switch on and that, to us, was important. But in the long term, to have an energy supply for a growing and expanding economy. And on one hand, and this is the schizophrenia again that you're facing and that we're facing in the business community. On one hand we're talking about strategies that's going to give us cleaner energy, give us less energy and by less energy, I mean, if you look at the Commissioner's charts, which I did, and his greenhouse gas strategy, which was really the first time that I saw that, we're talking about,

in the time frame here, a reduction in the amount of fossil fuel that is consumed. I mean, you count up the carbon atoms, and according to this, we're going to have three percent fewer of these carbon atoms bonding with oxygen and going into the air, three percent less than we had in 1990. And from our perspective, 1990, we were in a sagging economy in New Jersey. We've been booming since then. So that three percent reduction isn't really a three percent from now, that's a huge number. And I really don't know what that number is because I really haven't seen, and what I have seen, I don't believe on the base, because I think while it's a good effort, I think we're making up a lot of those numbers. But that also is another story. So the question of energy efficiency and reducing the amount that we use, really ties into this whole clean air concept and how we tie into other states. And I think that it's--as much as I have been bad-mouthing those coal fired plants out of state because they are making our air worse in New Jersey, the necessity in the long run of being able to utilize coal to provide energy, I don't think anybody can question that. So what

we need to do in the long run on the national level, is figure out how to use coal in an environmentally better way. And I think that's the real answer on that. And so, anything that we do in terms of supporting new technologies, not only the environmental technologies that we were talking about, the class one technologies, but the coal technology, if we can figure out how to use that better to have it less polluting here in the long run, we're going to need that energy that we get from coal. The Commissioner, and almost as a throw away, but everybody else in the same thing, talking about nuclear. In this equation, in terms of clean air, nuclear power is really a benefit. When we get rid of the 40 percent, we're going backwards. When we take the 40 percent that's being supplied by nuclear, the Commissioner said, almost as a throw away, we're going backwards in this equation. So I think that in terms of technology and where we're going, clearly somebody in the United States, it isn't going to be in New Jersey where we're doing this, but somewhere, someone's going to have to be thinking about and looking at the European Union and how they're using nuclear power and

also how we may be able to put nuclear power on line. Deal with the waste products and deal with the cost in this. Public service didn't say this, but I can say it as a consumer, going through the horrendous process of getting one of these plants on line and keeping them on line just from the bureaucratic standpoint has got to cost lots and lots of money in the process. We have to figure out how to better design, permit, and operate these facilities and deal with the waste products. And the last part of this equation is the whole question of, if we're really expanding, we have an expanding economy here, that means growth. That means we have an increased demand for energy. And we do have an increased demand. That is real. So we have to figure out, whereever it is, to move it around. And we need to be able to put in additions to the grid and interconnects and not only electric, and I know we're talking about electric today, but also gas, natural gas. If that is an alternative to a coal fired plant, perhaps in New Jersey, then we need to be able to get the gas supply in. If natural gas is going to be a fuel that's going to be used in this, then we need to get in

the supply in. And we can't have bills like pick one out here, Assemblyman D'Catano's bill and Assemblyman Kelly, who wants to stop an extension of the gas pipe line from the west because it goes through their district, even though it's an existing ride of way and paralleling and existing line, somehow we had we're going to have to address that.

MR. BERKOWITZ: Three minutes, Jim.

MR. SINCLAIR: Okay. I thought I was going to be a lot briefer than this. And then the last thing is that there are proposals on the table, and I know Assemblyman Wisnewski is not here, but Senator Venadent and Senator Allen, they're putting this thing back to the table to go back and look at the bill and add these sort of things that the environmental community, somebody said the fringe group, but I won't say fringe, I want to put these things back on the table. And we haven't really even given this process a chance to work. There are lots of safeguards in it, there's a lot of flexibility in it, and we ought to look at it before we change everything. Because clearly the message that we all got and everybody said it and I will resay it, that no

matter what we do here in New Jersey, those plants will still be operating. So if you put a tax on, it's a moral tax. If you decide to buy higher power, green power, you're doing that as a moral kind of thing because you're moving some agenda forward. But it's doing nothing to help our air because it's not shutting those plants down. What's going to help those plants are the controls that are being put on and that will come on in the future. So really, I guess I've said the same thing every year and I'm still saying it. Thank you.

MR. BERKOWITZ: Questions for Mr. Sinclair from the council?

MR. SINCLAIR: Dr. Manganelli, he always asks me a question, he's not here.

MR. BERKOWITZ: Mr. Gabel is here from Gabel Associates.

