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Ocean Advocacy Since 1984

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Submitted Electronically

RE: 2019 Draft Energy Master Plan

Clean Ocean Action welcomes the opportunity to comment on the New Jersey Board of Public Utilities' ("BPU") 2019 Draft Energy Master Plan ("EMP"). The following comments are rooted in the mission of our organization, "to improve the degraded water quality of the waters off the New Jersey/New York Coast."

The time for debate and half measures has long since passed. Climate change is real and already harming New Jersey's natural resources and residents. Aggressive and holistic action to reduce climate change impacts is needed yesterday, and the EMP must reflect the urgency of our climate crisis. As you know, the EMP acts as the overarching blue print for the energy policy of the state for the coming years –as such the final plan must outline a clear and concise pathway to achieving our renewable energy goals and overall energy reductions. The comprehensive plan must establish a direct pathway toward a true clean/green energy future and economy which will effectively and expeditiously transition the state away from fossil fuels toward clean renewable energy, while systematically and concurrently working to reduce energy demand though energy efficiency, conservation, and demand shifting. Based on the severity and seriousness of the harm being felt in our oceans, Clean Ocean Action submits the following recommendations to ensure that New Jersey becomes a leader in the green energy economy and reaches Governor Murphy's commitment to 100% clean energy by 2050.

I. Definition of Clean Energy

To begin with, Clean Ocean Action strongly urges the BPU to change the definition of clean energy as used in the EMP. The EMP currently defines Clean Energy as "carbon neutral electricity generation."[1] This is unacceptable as it undermines the true goals of establishing New Jersey as a leader in the renewable energy sector. It is imperative that this definition be as meaningful, narrow, and selective as possible since the overarching goal of the EMP is tied to the objective of reaching "100% clean energy by 2050." Therefore, COA urges the BPU to adopt a definition of clean energy that only incorporates truly green energy resources such as solar, wind, geothermal, hydroelectric, energy efficiency, energy conservation and storage. While it is important for the definition to be flexible to allow for technological changes, the current definition is far too expansive and allows energy resources which are environmentally harmful such as fossil fuel generation if combined with sequestration to be labeled as "clean energy". To effectively combat climate change we must focus on renewable generation and rapid decarbonization of our electric system. The current definition would hinder this transition and greenwash the important goal of reaching 100% true clean energy by 2050.

II. Codification of the Renewable Portfolio Standard

It is critical that we reach 100% clean energy as quickly as possible. The effects of climate change are already becoming more prevalent throughout the state. Increases in disease carrying mosquitoes and ticks are well documented because the insects are living longer due to longer summers and mild winters.[2] Algae blooms are becoming more prevalent in state lakes.[3] Moreover, sea level rise is occurring in the state at double the global average.[4] Therefore, COA applauds the Murphy administration for going above and beyond the current renewable portfolio standard ("RPS") and advocating for 100% clean energy by 2050. However, this goal has yet to be codified into binding law. Currently, the RPS is only codified to mandate that we achieve 50% renewable energy by 2030. While the EMP is focused on achieving the Governor's plan of 100% clean energy by 2050, it currently is not legally enforceable and therefore only acts as policy guidance for the BPU, rather than actual commitment. Therefore, COA urges the BPU to urge the legislature to solidify this critically important goal by enacting it into law.

III. Regulation of Greenhouse Gases

While the state has already taken a significant step in regulating greenhouse gas emission in the electric generation sector by re-joining the Regional Greenhouse Gas Initiative ("RGGI"), more

[1] Draft 2019 New Jersey Energy Master Plan – Policy Vision to 2050, pg. 22 (June, 2019).
[2] Fallon, *The effects of climate change in New Jersey are already here. They're everywhere.* New Jersey Record. (Aug. 23, 2019).
[3] *Id.*
[4] *See,* National Oceanic and Atmospheric Administration, *State climate summaries: New Jersey.*

must be done. The EMP must direct the BPU and the DEP to work together to adopt and implement a plan aimed at regulating these climate altering pollutants.

New Jersey is significantly behind other nations and jurisdictions in this respect. To date the European Union, Republic of Korea and Chinese province of Guangdong have all implemented carbon pricing mechanisms. Domestically, California has implemented a successful economy wide carbon pricing mechanism since 2013.[5] California's emissions trading system is expected to reduce greenhouse gas emissions from regulated entities by more than 16 percent between 2013 and 2020, and by an additional 40 percent by 2030.[6] California has also expanded its program by linking the regulatory scheme to the Canadian Province of Quebec. It is a central component of the state's broader strategy to reduce total greenhouse gas emissions to 1990 levels by 2020 and 40 percent below 1990 levels by 2030. In 2016 Washington followed California's leadership with the adoption of the Clean Air Rule.[7]

