

Mailing Address: 609.909.7033 – Telephone  
92DC42 609.393.0243 – Facsimile  
PO Box 6066 [andrew.mcnally@exeloncorp.com](mailto:andrew.mcnally@exeloncorp.com)  
Newark, DE 19714-6066 atlanticcityelectric.com

Overnight Delivery:  
500 N. Wakefield Drive  
Newark, DE 19702

September 16, 2019

**VIA ELECTRONIC MAIL**  
[emp.comments@bpu.nj.gov](mailto:emp.comments@bpu.nj.gov)

Aida Camacho-Welch  
Secretary of the Board  
State of New Jersey  
Board of Public Utilities  
44 South Clinton Avenue, Suite 314  
P.O. Box 350  
Trenton, New Jersey 08625-0350

**RE:** Comments of Atlantic City Electric Company on the  
Draft 2019 Energy Master Plan

Dear Secretary Camacho-Welch:

On behalf of Atlantic City Electric Company (“ACE” or the “Company”), please accept these comments in connection with the New Jersey Board of Public Utilities’ (the “Board”) request for input on the Draft 2019 Energy Master Plan (“Draft EMP”). The Company appreciates the opportunity to participate in this initiative and values the open and constructive way that the Board has solicited public input. Please note that ACE, as a member of the New Jersey Utilities Association (“NJUA”), has joined in comments filed by NJUA on September 16, 2019. The suggestions and policy recommendations offered in this letter are in addition to the comments reflected in NJUA’s submission.

As the Board reviews written comments and evaluates the input that was received at the EMP open public hearings from July through September 2019, ACE respectfully requests that the Board consider the following comments.

**Contents**

Introduction & Vision ..... 2

Grid Modernization & Advanced Metering Infrastructure ..... 5

    AMI ..... 6

Beneficial Electrification ..... 7

    Transportation Electrification ..... 8

    Building Electrification ..... 11

Energy Efficiency ..... 12

Rate Design ..... 14

Offshore Wind ..... 16

    Cost ..... 17

    Curtailment ..... 18

    WIND Institute ..... 19

Distributed Energy Resources ..... 19

Integrated Distribution Plan & Non-Wires Alternatives ..... 21

Conclusion ..... 22

Appendix ..... 24

**Introduction & Vision**

ACE serves approximately 556,000 electric customers across southern New Jersey. The ACE service area extends over approximately 2,700 square miles and includes both rural and shore communities, Atlantic City and its casinos, industrial parks and farms, and diverse areas in between. ACE is committed to a safe, reliable, clean, sustainable, and affordable energy future for New Jersey, and enabling connections that facilitate the development and deployment of innovative technologies to reduce the State’s carbon footprint and enhance resiliency for our customers and communities. We applaud the Draft EMP and the outreach the framers of the document have conducted seeking public input. Together, New Jersey citizens, regulators, organizations, businesses, and companies like ours will need to work collaboratively to make this new energy future a reality for the State. ACE is pleased to offer its support for the vision of the Draft EMP.

To be sure, achieving significant reductions in carbon emissions is one of the main objectives of the Draft EMP, and ACE recognizes the importance of doing so. Similarly, creating a safe and sustainable energy future is a guiding vision for ACE. We are proud to deliver safe,

reliable, affordable, and clean energy to our customers and communities, while maintaining and building the energy network of tomorrow—a network that is more resilient, more connected, and that serves as the platform for accomplishing the State’s energy and climate policy goals. We are committed to being a partner and leader, together with the Board and other interested parties, in making the Draft EMP’s transformative energy vision a reality. Our commitment in this regard derives not merely because we provide power to South Jersey, but also because New Jersey is our home. Indeed, approximately 560 of our employees live in New Jersey’s communities, raise their families here, and volunteer their resources and time in our State.

To reach the goals outlined in the Draft EMP, ACE agrees that New Jersey’s government agencies must work in lockstep with a broad range of stakeholders, including the utilities, other industries, environmental organizations, consumer groups, and technology providers, among others. We agree that if New Jersey’s utilities and other stakeholders work collaboratively with each other and the State, we can achieve a cleaner and brighter New Jersey.

At ACE, we are seeing first-hand an ongoing transformation of the energy system with the customers and communities we serve. Historically, our customers expected us to deliver safe, reliable, and affordable power. Today, our customers want us to maintain these attributes while also delivering a cleaner energy future, equitable access to new energy services, and more choices, with a high focus on resiliency and decarbonization. As the local energy provider for much of South Jersey, we are a critical partner in advancing this clean energy future and providing climate and other energy solutions to all customers, equitably and affordably.

The effort to advance a clean energy future with more choices and services is already underway. We are seeing increased customer interest in New Jersey on everything from electric vehicles (“EVs”) to offshore wind, from private and community solar, to more options to save energy and increase control. ACE’s electric grid is central to the success of these solutions. A modern electric grid is the foundation—or platform—for New Jersey’s clean energy future. The electric grid is the infrastructure that reliably connects customers to more energy choices and services, and it will create more sustainable, vibrant, and livable communities.

Enabling these connections will allow communities and individual customers to enjoy expanded opportunities to not only meet their energy needs, but also to address broader societal, economic, and environmental goals, including those related to safety and security, innovation and inclusion, public health, and mobility. This “Connected Communities” vision is based on a reliable and resilient electric grid that leverages automation and technology to enable consumer transactions, support the interconnection of distributed clean energy technologies, and facilitate information flows so that customers and communities have the data they need to make the right decisions for themselves and their citizens.

Like the Draft EMP, ACE and Exelon view climate change as a critical environmental challenge facing the Nation and the planet. This past July was the hottest month on record for the planet, while over the past three years, climate-related disasters have caused more than \$650 billion dollars-worth of economic damage worldwide, according to a recent report issued by Morgan Stanley.<sup>1</sup> Communities and customers increasingly value zero-carbon sources of electricity supply including renewables, nuclear, and hydro power. More and more, customers are looking to ACE and other utilities to help them transition to a low-carbon future, while preparing for the impacts of a changing climate, including more frequent and severe storms, coastal flooding, and extreme heat. As such, Exelon and ACE support both technology-neutral performance standards to reduce the carbon content of electricity as well as the Draft EMP's decarbonization and grid investment goals, including through electrification of the transportation sector, the automation of the distribution system, and the advancement of energy efficiency, demand response, and distributed energy resources ("DERs"), including energy storage. When strategically and optimally deployed, dispatched and managed, these technologies and end-use solutions can all work together to build a cleaner and more resilient future for everyone.

ACE was also pleased to see that the Draft EMP focuses on low- and moderate-income ("LMI")<sup>2</sup> residents and environmental justice ("EJ") communities. As we all know, LMI consumers pay a much higher portion of their income for energy than other consumers, and many LMI communities will be the most impacted by climate change. Their limited financial means creates barriers to accessing new energy-related technologies and building resilience for themselves, their families, and their communities. The Final EMP should include policies that ensure that LMI residents and EJ communities will benefit from these new technologies, including transportation electrification, energy efficiency, community solar, and energy storage. ACE is well-positioned to further such policies and to help ensure that underserved communities receive direct benefits from new technologies that address climate change and other environmental and societal factors.