MR. GABEL: Thank you. Good afternoon. My name is Steve Gabel. I'm a consultant with Gabel Associates. We're an energy and environmental consulting firm up in Highland Park, New Jersey. I'm here today on behalf of the independent energy producers of New Jersey who are New Jersey's non-utility producers of power within

the State of New Jersey. And they now represent about 13 percent of New Jersey's electric generating capacity on a physical capacity basis on an energy production basis. Depending on the year, they're usually somewhere between 20 and 30 percent of the electricity that's produced to serve New Jerseyans. And I'm happy to be here today, I was here last year as well and I appreciate the invitation. What I want to talk about briefly this afternoon is what we think and what I think makes sense in terms of an environmental policy in New Jersey. I want to really build on two foundations. One is the strong efforts of DEP that have already taken place in respect to promoting clean technologies. And it's a very sound permitting process. The second foundation is the electric deregulation bill that Governor Whitman signed into law about a month and a half ago. I'm going to take those two things as given and then kind of work out from there, talk about a few things. The first is really, just to give you a picture, at least to me, this is one picture that tells the story of what's going on inside the power system within this region. New Jersey is part of

the Pennsylvania, Jersey, Maryland Interchange, that is, it's part of a transmission grid that runs from New Jersey out to western Pennsylvania. We are interconnected with points to the south, points to the midwest, points to the north. But the system that runs smoothly and is intergraded is the PJM system. This chart, I think, to me, tells a story on what's going on inside that power system, not with respect to the cost of power supply, but with respect to the emissions impact and where kind of the lay of the land is when you look at what the power supplies impact is on New Jersey's air quality. And as you work over from left to right, what I put up on the big bar, is American Electric Power, which is the largest coal producers, coal electricity producer from coal in this country. The next bar is the PJM power pool as an average NOx emission rate. The next one is the New York power pool just north of the us. The next smallest bar is the New Jersey utilities. And the tiny little bar right here is the independent power industry in New Jersey. People, I guess, have talked about coal versus nuclear versus oil versus gas. To me the real fair contrast to me isn't always

fuel versus fuel. What this chart really tells you is old versus new. The IPP's have all come on line in the last ten years, some in the last three or four years. What you see out with AEP and the power pools as a whole is a lot older stock of generator. In fact, some generators which have been grandfathered under provisions of the Clean Air Act and they have controls that are significantly less stringent than those that a new power plant would have to put in place if they wanted to go on line. So that's really the story that's out there. And as the industry moves into a time of competition, retail competition begins in New Jersey later this year, probably enrollment will start in August, sign up of retail customers will probably start sometime in October. But the fact of the matter is that wholesale competition, exchanges of power for money among wholesale buyers of power has been going on very strongly in the region for at least the last five years, if you ask some people a lot longer than that. And the wholesale competition is exactly not about this, it's about the cost of that power supply, and it shouldn't come to too much of a surprise that the cost of power from an

older plant with lesser controls, with lesser operation and maintenance expenses from coal is going to be a very tough competitor in the marketplace against facilities that have to meet much stricter air pollution standards. Don't take that comment for a second to believe, to conclude, that New Jersey should back away from its stringent standards. I think New Jersey, absolutely, should stick with it. What it does mean, I think, and this to me is the biggest recommendation that I would offer out of my comments, is that New Jersey should stick to its guns at the federal level. I'm sure you're all aware of the things happening with the NOx call, with the OTAG group and a few other initiatives by EPA that are trying to levelize that permit playing field across the different states, it's imperative that New Jersey stick to its guns, keep the strong policy approach to try to have an equalized permitting process and equal, fair permits requirements across power generators across the country. Without that, the notion of real, fair, sustained competition among power suppliers is not going to be real. So that would be the first lesson that I take away from this

type of thing when you later on the cost issues. The second issue, and it relates to, again, this little bar right here, and that's that the IPP NOx emission rate is much lower, both because these plants are new, but also because they engaged, most of them, in cogeneration. At the site in which they're located, they not only pump electricity into the grid, they're also providing thermal energy to a large industrial host. The two biggest examples in the New Jersey are the Tasco Refinery, when was able to put aside some old industrial boilers in order to take its steam from the plant, cogeneration plant that's now run up there by East Coast Power. And down at the Dupont Plant down in Deep Water where US generating provides thermal energy to the large Dupont chemical facility down there. Cogeneration, obviously, not only gives you these benefits, but it also takes out an industrial boiler and to an extent, you recognize that benefit of cogeneration in allowance trading programs in emission trading programs as the thermal benefit of that technology. You'll begin to push that technology even further within the State of New Jersey. The fourth issue that I

