

**STATE OF NEW JERSEY
Board of Public Utilities**

IN THE MATTER OF THE BOARD'S)
INVESTIGATION OF CAPACITY)
PROCUREMENT AND)
TRANSMISSION PLANNING)
)

DOCKET NO. EO11050309

Testimony of

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On behalf of

The COMPETE Coalition

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President Solomon, and Commissioners Asselta, Fiordaliso and Fox.

My name is Susan Tierney. I am a Managing Principal at Analysis Group, an economics consulting firm headquartered in Boston. I specialize on electricity and gas industry issues, and tend to focus on issues at the intersection of economics, regulation and markets.¹

I am testifying on behalf of the COMPETE Coalition (“COMPETE”). COMPETE is an organization of almost 600 electricity stakeholders, including customers, suppliers, generators, transmission owners, trade associations, environmental organizations and economic development corporations, all of whom support well-structured competitive electricity markets for the benefit of consumers. COMPETE favors market solutions and choice as the best way to sustain competitive energy prices for consumers.

In this docket, the Board has been examining a number of issues surrounding sources of supply that serve electricity consumers in New Jersey. President Solomon’s notice of hearing has asked a number of questions aimed at examining the performance of the wholesale markets that serve New Jersey. As the Board assesses these issues, I encourage you to be mindful of the positive elements of today’s competitive market structure so that actions you might seek to take do not undermine some attributes of the market that benefit New Jersey consumers.

One of the most important of these elements is New Jersey’s positive track record in pursuing efficient energy solutions. This outcome stems from several factors.

First, New Jersey has been one of the leaders in supporting energy efficiency, and consumers will benefit from steps you take to strengthen it and by avoiding actions that would inadvertently undermine energy efficiency outcomes. The State’s efforts include utility-sponsored energy efficiency programs and state policies regarding appliance efficiency codes and building standards. (Figure 1 shows the ratings of states in terms

¹ My background includes 15 years in Massachusetts state government, where I served as a public utility commissioner and Secretary of Environmental Affairs, and in the federal government as Assistant Secretary for Policy at the U.S. Department of Energy. My consulting practice has included a wide variety of clients, including state government agencies, the National Association of Regulatory Utility Commissioners, attorney generals, large electricity and gas customers, regional transmission organizations, electric generators, transmission companies, distribution utilities, foundations, Indian tribes, environmental organizations, and many others.

of their 2010 performance on energy efficiency policies and programs, as characterized by the American Council for an Energy Efficient Economy.)

For policy makers in states, like New Jersey, with a restructured electric industry, energy efficiency is an area of energy policy where the state can have a powerful and direct effect. State policies have helped overcome significant and persistent market barriers to energy consumers' adoption of energy efficiency. This in turn helps them lower their energy use, manage their electricity bills, and help keep their states' economies more resilient if energy prices rise.

Second, **these energy efficiency policies and programs are working.** When one focuses on how much customers are paying for electricity in New Jersey, rather than what the price of electricity is in the state, New Jersey is doing a better job than the conventional wisdom would suggest. Importantly, the price of electricity is only part of the story, and tends to mischaracterize the cost of power for real consumers. What really matters is the total energy bill paid by the customer.

The relatively high electricity prices in states like New Jersey mask the fact that those states' economies are using electricity relatively efficiently. This can be seen in Figure 2, which compares the states in terms of their relative reliance on electricity to produce economic activity. New Jersey's economy uses low amounts of power to produce economic output, just behind a number of states that, like New Jersey, have relatively high electricity rates. This means that New Jersey gets more economic bang for its electricity buck.

Figure 3 shows this point from a different angle. When you take into account the fact that the average residential customer in New Jersey uses much less electricity than his or her counterparts in other states, the New Jersey customer actually has a lower annual electricity bill than an average residential customers in some states with much lower electricity rates. Take, for example, the residential customer in Tennessee or North Carolina or Alabama, with much lower electricity rates: they pay higher electricity bills on average than does the average household in New Jersey.

I mention this point to the Board as a reminder of the importance of the powerful tool of energy efficiency, which is one of those policies where states can make a difference. As shown in Figure 1, New Jersey has already done a lot in this policy area. And it would be a shame to miss the opportunities to do even more.

Third, the wholesale competitive markets that serve New Jersey are doing a good job in fostering an environment that values efficient use – and supply – of electricity

resources. PJM's markets are providing sufficient, diverse and efficient energy resources, including demand-side resources. Many others in this proceeding have already highlighted the fact that reserve margins remain strong, with energy and capacity markets having brought forward new resources in recent years at an average cost lower than the cost to build new generating capacity.