Exelon and ACE are committed to "powering a cleaner and brighter future for our customers and communities."<sup>3</sup> This statement truly serves as the foundation for ACE's support for the Draft EMP. The comments provided here are in the spirit of balancing the goals of the

---

<sup>1</sup> See <https://www.cnbc.com/2019/02/14/climate-disasters-cost-650-billion-over-3-years-morgan-stanley.html>

<sup>2</sup> "'Low-income household' means a household with adjusted gross income at or below 200 percent of the Federal poverty level. 'Moderate-income household' means a household with a total gross annual household income in excess of 50%, but less than 80% of the median income, as determined by annual HUD income limits." See Draft EMP, at 18 n.3.

<sup>3</sup> See <https://www.exeloncorp.com/company/Documents/Exelon-Annual-Report-2018.pdf>

Draft EMP in a way that provides affordable and sustainable energy for all customers, enables the understanding and sharing of best practices, improves reliability and resiliency, and builds on ACE's role as a strong and trusted community partner. It is through this lens that we provide our comments and recommendations on the Draft EMP.

## **Grid Modernization & Advanced Metering Infrastructure**

The electric grid is the foundation—or platform—for the more connected, distributed, resilient, and decarbonized future that New Jersey envisions. Without a modern grid, all of the distributed technologies that will support the 100% clean energy and the Global Warming Response Act's ("GWRA")<sup>4</sup> goals become more technically challenging, and ultimately less valuable—both from a decarbonization perspective and an economic perspective. To maximize the value to customers and leverage a foundational asset that already exists, and in which customers have invested, modernizing the grid to make it more automated, more resilient, and better able to accommodate two-way power and communications flows is critical. A modern and more automated grid will facilitate increasing numbers of energy transactions, ensuring the highest levels of power quality, and providing more options to those seeking the most affordable energy and environmental solutions.

There are many resources and tools that can help the State meet its clean energy goals. Such tools include innovative rates or rebates that encourage greater EV adoption and the electrification of the transportation system, and sophisticated data-driven forecasting for the increased deployment of clean and renewable energy. A modern grid with a smart energy platform that can help the State manage a very diverse mix of clean, renewable, and DERs will be increasingly vital as the electric grid—and technology—evolves.

It is important that existing regulations be carefully reviewed to identify barriers to rapid change and collaboration. This review would include potential changes to the New Jersey Administrative Code that would incentivize development of the modern electric grid and provide a reasonable path to cost recovery for utilities that implement these technologies, including Advanced Metering Infrastructure ("AMI"). Because New Jersey needs to catch up with other states in modernizing the electric grid, it will be important to make decisions as expeditiously as possible.

---

<sup>4</sup> The Global Warming Response Act, N.J.S.A. 26:2C-37, calls for a reduction of statewide greenhouse gas ("GHG") emissions to 80% below 2006 levels by 2050, equivalent to a total of 25.7 million metric tons of carbon dioxide.

## AMI

Meeting the State’s 2050 energy goals requires a collective effort by civic, commercial, and residential stakeholders, and AMI will be a key component of that effort. AMI is crucial to developing a modern grid because new technologies and energy platforms will increasingly rely on data driven inputs to be effective. A robust AMI platform enables and benefits all consumers and serves as a complement to other programs that promote clean energy and connected communities, including distributed technologies, smart streetlights, microgrids, EV charging infrastructure, and energy efficiency. AMI is perhaps most notable for its ability to empower customers, including those in LMI and EJ communities, with information about and control over their energy usage.

The Company agrees with the Draft EMP that the moratorium on AMI in New Jersey should end.<sup>5</sup> As the Draft EMP states, “[u]pon completion of the [cost-benefit analysis] and the final Energy Master Plan, *NJBPU should consider issuing recommendations to utilities for accelerated AMI installation in a strategic, coordinated, and efficient manner so the state can begin realizing the benefits of a connected grid while also containing costs.*”<sup>6</sup>

Once approved, AMI technology will provide numerous economic, social, customer, resilience, environmental, and operational benefits, including:

- Optimization of restoration efforts to shorten outage duration, leading to decreased cost and impact on customers; and
- Enhancing the ability of customers to understand and manage their energy usage and experience cost savings.

Exelon, ACE’s parent Company, is an industry leader in the deployment of AMI technology, with smart meters installed for more than 99% of their customers in Delaware, Maryland, Pennsylvania, Illinois, and the District of Columbia. To date, AMI technology has proven to be a value-added technology platform, providing Exelon’s five utilities operating in these jurisdictions—and their customers—tremendous opportunities including:

- Tens of thousands of reduced and avoided truck rolls, decreasing restoration costs and GHG emissions;
- Remote storm support;
- Peak energy savings and rewards programs;

---

<sup>5</sup> With less than 50,000 AMI meters installed, New Jersey ranks 48th in terms of AMI penetration in the United States. See <https://www.eia.gov/electricity/data/eia861/>.

<sup>6</sup> See Draft EMP, at 78.

- Improved outage modeling and restoration times;
- Advanced data analytics to identify theft, equipment damage, hazardous conditions, meter failures, meter tampering, and voltage issues;
- Implementation of Conservation Voltage Reduction, allowing utilities to reduce voltage levels to lower customer energy use, while continuing to deliver electricity at voltage levels that remain within prescribed engineering standards;
- Online web portals and billing statements that provide customers with detailed energy usage information to help them better manage their energy use and resulting bills; and
- Improved customer satisfaction.

ACE calculates the anticipated benefits of full AMI deployment in the ACE region to be approximately \$569 million over 20 years. While AMI meters have not yet achieved cost parity with traditional meters, the long-term benefits of AMI surpass the cost of removing and replacing traditional analog meters, resulting in a projected, overall net benefit to customers of approximately \$336 million.<sup>7</sup> As long as the AMI moratorium<sup>8</sup> remains in place, and ACE is not approved to deploy AMI, the installation of analog meters continues to be a prudent investment, and should be recognized as such. ACE welcomes the opportunity to discuss a strategy for deployment of AMI with the Board and Staff. The Company believes that AMI deployment can be done in a cost-effective manner, and in a way that maximizes the benefits to New Jersey customers.

## **Beneficial Electrification**

ACE and Exelon support the Draft EMP's goal to reduce energy consumption and emissions from the transportation and buildings sectors. We agree that in order to achieve the GWRA's goal of reducing State GHG emissions by 80% below 2006 levels by 2050, both the transportation and buildings sectors will have to be fundamentally transformed, since they account for the State's "highest energy consumption,"<sup>9</sup> and because the "largest emissions stem from the transportation and building sectors."<sup>10</sup>

---

<sup>7</sup> AMI Business Case, Atlantic City Electric Company Response to RQ-BPU-2, I/M/O The Board's Review of Major Storm Events of March 2018, BPU Docket No. EO18030255 (filed January 31, 2019).

<sup>8</sup> "In August 2017, Rockland Electric Company ("RECO") initiated an AMI case study throughout its service territory in Northwest New Jersey. In its Order approving the case study, NJBPU issued a moratorium on pre-approval of AMI rate recovery to the other electric distribution companies until the RECO AMI case study was completed and a Cost-Benefit Analysis was performed and assessed." See Draft EMP, at 78.

<sup>9</sup> See Draft EMP, at 25.

<sup>10</sup> Id., at 15.

### Transportation Electrification<sup>11</sup>

The Draft EMP sets forth aggressive goals to electrify the State's transportation system. As acknowledged in the Draft EMP, "the transportation sector accounts for 46% of the state's net greenhouse gas emissions, making it the largest emissions source in the state."<sup>12</sup> Therefore, to significantly reduce GHG emissions and health-impacting pollution, it is necessary to electrify the transportation sector.<sup>13</sup> In fact, transportation electrification can have an added benefit in LMI and EJ communities, which tend to be impacted the most by transportation-related emissions, noise, etc., while having fewer transportation options. ACE applauds the State for recognizing the importance of electrifying the transportation sector to achieve a cleaner and healthier New Jersey.