wanted to touch on is to ask DEP, and ask you to keep DEP managing the permit process in an efficient manner. The real competition in the industry, as I mentioned, is going to be probably between the old coal plants, which begin to either increase their output and their capacity factors or take actions to increase their capacity overall, versus the new plants that will probably spring up on the east coast of the country if the process is set the right way because of a locational difference. There are locational benefits to having power plants closer to load the way the system is managed, price signal is send called locational marginal pricing, which tells generators they get an economical benefit if they are closer to the electrical load and away from the transmission constraints that exist in this country. As a result of that competition, old coal, new technologies, it's important that as these new technologies are developed that can displace the old coal, that the DEP continue its very impressive efforts to make the permitting process more efficient, more timely, move the process along while also protecting the public health as

they do that. The fourth issue I wanted to touch on briefly was the issue of environmental disclosure. You possibly heard about this earlier today. The BPU working with the DEP over the last two years has been trying to put in place a system that will tell retail customers not only how much their electricity costs, what the environmental impact of the energy that they buy. The notion of green power is real, if it's done the right way. If it's done the wrong way it could basically be a shell game of companies putting a green label on something but really accessing supplies from the same power grid that they would have accessed the supplies from anyway. So we need a meaningful system of disclosure that really enables the BPU and the DEP to have some reasonable mechanism to track the supplies without imposing too much cost on the suppliers who are going to have, ultimately, the obligation to track the supply. You don't want to make the cost of tracking too excessive. But disclosure of emissions and fuel mix is a real way to give consumers the ability to move New Jersey's power supply from a dirtier to a cleaner source of energy. To summarize, then, I

would ask that this group keep and help DEP to keep the pressure on at the federal level to equalize the playing field on permits, to keep the process of granting permits and giving permits an efficient one. To find ways to do cogeneration within the trading programs the DEP operates and is involved with, and to keep its work going with respect to disclosure for retail customers. Thank you.

MR. BERKOWITZ: Thank you Mr. Gabel. Questions from the council?

MR. SPATOLA: Steve, among the independent power producers of New Jersey, is that all produced and used locally or is the IPP also utilizing the PJM grid they place the board powered supply?

MR. GABEL: Most of the independent power plants in New Jersey at this moment in time have their power supplies locked into long-term agreements with the local, the four electric utilities in New Jersey. They sell it wholesale to those utilities that resell it to their customers. The market is opening up, however, and as new plants come on line, in all likelihood, they would not be able to get

long-term, they're going to have to go through to what's called a merchant mode and try to sell their power either to the PJM grid or find retail sellers of power where they can move that power to.

MR. BERKOWITZ: Steve, we haven't had the benefit of having testimony from BPU for whatever reason today, and I don't believe there is anybody from BPU who is going to testify. Apparently, there is a hearing tomorrow at 1:30 to 4:30 at Two Gateway Center. Have you reviewed the disclosure labels? And what are your thoughts about the disclosure process and the labels?

MR. GABEL: I think there's a lot of intricacies that need to be worked out with respect to what people in the industry call the tracking mechanism. If you buy from a green supplier, it goes kind of almost without saying that the power that the green supplier, when they have hydro power or wind power or solar power entering the system here, those aren't the same electrons that go through your meter. As a result of that, the tracking mechanism of verifying that the power supplier that you bought

that power from, actually injected more green power into the system because of you, becomes a very difficult, complicated process. And that's where the rule doesn't go directly into that issue, it talks about a process to address that issue. And that's the real tough issue in there. With respect to what the rule does on what ought to be disclosed, I think it's a very positive role, and that is that it has all power suppliers will have to disclose their fuel mix. So if you can kind of picture a pie with different pieces of the pie telling what the fuel type is, and they'll have to tell, I think, their NOx, their SOx, their CO2 emissions from each plant. So if you can kind of imagine a bar chart showing what the emissions are from the supplier you bought from and a line on there showing maybe what the regional or state average is. You'll get a sense, you'll be able, as a customer, to get a sense of what you're buying.

MR. BERKOWITZ: And it's your belief that somebody who is interested in trying to educate themselves in making an informed decision as compared to the labels comparison that need to be made?

MR. GABEL: Yes.

MR. BERKOWITZ: Thank you. Any other questions from Council?

MR. SPATOLA: One last question for you, Steve. I know that you presented a chart on the efficiency from independent power producers versus other sources of electricity in the state, but how does that also compare in for one hour versus a more bulk of the producers?

MR. GABEL: The older plants from the midwest, the coal, the older coal fired plants, are significantly less expensive on a running cost basis, putting capital cost aside, to produce a kilowatt of electricity would probably be between one and two cents per kilowatt hour. And for a newer advanced technology, depending on the cost of the fuel, would probably be between two or three cents. Anywhere from ten to thirty percent price differential between the two sources, which in a competitive market is a very wide defence.