I highlight here, in particular, the information provided to the Board by PJM in June, 2011, which indicates, among other things, that 708 MW of new generating capacity has been installed in New Jersey since 2007, with more coming forward for delivery in upcoming years:

Since the implementation of RPM for the 2007/2008 Delivery Year, a minimum of 42,173 MW of incremental capacity was made available or offered into the 2014/2015 Base Residual Auction across the PJM region ...Of that, 9,189.5 MW was made available in the Eastern MAAC region of PJM, which includes 5,564.9 MW of additional capacity made available in New Jersey as shown in Table 2. This incremental, new capacity made available to PJM through RPM includes new generation capacity resources, capacity upgrades to existing capacity resources, new Demand Resources, upgrades to existing Demand Response resources, and new Energy Efficiency resources.²

In Figure 4, I have reproduced Table 2 from the PJM quote above, along with another table (Table 5) from the same document, which shows the amount of installed capacity already added in the different PJM states from 2007-2011. According to PJM, on average, this capacity has been obtained at an average price below the cost to build new generation in New Jersey.³

Since 2007, the PJM-administered markets have excelled in bringing forth cost-effective energy-efficiency and demand-response resources. These resources have helped to keep capacity costs lower than they would otherwise be in the absence of these resources. Figure 5 shows the increasing amounts of PJM load-management in New Jersey from 1999 through 2010, and shows with the clear uptick that occurred after 2007. Figure 6 shows the track record of PJM load-management resources in various regions (including a total of 1,652 MW clearing the market in New Jersey, in the constrained areas of several zones (Atlantic Electric ("AECO"), Jersey Central Power & Light

² Comments of PJM Interconnections, L.L.C. in Docket No. EO-11050309 (the New Jersey Board of Public Utility's Investigation of Capacity Procurement Transmission Planning), dated June 17, 2011, page 14.

³ Comments of PJM Interconnections, L.L.C. in Docket No. EO-11050309 (the New Jersey Board of Public Utility's Investigation of Capacity Procurement Transmission Planning), dated June 17, 2011, page 14.

("JCPL"), Public Service Gas & Electric ("PSEG"), and Rockland Electric ("RECO")) in the state.

These demand-side resources, combined with those resulting from policies supported within the State, make a difference in lowering the cost of electricity in the state. For example, this summer, PJM dispatched thousands of megawatts of demand-response to help meet high demand; had those resources not been available to PJM, the region would have needed more (and relatively more expensive) power plants to do that job.

The most recent PJM capacity auction for 2014/2015 (with results shown in Figures 7 and 9) brought forward even more demand-side resources for the future, and indicates a robust response of generation, energy efficiency and demand-response from the competitive market.

In contrast, policies that subsidize conventional generation will distort the market, and undermine price signals for investments in demand response and energy efficiency. I know that COMPETE strongly opposes these subsidies and non-bypassable charges for generation service because it limits customers' abilities to choose and manage their energy solutions. The result will be increased energy usage in New Jersey and increased charges and total bills to customers.

Finally, I want to highlight one more point that is important for understanding the context of electricity prices in New Jersey and the outlook ahead. Clearly, **New Jersey's electricity prices reflect the relatively clean electricity mix of generation available to New Jersey.** These prices that reflect a variety of factors – including land availability and cost, taxes, labor cost, and, most notably, the mix of resources that produce electricity for consumers in the state. States with relatively low electricity prices are predominantly those in regions with a high amount of power produced from coal plants (some of which have not yet made investments in air pollution control equipment of the sort that already exists at New Jersey power plants). (Figure 9 compares states in terms of their reliance on coal, and their average price of electricity.)

I highlight this fact about the generation mix of a state, because it explains so much about why New Jersey consumers pay higher electricity costs, relative to certain other states.⁴ I also mention it because it is hard for a state to change its electricity mix very

⁴ I have examined this issue in prior studies for example, S. Tierney, "Decoding Developments in Today's Electric Industry — Ten Points in the Prism," prepared at the request of the Electric Power Supply Association, October 2007; S. Tierney *et. al.*, "Fuel Diversity in the New York Electricity Market," prepared at the request of the New York ISO, September 2008.

fast. New Jersey relies on coal for 8 percent of its electricity production. The fleet of generation assets located in New Jersey reflects New Jersey policymakers' many and successful efforts to impose environmental controls on power plants located within the boundaries of New Jersey, and to encourage production of power with lower emissions through use of natural gas and nuclear power. In fact, the coal-based fleet of generators located in New Jersey is among the cleanest in the country. This reflects stronger requirements imposed historically on power plants located in the states along the DC-to-Boston corridor relative to those plants in upwind states (until about now, as the upcoming Cross-State Air Pollution Rule and the proposed Utility Air Toxics will affect uncontrolled and under-controlled coal-fired power plants in upwind states in future years). To the extent that these regulations are implemented in a timely fashion, the price differences that exist today between unscrubbed coal and cleaner generation will lessen.⁵ Given these facts, it would be a mistake to conclude that relatively higher prices are a sign that competitive markets are not working as intended.

In conclusion, I appreciate the opportunity to provide the Board with context for the important decisions it will make in this proceeding. The market is strong and contributes significantly to the state's goals for reliable, efficient and clean energy supply. Market solutions and competition are the best way to deliver sustainable value to customers.

⁵ In fact, even before those air regulations take effect, electricity prices in the states with more reliance on coal have already risen more in recent years compared to states (like New Jersey) with less use of coal. This is shown in Figure 10, which displays each state's percentage reliance on coal and its change in electricity prices from 2007 to the present, as well as the rate of inflation over the same period. States, like New Jersey, with little coal (and more gas) have experienced price increases that are lower than inflation, and states with more coal reliance have experienced price increases higher than inflation. This is not surprisingly to me, in light of the fact that coal prices to electric generators have increased by around 35 percent since the start of 2006, and natural gas prices have dropped by approximately 50 percent over the same period (with much sharper decreases since early 2008, when natural gas prices were at their peak since 2006). Therefore, we can expect to see a reduction in power price differentials between New Jersey and states with a heavier coal reliance in the future.