In May 2018, New Jersey took a significant step towards achieving a cleaner New Jersey by becoming the ninth state to join the Zero-Emission Vehicle Memorandum of Understanding ("ZEVMOU"), previously executed by the Governors of eight states, including California, Connecticut, Maryland, Massachusetts, New York, Oregon, Rhode Island, and Vermont. Collectively, the ZEVMOU states are committed to having at least 3,300,000 light duty EVs operating on their roadways by 2024.<sup>14</sup> New Jersey's portion of that commitment is 330,000 light duty EVs on New Jersey roads by that year.

ACE supports the Administration's and New Jersey's commitment to having at least 330,000 light duty electric vehicles on New Jersey roads a mere five years from now. The Company agrees with the Draft EMP that transportation electrification is essential to deliver the deep reductions in emissions that are needed to meet New Jersey's climate goals, and that this commitment sets a solid foundation for moving to a cleaner transportation sector.

As noted in the Draft EMP, consumer range anxiety is one of the key factors limiting the adoption of light duty EVs. In 2018, New Jersey ranked 45th in the country for electric charging outlets per registered vehicle. According to the International Council on Clean Transportation, less than 50 percent of the necessary charging equipment needed to support EV growth by 2025

---

<sup>11</sup> For more transportation electrification related responses, see Appendix, Questions 2, 4, and 5.

<sup>12</sup> See Draft EMP, at 27.

<sup>13</sup> The American Lung Association stated that the health impacts that can be attributed to the ozone-generating and fine particulate matter generating emissions of the 2015 gasoline-fueled vehicle fleets in 10 states to be significant increases in: asthma attacks, lost work days due to respiratory illness, premature death, heart attacks, and ER visits/hospitalization. These health impacts translated to roughly \$0.74/gallon of gasoline.

<sup>14</sup> See <https://www.zevstates.us/about-us/>



in the region had been installed as of 2017.<sup>15</sup> Indeed, the U.S. Department of Energy's Alternative Fuel Data Center reveals a scarcity of EV charging stations in many areas of the State, including underserved communities.<sup>16</sup> Increasing EV charging locations across the State is critical to reducing range anxiety, and should be addressed by leveraging both public and private resources.

ACE believes that the State's utilities, together with government, automakers, auto dealers, and other EV private market stakeholders, such as competitive EV charging companies, will play a critical role in deploying EV charging infrastructure. Investment in EV charging infrastructure will ultimately accelerate EV adoption and ensure electric transportation charging is available and affordable for everyone. The electric utilities are uniquely-positioned to support parts of this infrastructure deployment because the utilities already reach all people and businesses in their respective service territories. Electrification of transportation is a primary way that all electric customers in New Jersey, including LMI residents and those living in EJ communities, can benefit from existing and future efforts to make the electric grid cleaner. As cleaner electricity powers more of our energy needs, we all benefit from climate and air quality improvements— from both health and economic perspectives.

Considering the expanding EV market landscape and the State's commitment to electrifying the transportation sector, broadly, there are multiple models available to leverage the capabilities of the utilities to support investments for EV charging infrastructure across the State and for multiple segments of the transportation sector including:

1. Utility owned and operated Electric Vehicle Supply Equipment ("EVSE"): Under this model, the utility is responsible for all grid upgrades and modifications, in addition to the build-out, operation, and ownership of EV charging infrastructure at locations available to the public. In this model, the utility ownership of EV charging infrastructure is in addition to, and not in place of, other entities also operating and owning EV charging infrastructure.
2. Utility make-ready support for EVSE: Under this model, the utility is responsible for all grid upgrades and modifications related to the EV charging equipment; however, the EV charging equipment will be installed, owned, and operated by a third-party provider.

---

<sup>15</sup> Quantifying the Electric Vehicle Charging Infrastructure Gap Across US. Markets at ii: (January 2019). <https://theicct.org/publications/charging-gap-US>

<sup>16</sup> See <https://afdc.energy.gov/stations/#/find/nearest?fuel=ELEC>

3. Rebates and incentives for third-parties: Under this model, the utility provides incentives for a third-party to perform all make-ready work and install, own, and operate EV charging equipment, thereby stimulating the competitive market.

The foregoing models are not mutually exclusive, and can be used in combination with each other in order to facilitate the development of a robust EV environment consistent with the goals of the Draft EMP. ACE's EV petition (filed with the Board in February 2018) shows ACE's readiness to own and operate EVSE, and to offer other programs that further facilitate and encourage the deployment of EVs in New Jersey. ACE's EV petition proposed residential, multi-dwelling, and commercial, and public charging offerings. ACE's proposal not only supports the State's EV goal, but it also supports deployment of EV chargers in low density population areas, which can be hard to reach by the competitive market, as well as LMI and EJ communities, which are often exposed to a disproportionate amount of air pollution, and generally lag behind in reaping the benefits of new technologies that improve air quality.

The Draft EMP goals should be expanded to include mitigating additional forms of carbon-emitting transportation. ACE is encouraged by the Draft EMP's recognition of the need to improve New Jersey Transit's environmental performance and to reduce emissions through port electrification. As New Jersey Transit replaces its diesel bus fleet with cleaner vehicles, adequate EV charging infrastructure and station equipment are needed to ensure the performance of new vehicles in serving the public. ACE believes that the utilities can support initiatives for heavy-duty vehicles, such as buses and commercial heavy-duty vehicles, in addition to light-duty vehicles. Utilities can help to fund and install EV charging infrastructure for transit buses and Transit Villages, particularly those serving LMI residents and EJ communities. At the same time, as the transportation system becomes more electrified, strategically locating energy storage can help both build resilience and manage system impacts and costs. As the State moves forward with advancing the new energy future, allowing for and encouraging utility investments that meet multiple goals will provide added value for customers, as well as the broader energy system.

### Building Electrification

The Draft EMP sets forth aggressive goals to electrify the State's building sector in order to achieve GHG emission reductions of 80% below 2006 levels. Both new construction and building retrofits present opportunities to reduce emissions by allowing for the conversion to electric options. ACE stands ready to help the State meet its goals by combining energy efficiency and beneficial electrification programs in a cost-effective manner that reduces program administration costs, as well as customer acquisition and conversion costs. Incorporating the concept of beneficial electrification into an energy efficiency program development/assessment can accelerate adoption, allowing the State to meet its goals faster, and reducing the overall cost of building electrification.

Although electrifying vehicles and buildings may increase electricity consumption, electrification can reduce total energy use because electric motors, heat pumps, electric water heaters, and induction stovetops are more efficient than burning fossil fuels. Leading states recognize this reality and are incorporating beneficial electrification into their energy efficiency programs. Replacing oil and propane heating, for example, with electric heat pumps in the single family/small multifamily market meets societal cost tests and has a high potential for policy intervention and early adoption.<sup>17</sup>

ACE is encouraged by the Draft EMP's intent to expand and accelerate electrification in new construction. Both Pepco and Delmarva Power, ACE's sister utilities under the Exelon umbrella, were awarded the 2019 ENERGY STAR Certified Homes Market Leader by the U.S. Environmental Protection Agency ("EPA") for their outstanding contribution to incentivizing builders to install energy efficient technology in new residential construction. Pepco and Delmarva Power were among the first utilities in the country to support builders' installation of 100% LED lighting in all new residential construction. Today, Exelon Utilities are still innovating in this regard by incentivizing new smart thermostats and demand response-ready homes.