MR. BERKOWITZ: Any further questions? If not, I'd like to thank you, Steve. Good seeing you. Thank you very much. Our next person will be Mr., and please forgive me if I'm

mispronouncing this, Bi bbo from the Sciences Services Inc.. Not present. I think our next, perhaps, final speaker is Michelle McMorrow, regional director of Burning Issues.

MS. MC MORROW: I want to thank you very much for giving me an opportunity to speak today. I came to Burning Issues by way of calling the USEPA when I was trying to learn more about wood smoke pollution. I would like to give my support to the last speaker's point of view about pursuing.

MR. BERKOWITZ: Can you redirect the microphone so everybody hear.

MS. MC MORROW: Thank you very much and thank you for giving me the opportunity to speak. I'm going to read my notes to you. What I was also trying to do was give my support to the previous just speaker's point of view. I came to Burning Issues by way of USEPA. I called them in desperation to find out more about wood smoke and the impact on the human condition. My concerns go, perhaps, a little afield of what your main focus is today, but they certainly tie in with the deregulation of the industry. We've all gone through the pros and cons of the

communication industry's deregulation and we've observed all the professional as well as amateur participants that entered that industry immediately afterward. With the deregulation of electric utility, a number of us are concerned that we'll see the same kind of participation in the amateur participants in this industry. And before you make any decisions, hear me out a little further. Asthma, back in 1997, Newsweek May 26, reported that asthma in America was afflicting some 14.6 million of us, including five million children. The number represents a jump of some 61 percent since the early 1980s. According to the National Center for Health Statistics, the asthma has increased in every age group with the hardest hit being the children under 18 years. For them it was a 73 percent increase from 1982 to 1994. And the death toll was doubled, 5,000 each year. Right now we're probably looking more towards the effects of ground level ozone as we're going in to the warm summer months, a combination of pollutants from smoke stacks, paint, solvents and a variety of other things are contributing there. We know that two cycle engines are still far more

polluting than they need to be. Probably need to go to the next phase of auto emissions by demanding more efficiency, especially from the SUV and diesel engine manufacturers. Commercial vehicles are, I believe, long overdue for the same kind of emission study and scrutiny than we've done for the private vehicles. The oil industry must produce low sulfur gasoline and eliminate the MTBE which is sensitizing to a great number of people and has been found to poison our water supply. Methyl bromide, which you don't hear too much about in the news, which apparently is a significant participant in the production of ozone, and that production in the country has been halted, but apparently the use of methyl bromide goes on still to this day. USEAP Office of Air Quality Planning and Standards identified other air pollutants that are grave concern, carbon monoxide and particulate matter. I think we all pretty well know about carbon monoxide, but I think a little more attention needs to be paid to particulate matter. The tiny particles and unburned materials suspended in the air, they're so small that they pass by the lining in the nose and the

throat, and they become embedded in the lining of the lungs. Most wood smoke particles actually average less than one micron which allows them to remain airborne for as long as three weeks. Wood smoke in particular from a fireplace or wood burning stove or even camp fire, contains creosote, soot and ash. And these particles are so small they filter into your home even when you have your window closed and your doors closed tight. Inhalation of this particulate matter 2.5 causes coughing, irritation, scarring and damage to the lungs. It contributes to cancers and to heart decease and to changes in DNA which can lead to autoimmune disease. Particulate pollution is also thought to be a contributing factor these days to sudden infant death syndrome. The highest PM levels measured consistently result from the burning of solid materials. Smoke from wood combustion is entirely in this range. In the packet that I will supply you with, there's a chart of average emission of fine particles. The sources in that chart are broken down in an hourly fashion. But if you take a look, you'll see that gas furnace creates particulate matter, 0.001 grams per hour

and in 24 hours that's a .024 grams total. An oil furniture in one hour creates .02 grams for a total of a daily production of .48 grams. A certified wood stove, which the EPA currently is supporting, creates 8.2 grams per hour or a total of 196.8 grams in a given day. And a non-certified wood stove of which we have the most in this state, I'm sure, is 15.6 grams per hour or 374.4 grams in a day. Summary of emission characterization and a noncancer respiratory effects of wood smoke and EPA document that is listed EPA 435-4, indicated that for children in homes where wood is burned and living in communities where wood smoke is prevalent, the smoke causes a decrease in lung capacity and increases in asthma attack. The frequency and severity of general respiratory illness is increased, emergency room visits are increased, and the higher rate of school absences. About 50 percent of airborne polynuclear organic material comes from residential wood burning overall. POMs include another group of compounds, polycyclic aromatic hydrocarbons, which contain many carcinogens and USEPA estimates that the cancer risk from wood

smoke, which I find this interesting, is 12 times greater than that from the equal amounts of tobacco smoke. It also remains viable longer. A study in Louisiana State University discovered that free radicals produced from wood smoke are chemically active for 20 minutes, while tobacco smoke radicals are chemically active for 30 seconds. I'll take my chances with that one. Thank you. There are over a hundred different chemicals and compound groups in the emissions of wood burning. In addition to the previously mentioned, there's formaldehyde, methane, VOCs benzene, phenol and nitrogen oxides, and that combines, as you know with the ozone. Unless the house is pressurized with extensive external air intakes and coupled with a highly sophisticated filtration units, the pollutants of the person who is doing the wood burning will also integrate their home because the smoke goes up the chimney, it's generally heavier than the air inside, and as it exists the stack and is drawn back in hence the fire goes from raw oxygen to continue burning. The low stacks, I mean that generally speaking, the smoke stays down at ground level, and it also ensures the contamination of the

surrounding neighborhood. On a daily basis and just about year round I check into New Jersey's DEP air monitoring web page, and invariably I see, even in the winter, the moderate air quality due to particulate matter and smoke pollution often as early as seven a.m. in the morning. On days when the wind drops or comes in from the ocean, that moderate rate very quickly deteriorates. Ground level ozone, as I'm sure you folks know, is already an issue and it's only April. I think that's probably, it looks like we're in a brace right now as to whether or not ozone or particulate matter will win the day on any day. Since 1973 with the oil embargo, the sale of wood burning stoves has skyrocketed. The shiny knew smoke stacks in every residential neighborhood can attest to that. And most of the condominiums and town homes that I have looked at, they offer electric heat, clean electric heat and conversely they offer supplementary wood stove. And the indication is that wood smoke is not that bad a thing. And when you look again at that emissions chart, it seems is this we're laboring under that misconception that wood smoke is green. It's natural, therefore it's healthy.

And wood smoke is, in two words, air pollution, plain and simple. The more efficient fuels, the natural gas and oil burned clean because our government has regulated and imposed standards, so that they wind up burning clean and ensuring a healthier life-style for everyone. As you can see, the wood stoves are at least a hundred times more polluting than the gas furnaces and the old wood stoves are probably about a thousand times worse. There's just no way to burn wood, not safely. According to the natural resources defence council, 64 thousand people probably die prematurely each year from cardiopulmonary cause linked to particulate pollution. England began to mandate a clean fuel use following their air inversion in 1952 that killed 4,000 people. It's called, what did they call it there, the UK Clean Air Act of 1956 came about because solid fuel combustion was a significant contributing factor in the deaths of those 4,000 people. Star Ledger in December of '98 listed to our population density at approximately 1034 per square mile. If we're going to legislature for clean air as it applies to a tobacco smoker, how can we ignore an issue that is 12 times more deadly and far more

evasive than tobacco smoke? My goal is not to minimize the concerns of the industrial pollution incineration. And I'm not here to excuse, if you will, the emission from our western neighbors. I'm here to target the enormous ignorance that's contributing as much as 50 percent or our pollution here in the State of New Jersey. We, the public, have got to take responsibilities for our actions. Not every problem can be pinned on the pocketbook of an industry. Individuals who make poor decisions will impact themselves and their neighbors, and what we need to bring industry and compliance, we also have to begin at the bottom of the pile and work, starting with the amateur incinerator operator who is the residential worker. The information and science is available to us. Burning Issues has a website that has complied some 300 scientific papers, most of them have been accomplished by the USEPA and some other original studies. The New Jersey DEP needs to bring this to light, they need to enforce good public health for all of us. I've been assured that we don't have an open burning policy in this state, but I have been told that farmers can obtain annual burning permits. Burn

days are dependant here only on fire conditions. No consideration is given to the air quality status or the daily forecasted conditions for human health. One call to the Forestry Service and you can light the match. In Washington State, this year, they've notified the grass seed industry that they're no longer able to conduct open field burning. The health of the residents takes precedence over the profits of their industry. I'm sure their density can't hold a candle to ours. In Iowa, Nevada and Pennsylvania, last year, law students were successfully filed against residential wood burners by their neighbors. The details can be seen on the Burning Issues' web page. The upshot here is that the clean non-polluting fuels are available. The court found for the plaintiff's right to clean air in the home, clean air on the property. This past weekend I noticed that my garden centers are being flooded with a clay version of a wood stove, a chiminea from Mexico. Customers are now being encouraged to go and burn wood or coal on their patio and have a lovely outdoor wood fire for the summer. That's open burning. This should not be even for sale in

this state. We need to get the State of New Jersey to take a second look at this. It occurs to me that as long as they ever there's enough particulate matter being generated by our population, there's no way for scientists to prove the negligence of corporate entity. Right now most residential wood burning is coming to a halt. With these chimineas, I'm sure we're going to see a lot more wood burning, and at same time the power plants to the west that we've been hearing about are going to be cranking up in earnest burning wood, coal, whatever is cheap. So the question is, how many wood burners does it take to nullify any attempts by scientists to read particulate matter data and to identify the power companies or any other industry or anyone else as a polluter? And I would say that we've met the enemy and he is us. I would hope that you folks will be able to mount some kind of an informational and educational campaign, public and influence, some kind of controls for the wood burning. Both the public and private. Thank you.