ACE supports the Draft EMP's intent to expand new construction programs to include Demand Response and EV programs. Notably, ACE offered and operated the Energy Wise Rewards direct load control program for more than 45,000 customers from 2010 through the summer of 2019. While this program has closed, the Company will design a new version of Energy Wise Rewards as part of its energy efficiency program portfolio under the Clean Energy Act of 2018 ("CEA").<sup>18</sup> This new program will recruit eligible installed smart thermostats to the demand

---

<sup>17</sup> See New York Analysis of Residential Heat Pump Potential and Economics, January 2019, New York State Energy Research and Development Authority, Erich Sherer Sr. Advisor.

<sup>18</sup> P.L.2018, c.17, [https://www.njleg.state.nj.us/2018/Bills/AL18/17\\_.PDF](https://www.njleg.state.nj.us/2018/Bills/AL18/17_.PDF)

response program, and will include a new optimization program as a cost-effective way to help the State meet its demand reduction and energy savings goals.

Additional utility-managed incentives and programs should be developed to encourage adoption of energy efficient heat pump and water heater technology. These technologies are more efficient than other fuel types, and their adoption will have a positive impact on meeting the State's goals. One way of encouraging growth of these technologies could be to explore utility program financing to reduce initial capital costs, which often inhibit increased adoption, particularly in LMI and EJ communities. Expanding financing to include other electrification technologies such as heat pumps, water heaters, EV chargers, solar, and energy storage could enable market transformation and bring these technologies to all customers, not just those with financial means.

## **Energy Efficiency**<sup>19</sup>

ACE is supportive of advancing the State's clean energy goals through energy efficiency savings, and likewise supports the Board-led stakeholder process to discuss associated programmatic, reporting, technical, and regulatory issues. It is important, however, for the Final EMP to provide a pathway to allow for the successful achievement of the two percent energy efficiency goal<sup>20</sup> and to align with the objectives of the CEA. ACE is ready to support this effort by implementing a robust portfolio of energy efficiency programs.

ACE is pleased that the Draft EMP indicates that the Board and/or its Office of Clean Energy ("OCE") will:

- Adopt a methodology for utilities to file energy efficiency program portfolios;
- Set and regularly re-evaluate utility-specific targets for reductions in energy consumption and peak demand;
- Establish a structure for utilities to recover costs incurred from developing, implementing, and evaluating energy efficiency and peak demand reduction programs; recover costs incurred from associated capital investments; and recover revenue impacts of resulting sales losses; and
- Engage stakeholders in program evaluation, measurement, and verification ("EM&V"), reporting processes and timelines, and program administration matters.

The Company views these collaborative efforts as critical to establishing and working through processes to meet the State's clean energy goals.

---

<sup>19</sup> For additional responses concerning energy efficiency, see Appendix, Questions 12, 13 and 14.

<sup>20</sup> P.L.2018, c.17, Sec. 3(a).

The Company notes that both utilities and the OCE have unique capabilities when it comes to achieving energy savings for New Jersey residents. It is a “best practice” for the utilities, many of which operate energy efficiency programs in other jurisdictions, to be overseen by a regulator that keeps program, EM&V, and overarching goals aligned. ACE believes that this model would work best for New Jersey to achieve its energy efficiency goals. Equally important, transitioning the role of OCE from that of a program implementor to that of a traditional regulator would create opportunities for OCE to collaborate with the New Jersey Department of Community Affairs (“DCA”) on codes and standards. DCA, with guidance from OCE, has the authority to set codes and standards to transform New Jersey’s market and environment. For example, California, a codes and standards leader, achieved 50 percent of its energy savings through market transforming standards. ACE views this model as the best path to successful energy savings.

The Board should also permit utilities to adopt and implement meaningful programs and new technologies, like AMI,<sup>21</sup> to encourage customer adoption of new products, achieve deeper energy savings, and develop clearer EM&V for energy efficiency initiatives, which apply to all energy efficiency providers in the State—both the utilities and OCE. Clear EM&V is critical to evaluating performance and goal achievement. To date, ACE has had little access to OCE program performance in the ACE service territory, and as a result, ACE has been put at a grave disadvantage in developing plans to achieve the two percent energy efficiency goal. Clear EM&V through AMI or other methods is essential, given that utilities could be penalized for not meeting energy savings goals. The Final EMP should clearly state that all current and future program implementors, including the OCE, must report their measures historically, and, if they continue to operate programs, on an on-going basis by utility service territory, using the same EM&V protocol that will be applied to the utilities.

ACE is committed to ensuring that opportunities to participate in energy efficiency programs exist for LMI residents and those living in EJ communities. It is important to the Company to help LMI customers reduce their energy bills, and to assist owners of limited income properties to maintain affordability for LMI households. For example, in Maryland, Pepco and Delmarva Power (ACE’s sister utilities), currently distribute energy efficient light bulbs at food banks. Furthermore, Delmarva Power has proposed a multifamily program targeting low-income areas and rent-restricted properties that participate in state or federal affordable housing programs. Additionally, PECO, Exelon’s Pennsylvania utility, has a direct-install, whole home service program for low-income customers that provides in-home audits, education, and direct installation

---

<sup>21</sup> AMI-supported energy efficiency programs are an important component of energy efficiency programs in other states. For instance, AMI-supported energy efficiency programs make up 40% of total energy efficiency savings for PHI’s operating companies in the Maryland service territory, and 11% of Commonwealth Edison’s (“ComEd”) annual savings goal in Illinois. Furthermore, interval data collected via AMI allows for demand response programs, novel rate design, and more detailed information presentment to empower customers.

of measures, and has served more than 50,000 customers. ComEd, Exelon's Illinois utility, has an energy efficiency plan that includes approximately \$35 million per year in dedicated program spending to serve LMI customers, including instant retail discounts, technical and financial assistance for energy efficiency improvements, and energy savings kits.

Lastly, since the Draft EMP's release, the Board delayed the timeline for the utilities to file energy efficiency portfolio petitions to August 2020. This postponement will delay New Jersey's achievement of the two percent energy savings goal, and will inhibit New Jersey's ability to advance beyond its ranking among the states in energy efficiency (it currently ranks 18th).<sup>22</sup> Unfortunately, during this delay, New Jersey electric customers will pay more in energy costs, no new jobs will be created, and more carbon will be emitted (pushing the timeline for achieving a low carbon environment further into the future).

In summary, ACE supports the Draft EMP's discussion of energy efficiency, but recommends that the Final EMP establish an appropriate governance structure that recognizes the key role that utilities will play in meeting the State's energy efficiency goals.

## **Rate Design**

As the Board considers the future of the electric distribution system in New Jersey, it is important to recognize the value of the electric grid to all customers, including those that take advantage of DER. This value can best be reflected through thoughtful rate design, which can encourage the integration of innovative technologies for the benefit of all customers. In a recent statement of principles issued by the Alliance to Save Energy ("ASE"), a non-profit organization that promotes energy efficiency to achieve a healthier economy, a cleaner environment, and greater energy security, ASE stated that "[r]ate designs should include the ability to collect for the use of the energy grid[.]"<sup>23</sup> According to ASE, such a principle can "drive future innovation in DSM [Demand-Side Management] services and business models in response to changing customer needs and the evolution of distributed energy management, generation, energy storage and control technology."

The Board should carefully consider rate design issues when planning for the grid of the future, and it should take advantage of opportunities to restructure rates consistent with the principle of cost causation to fairly allocate costs to all customers benefitting from the grid, including distributed energy resources ("DER") customers. In particular, decoupling and net energy metering policies should be re-examined to ensure that rates are structured in a manner that

---

<sup>22</sup> See <https://aceee.org/sites/default/files/pdf/state-sheet/2018/new-jersey.pdf>

<sup>23</sup> See Alliance to Save Energy, "Utility Rate Design Initiative: Statement of Principles," October 2016.

aligns with State policies and utility business models, particularly in an environment with increasing DER penetration and an increasing focus on energy conservation.

As acknowledged in the Draft EMP, the continued development and expansion of electric energy efficiency measures and demand response services for residential and small commercial customers is a key energy policy initiative for New Jersey. Without decoupling, energy efficiency and demand response programs reduce sales, and consequently, the revenues of utilities, making it difficult for utilities to recover their fixed costs. In the absence of decoupling, there is a disincentive for the utilities to support demand side resources and energy efficiency, because the traditional utility rate structure provides strong incentives for utilities to sell as much electricity as possible. By contrast, a decoupling mechanism disconnects sales from revenues, removing the incentive for utilities to maximize sales.

As of 2018, 29 states and the District of Columbia allow decoupling for the recovery of lost fixed costs due to lower sales.<sup>24</sup> In addition, the CEA contains an explicit statutory provision providing that utilities will be able to recover lost revenues stemming from the implementation of energy efficiency and peak demand reduction measures:

Each electric public utility and gas public utility shall file annually with the board a petition to recover on a full and current basis through a surcharge all reasonable and prudent costs incurred as a result of energy efficiency programs and peak demand reduction programs . . . , including but not limited to recovery of and on capital investment, *and the revenue impact of sales losses resulting from implementation of the energy efficiency and peak demand reduction schedules . . . .*<sup>25</sup>

Accordingly, the CEA expressly embraces decoupling for energy efficiency and demand response. That said, decoupling need not and should not be limited to the energy efficiency and peak demand contexts. In its most recently filed base rate case, ACE proposed a revenue decoupling mechanism intended to better align the interests of shareholders with customers, as well as support the clean energy and energy efficiency policy initiatives of the State. By removing the connection between a utility's revenues from the volume of electricity it delivers to customers, decoupling aligns a utility's shareholder interests with the interests of the customer.

---

<sup>24</sup> See ACEEE "2018 State Energy Efficiency Scorecard," October 2018.

<sup>25</sup> P.L.2018, c.17, Sec. 3(e)(1).

In sum, ACE believes that the Draft EMP, as well the CEA, necessitate a fresh look at decoupling, net energy metering, and rate design issues. Through thoughtful and forward-looking policies in these areas, the State can take significant steps towards achieving the goals set forth in the Draft EMP.

## **Offshore Wind**

New Jersey's goal of 3,500 megawatts of offshore wind ("OSW") generation by 2030 can play a significant role in achieving New Jersey's overall clean energy objectives. Indeed, the current Bureau of Ocean Energy Management offshore leases off the New Jersey coast have the potential to supply the State with thousands more megawatts of OSW generation capacity beyond the current goal. However, additional transmission planning and studies are required to identify how much OSW is possible using the current transmission system, the costs associated with the interconnection and upgrades to accommodate additional generation, and the optimal locations for OSW interconnections, with due consideration of reliability concerns, economic development goals, and minimizing undesirable environmental and community impacts.

Because the first solicitation for OSW was a bundled solicitation, the impact of transmission for OSW has not been adequately explored in a public forum. OSW developers were required to seek interconnections for OSW independently, and to include the cost of the transmission system in their bids. If future solicitations for OSW do not proactively and collaboratively plan for and integrate existing onshore transmission infrastructure, there is potential for OSW curtailments, as well as inefficient and costly transmission development that does not optimize existing infrastructure and rights-of-way ("ROW").

The Board should focus on transmission infrastructure between now and the next OSW solicitation. If transmission continues to be bundled in future solicitations, then a patchwork of uncoordinated offshore substations and radial lines may emerge, imposing multiple rounds of traffic and environmental impacts on local communities. New Jersey has a vast coastline, but points of interconnection are limited, and can be costly to access. Radial lines are sized for individual projects, and take up valuable positions that could have been more optimally utilized by an open access transmission system. As the State looks to install 3,500 megawatts of OSW (and beyond), transmission studies can identify the most efficient and least-cost transmission solutions that can: (1) optimally serve multiple wind farms; (2) reduce construction cycles; (3) reduce environmental and traffic impacts; (4) lower costs by avoiding incremental onshore transmission upgrades; and (5) maximize the benefits of OSW and transmission investments to New Jersey residents by examining potential power transfers from and to neighboring states.



PJM's Regional Transmission Expansion Plan requires developers to provide specific onshore interconnection requests for generation and merchant transmission (with interconnection location and megawatt size being among many details that are required). However, these studies only identify the upgrade cost associated with the requested interconnection. PJM's requests do not encompass a holistic, grid-wide look at New Jersey's intent to interconnect 3,500 megawatts of OSW. To date, no comprehensive studies have been conducted, making it challenging to estimate how much OSW can interconnect into New Jersey today. New Jersey's incumbent Transmission Owners ("TOs") possess a broad knowledge of the local transmission and distribution system, including design limits, available capacity, system resiliency needs, condition of assets, operational constraints to dispatch renewable resources, and the ability to identify least-cost opportunities to upgrade existing transmission lines. Accordingly, TOs can support the State in reaching its renewable generation targets.

ACE strongly believes that transmission is the key element to unlocking New Jersey's ability to integrate 3,500 megawatts or more of OSW, and that an open access, non-discriminatory transmission system should be the path forward. The incumbent TOs can play an integral role because they have the ROWs, existing infrastructure, and expertise to lower costs and facilitate construction of transmission assets that interconnect OSW resources to the transmission grid. Obtaining the requisite permits to build in a coastal community poses major risks, and ROW access can be prohibitively expensive. The utilities possessing existing ROWs can leverage them to reduce land use and environmental impacts. While the operation and maintenance ("O&M") associated with a single transmission asset can be significant, integrating an OSW transmission facility into a TO's existing O&M operation is relatively *de minimis*, and it further improves efficiency and enhances reliability.

#### Cost

European OSW prices have decreased over the past decade, and are lower than offshore wind renewable energy certificate ("OREC") contracts in the United States. The lack of a mature OSW industry partly accounts for this situation, along with the absence of robust competition in domestic OREC solicitations. While these two issues are hard to resolve in the short term, New Jersey can take a step in the right direction by examining the way it looks at transmission for OSW in the future. A non-discriminatory, open access transmission system that can be designed and built by the New Jersey TOs is critical to: (1) fostering competition for OSW; (2) optimizing the use of transmission infrastructure; and (3) achieving a best-fit, least-regrets transmission system. In short, resolving the transmission issue now can result in lower cost future OREC solicitations.

### Curtailement

OSW developers seeking to minimize their costs may desire “energy only” interconnections into PJM to avoid costly interconnection upgrades. An energy only interconnection requires that the customer only build facilities to interconnect its generator to the transmission grid (*e.g.*, lead lines and substation upgrades to interconnect). However, this approach ignores transmission upgrades to the greater PJM grid that would help to ensure that OSW megawatts are not curtailed. While energy only interconnections offer a low-cost solution in the short-run, OSW generators may be asked by PJM to reduce their output during periods of congestion or transmission outages, resulting in energy curtailment. Generators will only be compensated for the energy they deliver to the grid, and while New Jersey may not appear to be at risk today, eventually, as more generators interconnect, the risk of curtailment will increase. If left unaddressed, New Jersey’s grid may become incapable of delivering OSW in sufficient quantities to meet its portfolio standards. To avoid this result, a well-coordinated transmission plan, with generator deliverability analysis, is needed to proactively identify system constraints and support economic decisions for both OSW developers and New Jersey customers.