MR. BERKOWITZ: Thank you. Any questions from the council? At this point, this concludes

the list of speakers that I have before me. Is there anybody else in the audience that wishes to be heard on the issue of energy deregulation? If not, I've been advised that the Commissioner would like to say something.

MR. SHINN: Sorry to get on your agenda twice in one day, but it was a little premature this morning to talk about this, but New Jersey is filing a 126 Action against a group of states south, as far as North Carolina and west to include Illinois and North Michigan and New York. So it's the transport line west and certainly south to include North Carolina. So it's not something that we've done lightly. Quite frankly, we became concerned when a lot of us, a lot of the states that voted for the OTAG solution and recommendation of the EPA through, probably several reasons, changed their position. And states like Ohio and Indiana and North Carolina, to name a few. And we're sort of in a unique position to take advantage of the subregional modeling that EPA did. EPA took the OTAG model and did it from a state perspective, and we took the opportunity of bringing that modeling into our program and identify that in

the state implementation plan call. So we think we have a technically sound basis for making the 126 Application. And so, essentially, I'm signing that and processing it as of today. Those of you who are interested in that aspect of our air program, it's done. Thanks a lot.

MR. SPATOLA: The Clean Air Council, today, aware of this action, has passed a resolution in this regard. And I would just like to readjust the last portion of our resolution as it applies to Section 126. If you want I could read the whole thing to you. This is done by the Clean Air Council today, the 14th of April. It says, WHEREAS: New Jersey has taken strong efforts to control ozone precursors within its boundaries. WHEREAS: Emission reductions from sources located in New Jersey alone cannot bring the State into attainment, because ozone and ozone precursors transported from outside the State continue to impair the State's air quality;
WHEREAS: New Jersey has therefore played a strong leadership role in the National Governors Association, the Environmental Council of the States, the Ozone Transport Assessment Group and the Ozone Transport Commission in promoting

cooperative and innovative solutions to regional environmental challenges;

WHEREAS: New Jersey has also played a leadership role in fostering coordinated regional ozone reduction actions among the twelve Ozone Transport Commission states and the District of Columbia such as the NOx Budget Program for large stationary sources which calls for a seasonal 75% NOx reduction from electric generators by May 2003, along with an interim 65% NOx reduction beginning in May 1999;

WHEREAS: Based on the OTAG Assessment, the US Environmental Protection Agency has determined that ozone precursor emissions originating from sources located in midwest and southeast states significantly contribute to ozone standard exceedances in New Jersey, which is consistent with e North American Strategy for Tropospheric Ozone's finding that 40% or more of the ambient ozone affecting New Jersey is typically the result of interstate transport;

WHEREAS: The US Environmental Protection Agency has taken final action under Section 110 of the Clean Air Act to address regional ozone transport in the eastern United States by requiring that

twenty-two eastern states reduce seasonal NOx emissions by one third, so that power plants located in those twenty-two states reach a NOx emission level of 0.15 pounds per million BTU;

WHEREAS: The US Environmental Protection Agency's Section 110 rule has been legally challenged by midwest and southeast electric generating companies in an attempt to stay the rule and thereby delay or avoid NOx emission reduction actions;

WHEREAS: Section 126 of the Clean Air Act provides a means for states to petition the US Environmental Protection Agency to take direct action to mitigate interstate transport, under which eight northeast states have acted;

WHEREAS: New Jersey has now joined the aforementioned eight states to petition the US Environmental Protection Agency under Section 126 of the Clean Air Act.

THEREFORE: The New Jersey Clean Air Council strongly supports and commends the decision by the State of New Jersey to file a Section 126 petition expeditiously with the US environmental Protection Agency as means to ensure that the impact of regional ozone transport is effectively

mitigated, should the US Environmental Protection Agency be unable to proceed with Section 110 implementation as set forth in the Section 110 final rule. That's it.

MR. SHINN: Good.

MR. SPATOLA: Congratulations on behalf of the entire Clean Air Council.

MR. BERKOWITZ: Okay.

MR. EGENTON: Wearing my other hat, I wanted to thank you both professionally and personally, as you know, the State Chamber joined in the litigation with the New England States, and we appreciate your efforts here today. Thank you.