If OSW generators seeking to interconnect with the PJM grid request capacity injection rights, PJM will only grant a small portion of the total energy as capacity. For example, one PJM queue request seeks to interconnect 816 megawatts of OSW at Jersey Central Power & Light’s Ocean Wind 230kV substation in Monmouth County. PJM has assigned approximately 27.57% of this figure, or 225 megawatts, as eligible for capacity injection. Accordingly, deliverability upgrades will only be built to accommodate 225 megawatts. As a result, in certain peak situations, the energy output of the wind generator would be curtailed from 816 megawatts to 225 megawatts.

Curtailement scenarios are not ideal. A coordinated, non-discriminatory, open access offshore transmission system would minimize curtailment. When combined with energy storage, regulators can ensure that each megawatt of OSW interconnected to the New Jersey grid will reach New Jersey customers. The incumbent utilities can optimize the amount of energy storage resources needed to minimize curtailment, and can avoid the need for additional infrastructure investment. Unfortunately, an integrated resource study to address these issues has not yet been performed. While individual studies are taking place on energy storage, transmission, and OSW, ACE is not aware of a comprehensive study focusing on the optimal design of energy storage and transmission to serve New Jersey’s OSW needs. However, ACE stands ready, willing, and able to help New Jersey explore these options.

### WIND Institute

ACE supports the proposed creation of the Wind Innovation and Development (“WIND”) Institute. The activities that the WIND Institute will engage in can result in positive impacts for local communities, including workforce training, plus the benefits that will be derived from investments to bring aspects of the OSW supply chain to New Jersey. ACE believes that the WIND Institute is an important part of growing the OSW industry in New Jersey, and the Company is eager to participate in this initiative.

Stockton and Rowan Universities have memorandums of understanding in place with Ørsted to further academic research and initiatives regarding OSW. These institutions could be leveraged as part of the WIND Institute to provide a best-in-nation education, research, innovation, and workforce training clearinghouse in New Jersey. Housing the WIND Institute near the local communities impacted by OSW will ensure that these communities can participate in and directly benefit from the industry. ACE looks forward to hosting WIND Institute meetings, providing a forum for the Institute’s activities, serving on advisory boards, supporting training programs, and exploring research and development efforts.

### **Distributed Energy Resources**

Shifting New Jersey’s fuel mix to renewable sources and DERs is key to meeting the State’s clean energy goals. ACE supports New Jersey’s efforts to transition to 100% clean energy by 2050, and has begun efforts to accommodate increased penetration of renewables on its electric delivery system. Important to this transition is simplifying the process for customers and third-party developers to interconnect DERs to the distribution system. In removing barriers to interconnection, ACE has facilitated greater penetration of DERs on its electric delivery system, enhanced the developer experience, and increased customer satisfaction.

ACE has made significant investments in streamlining its interconnection processes for DERs, increasing the transparency of its interconnection approval processes, and preparing for greater amounts of DER deployment. In 2015, ACE became the first New Jersey utility to provide interconnection hosting capacity maps to customers and developers.

ACE can be a strong partner in accomplishing the DER-centric goals outlined in the Draft EMP. ACE has a vital role to play in the ownership, deployment, and management of DERs and energy storage. DERs and new energy storage technology offer an opportunity to better manage the delivery and reliability of electricity on the grid.

In addition, appropriate siting of community solar facilities at select interconnection points, together with supportive energy storage, where applicable, will enhance the economic value of community solar installations. Because the utilities are in the best position to identify the optimal interconnection sites for these resources, they should be afforded the opportunity to own and operate community solar facilities, as well as opportunities to manage non-utility owned facilities as a grid resource, providing additional value to both the solar facility owner as well as customers.

Similarly, if deployed at the appropriate sites and integrated into the utility's electricity delivery operations, which can be done through multiple mechanisms, energy storage can provide a range of grid benefits, such as capacity deferrals and improved reliability and resiliency. Some potential energy storage applications include:

- Deferral or avoidance of capital projects to address distribution system need, particularly where storage is used in conjunction with other non-wire alternatives (“NWAs”), such as targeted demand response;
- Increased solar hosting capacity, including enhancements for community solar;
- EV charging support;
- Peak demand reduction; and
- Resilience benefits.

Utilities are best-positioned to identify opportunities to defer distribution and/or transmission system expansion, manage the optimal operation of DERs and energy storage, monitor the performance of these systems through AMI technology, provide resilience in support of public needs, and enhance the power quality needs of sensitive customers. Given the unique strengths of the utilities, they can serve as developers of these technologies, providing the capital investments needed to achieve New Jersey's clean energy goals. It may also be appropriate for utilities to improve their distribution systems to accommodate additional DERs in support of public policy objectives, such as expanded feeder capacity for community and other solar and transportation electrification options, where the utilities would be permitted to recover their increased investments through overall distribution rates, rather than from the specific developers/owners of DERs.

While we applaud the inclusion of LMI residents and EJ communities in the Draft EMP, ACE believes the Draft EMP does not go far enough when it comes to affording these residents opportunities to participate in community solar. Currently, the Board's regulations prohibit ACE and the other utilities from developing community solar facilities as part of the Community Solar Pilot Program, despite the utilities' unique ability to provide community solar options at scale to LMI and EJ communities. We urge the Board to reconsider its position in this regard and allow the utilities to develop community solar as part of the pilot, which would help ensure that underserved communities receive direct benefits from these new clean technologies. A similar

approach should be considered for potential community energy storage options to enhance resilience for these same communities.

## **Integrated Distribution Plan & Non-Wires Alternatives**

The Integrated Distribution Plans (“IDPs”) contemplated by the Draft EMP would address increased DER integration, EVs, resilience, energy efficiency, and participation of customer devices in the overall operation of a cost effective, environmentally responsible electric grid. ACE supports the Draft EMP’s call upon the utilities to establish IDPs.<sup>26</sup>

ACE recognizes the new role that customer-sited DERs can have in the overall operation of the grid, and the Company supports transparency in the planning process, to allow customers and developers to understand where it would be best to locate their projects. As more and more DERs and other grid-edge energy devices penetrate the system, it will become increasingly important for detailed modeling, monitoring, and in certain circumstances, control of, edge devices to maintain the high reliability, safety, and resiliency. ACE has been a leader in providing hosting capacity maps, heat maps, and restrictions maps, and continues to provide these and other resources on its website. ACE continues to upgrade its distribution planning software to better analyze NWA<sup>27</sup> solutions, to provide a better platform for the IDP process, and to improve its ability to analyze trends and forecast DER activity.

With regards to timing, ACE believes that IDPs should be due one year from the order or regulation requiring each utility to submit an IDP (rather than one year from the issuance of the Final EMP). This approach would provide sufficient time for a utility working group to be convened to develop and outline the scope of the anticipated IDPs.

In the absence of convening a working group to discuss the scope of IDPs, ACE makes the following recommendations with respect to the principles that should guide IDPs. First, ACE recommends the establishment of a well-defined planning process that allows for structured stakeholder interaction with the utility in the course of the utility’s development of its distribution system plan. ACE believes this interaction is important to provide transparency into the kinds of investments that the Company seeks to make, and to facilitate a dialogue about the value of those investments to our customers. The Company also believes that the stakeholder processes should be streamlined, and should not be so lengthy that they cause deadlock or compromise reliability.

---

<sup>26</sup> See Draft EMP, at 73.

<sup>27</sup> NWAs are non-traditional transmission and/or distribution investments and operating practices determined by the utility designed to meet specific grid needs. These alternatives may include DERs such as solar photovoltaics, energy efficiency initiatives, demand response, energy storage, controlled EV chargers, new tariffs, or other grid edge energy devices.

Second, ACE supports the consideration NWA by utilities—including where on the system they will be needed and when they will be needed. Indeed, ACE actively considers NWAs today within the context of system planning, as these resources can be important tools in supporting grid modernization efforts, along with traditional infrastructure investments. That said, it is important for utilities to carefully analyze and provide guidance on the deployment of NWAs and DERs on their systems, to ensure that integration of these assets is done in the safest and most reliable manner, and at an affordable cost. Third, in situations where NWA solutions are considered by utilities to be technologically feasible and cost-effective, the compensation structure of the NWA will be important to get right—so that there will be a suitable set of incentives to support deployment of such assets to address grid needs. Finally, appropriate considerations and mechanisms should be put in place, commensurate with the performance risk relative to the type of technology deployed in an NWA, so that continued reliability of the grid is ensured.

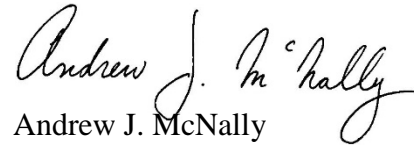
## **Conclusion**

ACE is committed to identifying and investing in new technology that will improve the efficiency and resiliency in its South Jersey service territory, and that will support the integration of increasing quantities of renewable energy and DERs. Proven technologies, such as AMI, can be deployed to support additional energy efficiency activities, innovative rate structures, improved outage restoration efforts, improved distribution system planning, enhanced efficiency of customer service operations, and can provide customers with data to better manage their monthly energy costs. ACE's development and operation of EV charging stations will help support the Draft EMP's EV goals by kickstarting New Jersey's EV market and decreasing range anxiety. Deploying utility-owned clean energy assets on the distribution system, when cost effective, will provide benefits to all customers, especially those in LMI and EJ communities. Additionally, there is an important role for the incumbent TOs to play in the expansion of OSW, because they have the ROWs, infrastructure, and experience in the planning, development, construction, and operation of the transmission needed to achieve the lowest interconnection costs. Where appropriate, deploying energy storage as a distribution asset will assist the management of intermittent renewable generation and variable electric loads. These technologies and others will support cleaner, more efficient, and more resilient electricity supply and delivery in New Jersey. To accomplish these goals, ACE and other New Jersey utilities need supportive State policies, timely cost recovery, and appropriate earnings opportunities to make necessary infrastructure investments.

Secretary Aida Camacho-Welch  
September 16, 2019  
Page 23

ACE appreciates the opportunity to partner with the Board and other interested parties to help shape a plan for New Jersey that thoughtfully considers evolving technological developments, and reflects the economic realities faced by the utility community and its customers.

Respectfully submitted,

  
Andrew J. McNally

## **Appendix**

### **ACE's Select Responses to the 2019 Draft EMP's Questions:**

#### **STRATEGY 1: Reduce Energy Consumption and Emissions from the Transportation Sector**

**Question 2: The state seeks to “lead by example” in the electrification of its fleet. What case studies, cities, states, etc. should New Jersey look to and learn from as it rolls out clean light-duty vehicles and buses?**

EVs are an integral part of Exelon Corporation's (ACE's parent company) portfolio for grid innovation. Exelon's utilities have obtained approval for EVSE related work in Illinois, Pennsylvania, Maryland, Delaware, and the District of Columbia. Case studies in Maryland, Illinois, and Pennsylvania highlight varying methods to stimulate EVSE development, including grants, private-public partnerships, legislation, and utility filings.

Illinois - ComEd's innovative EVSE projects in Illinois were spurred by two grants from the U.S. Department of Energy to support the penetration of EVs in its service territory. In one project, ComEd is collaborating with partners including Virginia Tech to develop and demonstrate an extreme fast-charging EV station that will be installed within the Bronzeville Community Microgrid. For a second project, ComEd is collaborating with partners including the Chicago Department of Transportation to install EV charging stations to serve multi-unit dwellings and provide roadside charging assistance. ComEd also offers an electric vehicle mobility project, partnering with Innova EV, to mitigate first/last mile transportation problems for senior citizens in the Bronzeville neighborhood.

Maryland - In January 2019, the Maryland Public Service Commission approved a joint utility program from the Maryland EDCs for a robust program offering around EV incentives and infrastructure. These offerings included multiple utility-owned public chargers, discounts and rebates for EVSE for residential and multi-unit dwelling customers, support for workplace charging, special EV rates/credits for off-peak charging, and a dedicated customer education and outreach fund. The Maryland utilities have worked diligently to implement their respective programs, which went live on July 1, 2019.

Pennsylvania - PECO has offered customers who register their EVs with the utility a \$50 incentive, and is analyzing charging patterns in EV adoption to better understand anticipated future system impacts. To date, over 1,800 PECO customers have taken advantage of the rebate. PECO has also offered supplemental commercial customer rebates (\$500 per project) for installation of public or workplace level 2 chargers, as part of the Drive Electric PA program overseen by the



Pennsylvania Department of Environmental Protection, and funded by the VW Mitigation Settlement allocation to the state.

PECO also supports Pennsylvania Senate Bill No. 596. This bill would set a state transportation electrification goal, require utilities serving major metropolitan areas to sponsor independent third-party infrastructure needs assessments, and authorize the utilities to file infrastructure investment plans with the Pennsylvania Public Utility Commission to support infrastructure developments.

PECO is working with the Southeastern Pennsylvania Transportation Authority (“SEPTA”) to convert roughly 1,500 buses from diesel to electric over the next 15 years. To accomplish this, SEPTA and PECO are collaborating to identify areas of concern and opportunity, so that the transition from diesel to electric is as efficient as possible. PECO and SEPTA have worked together over the past decade to complete a pilot, which has led to SEPTA’s purchasing 35 electric buses to date. That pilot now acts as a catalyst to enable conversion of SEPTA’s entire bus fleet.

California - While not a state in which Exelon’s utilities operate, California is a leader in the country for the state’s long-standing commitment to electric transportation and the development of tools to incentivize customers, spur innovation, and stimulate the state’s EV market. This commitment has paid off, as the state accounts for nearly half of all EV purchases in the United States. The following list summarizes some of the varied tools related to transportation electrification utilized by the state:<sup>28</sup>

- Incentives, rebates, grants and vouchers;
- Local government procurement requirements;
- State government agency partnerships;
- Vehicle standards;
- Emission reduction requirements;
- Public Utilities Commission requirements to facilitate technology development and rate strategies;
- Approval for utility-owned EVSE;
- Utility-specific rates, rebates, and incentives; and

---

<sup>28</sup> <https://afdc.energy.gov/fuels/laws/ELEC?state=ca>

- Airport shuttle and transit bus requirements.

**Question 4: How can the state work with the private sector to increase publicly-accessible EV charging infrastructure?**

Like California, New Jersey should consider an assortment of resources to stimulate the private market to increase the deployment of publicly-accessible EVSE. This can be achieved through the offering of state and local grants, incentives and rebates, and utility programs. As the state notes in the Draft EMP, it is important to ensure that consideration is also given to deploy EVSE in areas that will positively impact LMI and EJ communities, which may require additional incentives and rebates.