MR. BERKOWITZ: Commissioner, on behalf of a lot of people who spectated your involvement, and somebody that's personally involved in the program years before, I'm proud of your efforts in putting New Jersey on the forefront and I want to personally congratulate you. We have written comments which will be entered into the record from Marie Curtis from the New Jersey Environmental Lobby, from William Dressel from the New Jersey League of Municipalities. And Janelle Gurarro from Enron. Is there any other

business pending before the Clean Air Council relative to the hearing?

MS. INDELICATO: Just to let you know there was a little confusion with the BPU's scheduling today. But we as the Council might want to consider and we're certainly open to it if there were any other questions that they were not able to come to and answer or something like that, we could submit them and also receive their comments, so we'd like to reserve place for the BPU statement also of some type. And I also just want to say I have a message that was sent by Chris Siebens that there were certain questions he could not respond to and he'll provide an e-mail address. That will come back in that will make part of the record also.

MR. EGENTON: Erin, do we have a guest speaker scheduled for the next meeting for May.

MS. INDELICATO: We do.

MR. EGENTON: I was going to suggest if not that would be but the following would be we can have a BPU representative come talk to us.

MS. INDELICATO: They filled right up.

MR. BERKOWITZ: I think it would be very important to get the BPU's comments.

MS. INDELICATO: A representative in the audience, who could really speak on the issues, suggested that there were things they could have answered if we would like to put certain questions to them.

MR. EGENTON: I think in putting together our reports of the comments we received, we can sit down with a BPU representative and hopefully in the month of June and they can clarify some things on the Board of the Public Utilities end of it.

(testimony of William Dressel, not present)

MR. DRESSEL: The New Jersey League of Municipalities is pleased to offer its position regarding the environmental impact of electric energy deregulation in the State of New Jersey. The League recognizes that the instability of market pricing and energy supply could, over time, create a stronger bias toward the introduction of less environmentally friendly fossil fuel derived energy which is generated in areas west of New Jersey. Environmental standards are less in that region of the country than those which have been promulgated and

successfully administered in New Jersey. Therefore, the League supports any initiative that will work toward the reduction of imported energy to the State which has been produced through unacceptable environmental standards. This includes support for the environmental disclosure standards promulgated under the Act. However, we strongly urge the New Jersey State Legislature to adopt even stronger standards over the course of the next four years. We believe that New Jersey should take a national leadership position linking energy deregulation with environmental impact concerns. Of primary importance to the League is that all energy consumers, particularly those in the residential sector, must have the ability to benefit from lower prices resulting from deregulation on a consistent and ongoing basis. This will assure that New Jersey will continue to maintain a healthy and growing economy while its residents enjoy improvement in the overall quality of life. Two key issues form the League's position in this critical area- municipal aggregation and the adoption and administration of effective Demand Side Management efficiency programs and measures.

Municipal aggregation will allow sufficient numbers of low use energy consumers to take advantage of volume purchasing to maximize cost reductions and achieve meaningful reductions in their energy bills. The league has consistently and visibly maintained its support for the municipal aggregation concept, and it has now committed its resources to all members in their efforts to develop the framework. New Jersey has long been a national leader in the creation and administration of highly effective DSM programs. Many of these have become models for similar initiatives in other states. We now find ourselves at a crossroads regarding the true of DSM in this state. Given the positive environmental implications of DSM, it is essential that a renewed effort be put forth with both the energy supply sector and the private energy service industry combining in a broad-based effort to increase the level of funding and market penetration of DSM programs. DSM, by definition, will reduce the amount of energy required for individuals and businesses alike. This, in turn will decrease the dependence on less expensive and higher polluting

electric generation. In addition, an ongoing program of effective DSM efforts will ultimately mitigate the need to construct additional generation facilities in New Jersey or within the Pennsylvania, New Jersey, Maryland Interconnection. All of this will lead to a substantial reduction in emissions, thereby improving New Jersey's air quality. The League also endorses the State's initiatives in the areas of alternative and renewable energy sources that are becoming increasingly critical to the energy stability of both the state and nation. The League expects that the increased funding which was included in the legislation will be utilized to develop innovative and cost effective solutions to alternative energy applications that will be beneficial to its membership over a longer period of time. In summary, the League of Municipalities has dedicated its staff and resources to assure that its membership receives the maximum benefit possible resulting from the deregulation of the electric industry while striving to support initiatives that, at the same time, will lead to the amelioration of New Jersey's environment. We support municipal

aggregation, the expansion of the environmental portfolio standards and the development and funding of effective and meaningful DSM programs. Finally, we commit to provide a strong and understandable education program to our membership regarding the implications of energy deregulation and its relationship to the environment of New Jersey.