**Question 5: How can the state work with the private sector to advance the technology for medium- and heavy-duty vehicles and incentivize private sector adoption of alternative fuel vehicles?**

New Jersey should create innovation funds and grants to incentivize technological advancements to develop cost-effective alternatives for medium and heavy-duty vehicles. As this technology advances, a pilot project would be effective in demonstrating the effectiveness of these technologies. As the market emerges, financial incentives will be required to spur early adoption. Several projects for medium and heavy-duty vehicles have already commenced in New York and California. These projects partner with the local utility and have offered rebates, incentives, and vouchers for programs involving buses and trucks. In some cases, additional incentives have been offered for transportation focusing on LMI and EJ communities.

**Question 6: What policy mechanisms should the state develop to reduce greenhouse gas emissions at its ports?**

The Board's recent award of 1,100 megawatts of offshore wind capacity means there will be a significant increase in industrial activity at New Jersey's ports, particularly at the Paulsboro port in ACE's service territory. It is imperative to ensure that this economic expansion does not result in poorer environmental performance. ACE can be relied upon to partner with various private and public stakeholders to implement the necessary equipment to support the beneficial electrification of the port, creating a cleaner environment as a result.

New Jersey should establish a goal for GHG reduction targets at its ports on a 5-year incremental basis through 2050. High up-front costs continue to be a barrier to electrifying New Jersey's ports. The commercial market should be incentivized to support the state government in converting vehicles and equipment at New Jersey's ports. Likewise, incentives and opportunities also exist to partner with utilities who can utilize their customer rate base to support these projects.

**STRATEGY 2: Accelerate Deployment of Renewable Energy and Distributed Energy Resources**

**Questions 7 – 11:**

See ACE's Draft EMP Response, at 19-20.

**STRATEGY 3: Maximize Energy Efficiency and Conservation and Reduce Peak Demand**

**Question 12: New Jersey is currently targeting annual energy efficiency gains of 2% in the electricity sector and 0.75% in the gas sector. Do you recommend that New Jersey be more aggressive in approaching its energy efficiency goals? Why or why not, how much annually is feasible, and how long of a ramp up period is needed?**

ACE believes that New Jersey should set the energy efficiency target at two percent and allow the utilities five years to achieve that goal, consistent with the legislation. According to ACEEE, achieving two percent savings would put New Jersey in the top tier of states regarding energy efficiency. The two percent target is reasonable, considering the current lack of energy efficiency programming in ACE's service territory, and the lack of performance data for OCE programs by service territory.

ACE's ability to reach the 2 percent target within five years will depend on several factors: the types of programs that it is approved to administer, the administrative structure of the OCE-managed programs, and consistent metrics for EM&V. Although ACE believes the two percent electricity energy savings goals are reasonable, it is only achievable with collaboration between the OCE and utilities.

To elaborate, the Board's Market Potential Study shows that approximately 90 percent of the maximum achievable electric potential for residential customers, and 93 for commercial customers, are covered by OCE programs. As such, the Board programs are saturating the market, leaving little opportunity for non-duplicative, utility-managed programs. To advance the Board's energy efficiency goals, the OCE should re-consider the types of programs that it administers, particularly as the utilities are mandated to reach certain targets, and penalties can be imposed for nonattainment.

**Question 13: What are the strengths and weaknesses of the utility-run energy efficiency programs, third-party supplier-run energy efficiency programs, and state-run programs that NJBPU should consider?**

The findings of ACEEE, as expressed in their February 15, 2019 comments in Docket QO19010040, are relevant here. ACEEE determined that the most common categories for

statewide administration of energy efficiency programs are: market transformation (including codes and standards and upstream/midstream programs), research and development, new construction, low-income programs, and workforce, marketing, and education programs. Applying the guidance from ACEEE, the Board should consider a collaborative program delivery method with each entity bringing its specialized skillset to achieve the goal.

The State focus should also focus on funding EM&V efforts and other statewide non-programmatic energy efficiency initiatives that can be implemented outside a stakeholder process. Such efforts could include advancing energy efficiency education, and supporting local government energy efficiency efforts through Sustainable Jersey. It could also include increased collaboration with the DCA concerning codes and standards.

Additionally, key infrastructure, specifically AMI, is necessary to cost-effectively and efficiently conduct EM&V. The utilities are best positioned to manage AMI-supported energy efficiency programs. AMI allows for better visibility and accuracy into energy savings and evaluation, and fosters robust programs, smart technology, and information for both the utility and the customer. Other Exelon operating companies have realized deeper and consistent savings through AMI-supported programs like Behavioral energy efficiency, Conservation Voltage Reduction, Smart Home Pilots, as well as customer satisfaction systems like “My Account,” which shows customers their daily energy use and offers suggestions for energy savings. These programs require access to customer data—data which is not available to OCE-managed programs. Accordingly, AMI is crucial in helping to achieve greater energy savings.

**Question 14: How can the state ensure equitable access to and benefit from energy efficiency programs for all residents?**

ACE believes there is significant energy savings potential in New Jersey. However, the potential is different for each utility’s service territory based on its demographics. ACE’s service territory, for example, has a lower population density than others in New Jersey. Rural communities, and the seasonal nature of occupancy in shore communities, creates challenges with program implementation, because it is more expensive to reach these customers, both from a marketing and program implementation perspective. Furthermore, although LMI customers and those in EJ communities are often hard-to-reach market segments, they are ones that stand to benefit significantly from energy efficiency programs.

To address concerns around equitable access, OCE should conduct EM&V on its programs, and allocate significant portions of its underspent program budgets to harder-to-reach markets to identify and realize greater energy-savings opportunities. OCE should also measure and report its

program performance by service territory. Enhanced reporting would provide greater transparency into the accessibility of OCE's energy efficiency programs.

Marketing is essential to reaching customers in remote areas, as well as LMI customers and those living in EJ communities. As mentioned, ACE faces customer engagement challenges in its service territory. That said, effective program marketing and customer engagement requires meeting the customer where they are. ACE currently engages with its customers through a variety of platforms, including the web, smart device apps, call centers, mail, text, and through partnerships with local organizations. ACE's customers can choose how to engage with the Company and how they want to be contacted. Further, the Company has customer data and can analyze customer information to develop personalized marketing campaigns that dovetail with existing communications to serve customers' needs. ACE's parent company has expertise in using these channels in other service territories, and is meeting participation and energy-savings targets in these portfolios.

Specific to the ACE service territory, programs that focus on existing buildings and offer energy-saving solutions for a range of multifamily buildings will better reach LMI customers. As the Market Potential Study identifies, 90 percent of the residential energy efficiency market potential is attributable to single family homes. However, multi-unit dwellings comprise about 20 percent of the housing in ACE's service territory. Energy efficiency adoption in multi-family buildings is challenged by a split-incentive, where property managers undertake the cost of the project, but residents receive the energy savings. Offering solutions for both property managers and tenants will help realize energy savings.

#### **STRATEGY 4: Reduce Energy Consumption and Emissions from the Building Sector**

##### **Questions 16 - 18:**

See ACE's Draft EMP Response, at 11-12.

#### **STRATEGY 5: Modernize the Grid and Utility Infrastructure**

##### **Questions 19 - 20:**

See ACE's Draft EMP Response, at 5-7, and 14-16.