(testimony of Marie Curtis, not present)

MS. CURTIS: The New Jersey Environmental Lobby represents some 100 local and statewide environmental groups in the state with a thirty-year history of activity to protect and preserve New Jersey's natural resources and the public health. In recent years we have focused primarily on air quality because of the severity of the air pollution problem in this state. We fear that the deregulation of the electric power industry will only worsen an already bad situation. Because New Jersey is in severe non-attainment of the National Ambient Air Quality Standards, we have required more stringent controls on pollution generators, including power plants. The facilities providing

electricity in this state are far cleaner than those in other areas. They also provide electricity at a higher cost, paying for those protections. In the midwest, the tall smoke stacks carry the emissions up to the prevailing winds where they are transported to the northeast. Most midwestern states are in compliance with NAAQS because their emissions are deposited elsewhere. These states also have a strong economic interest in coal as fuel since they are home to much of the coal mining industry. So a ready supply of rule, coupled with supposed Clean Air compliance, has led to dirty power production at a considerably lower cost than here in New Jersey. The public has been told repeatedly that deregulation means competition and competition means cheaper rates. Our fear is that our citizens will act on that premise and decide on a power provider based solely on the bottom line. This could impact most adversely on our air quality, public health and even on the State's economy should the clean utilities be forced to curtail or close operations. This is not a happy scenario for anyone. We are not alone in this vision. In the

past several months, anticipating deregulation and a demand for cheap power, power companies in Michigan, Louisiana and Illinois have been attempting to bring old, dirty coal fired plants on line again. These are some of the most polluting generators since they were grandfathered under the original Clean Air Act and exempted from new source facility standards. In Michigan, the plans to reactivate such a plant were called routine maintenance to justify the reactivation. Some local citizens were horrified and groups eventually went to court. The judge declared that reactivation of a plant mothballed for 12 years was more than routine maintenance an ordered the generator to switch to natural gas as a fuel. In other areas, the issue of those dirtiest facilities being reactivated is still very real and progressing. Here in New Jersey our citizens will have information to assist them in making a choice of power provider. The law in this state requires that potential customers be told of the fuel sources of the power that they will be buying. Residents will be able to see the percentage that comes from dirty coal, the percentage that comes from cleaner natural gas or

hydroelectric, and the percentage that comes from green sources like solar and wind. The choice will be important to us all. If we opt for monetary savings alone, our air quality will continue to worsen. We are already facing possible sanctions for failure to improve air quality. Further stringency in our state requirements will be an economic disincentive to business and will end up costing us more in other ways. Most important though, is the public health. It is our children and senior citizens who will pay the price here. Studies have shown us repeatedly that air pollution equates to increased heart and respiratory disease. A study done here in New Jersey showed that, on ozone alert days, hospital admissions for respiratory disease rose roughly 30 percent. The primary source of NOx, an essential element in the foundation of ground level ozone, comes primarily from power plants- coal burning power plants. In the presence of ozone, asthma attacks and allergy reactions escalate as well. A British study confirmed that in the presence of ozone, only one-half the normal dosage of an allergen will trigger a severe attack. In some

parts of Elizabeth, NJ, roughly 40 percent of the elementary school children suffer from severe asthma. It is not a cost saving if we have to increase medical care costs and medical insurance costs to compensate for declining health. The real cost of our power provider selection may never be seen on an electric bill. Therefore, we believe that a massive public education campaign to place facts before the citizens of this state prior to deregulation is necessary. New Jersey citizens are sophisticated when it comes to environmental concerns. We believe they will do the right thing if they have all the facts. We thank you for the opportunity to appear here and make our concerns known to you.

MR. BERKOWITZ: I believe that that concludes the hearing. And as such, I'll turn the microphone back to the Chair.

MR. SPATOLA: This officially closes the Clean Air Council's 1999 public hearing. And we want to thank everybody for the participation and the involvement and the comments and the suggestions that have been made. That will help us to arrive at some position on what recommendations we should be making to the

Commissioners regarding this very timely issue that was today's topic. And thank you.

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(The public hearing was concluded at 3:30 p.m.)

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C E R T I F I C A T E

I, MATTHEW SEDACCA, being a Certified Shorthand Reporter of the State of New Jersey, do hereby certify that the foregoing is a true and correct transcript of the proceedings.

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MATTHEW SEDACCA
CERTIFIED SHORTHAND REPORTER

DATED: May 2, 1999

This transcript is not to be copied unless under the direct control and supervision of the reporter.

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N O T A R Y P U B L I C

I, MATTHEW SEDACCA, a Notary Public of the State of New Jersey, my commission expiring on May 22, 2002, do hereby certify that the witness was sworn by me on the aforementioned date and place mentioned.

_____
Matthew Sedacca
Notary Public of the State of New Jersey
2201771
My Commission Expires 5/22/02

Date: May 2, 1999