Importantly, it has been proven that economy wide carbon regulations will not hinder economic development. California's economy has grown every year since the adoption of its cap-and-trade program.[8] Most recently, Oregon almost passed an economy-wide cap-and-trade program. A report by the Berkley Economic advising and Research group found that if enacted, the bill would not only "spur widespread adoption of energy-saving technology by the year 2050" but would also "create significant economic growth."[9]

Carbon taxes and economy-wide cap-and-trade programs are well established and New Jersey has a sizable sample of case studies to use in determining which system is ideal for the needs and economy of the state. Therefore, due to the wealth of information on the subject and the clear need for further regulation of greenhouse gases, the state must begin to implement a system to regulate these harmful emissions.

IV. Valuation of Distributed Solar Resources

The EMP calls for the accelerated deployment of distributed energy resources. To facilitate this acceleration, COA urges the BPU to create a new pricing mechanism for distributed solar resources which would more accurately reflect the plethora of benefits offered by such systems. Net metering was a necessary and crucial first step in developing the residential solar

[5] 17 CCR § 95801
[6] Center for Climate and Energy Solutions, California Cap and Trade. Available at https://www.c2es.org/content/california-cap-and-trade/
[7] RCW. WSR 16-19-047 (Order 15-10)
[8] Lenny Mendonca, *The Story of California's Economic Expansion,* Los Angeles Daily News. (Aug. 16, 2019).
[9] See, Oregon Public Broadcasting, *Report: Economic Benefits of Cap and Trade Will Outweigh Costs in Oregon* (Feb. 11, 2019). Available at https://www.opb.org/news/article/carbon-oregon-cap-trade-costs-benefits-economics-/

industry in New Jersey. However, it has become clear that distributed solar resources offer many benefits above and beyond energy generation alone. As such, the BPU must ensure that the full suite of services provided is reflected in the pricing mechanism.

Under the Reforming the Energy Vision program in New York, the Public Service Commission has done exactly that and a similar model should be adopted in New Jersey. New York adopted the Value Stack Tariff for distributed solar resources, a new rate which the utility will purchase electricity from distributed solar resources that will phase out the traditional net metering. The entire premise of the value stack approach is based on the understanding that the benefits of distributed solar are more complex than the one-for-one exchange offered by net metering. By compensating customers for the full range of the distributed solar, not just the per KWh cost of the utility to produce the same amount of energy, the overall price of the rebate/credit provided to the customer is increased thus making it more financially motivating for investments in residential solar panels or community solar projects.

Under the value stack approach; there are five separate and distinct factors which determine the overall price of a distributed solar resource:

(1) Energy value, based on the day ahead hourly zonal locational-based marginal pricing on a per KWh basis; and
(2) Capacity value, based on retail capacity rates for intermittent technologies based on performance during the peak hour in the previous year; and
(3) Environmental value, based on the higher of the latest Clean Energy Standard Tier 1 REC procurement price, or the Social Cost of Carbon; and
(4) Demand Reduction Value, based on how much the system reduces the peak demand of the utility grid; and
(5) Locational System Relief Value, based on a factor of the relief of congestion in the local grid area of the project. Importantly, this is not applicable to all projects, but acts as a bonus for systems in areas which have significant grid congestion.[10]

New Jersey must adopt a similar approach to facilitate increase investment and adoption of distributed services. As the most densely populated state in the nation, large areas of land for utility sized solar projects are rare. Therefore, adopting such a system will also allow for creative deployment of distributed solar in places such as large warehouse rooftops, car parking lots, and others by making the return on investment more favorable. Moreover, by including a component such as the Locational System Relief Value and the Demand Reduction Value, the

[10] *See,* State of New York Public Service Commission: Case 15-E-0751 – In the Matter of the Value of Distributed Energy Resources (April 18, 2019).

pricing mechanism would be favoring investment into areas which are already burdened by high demand and congestion. Therefore, the system would promote smart deployment of distributed solar throughout the state.

V. Energy Efficiency and Conservation Must be the Highest Priority

COA strongly urges the BPU to prioritize policies which lower overall energy need, demand and peak demand. Transitioning to renewable energy sources, amplifying storage opportunities and increasing electric vehicles are necessary to meet the proclaimed goal of 100% clean energy by 2050. Energy reduction strategies must be the ultimate priority to ensure that overdevelopment does not occur, consumer electric bills remain stable, and we decarbonize in the most cost effective and meaningful manner.

Currently, New Jersey has the 12th highest electricity rates in the entire nation, and the highest of all states in the PJM interconnect.[11] Adoption of renewable energy and the massive infrastructure needed to support utility scale projects, such as offshore wind farms, will only increase the cost of electricity in the state if it is not coupled with efforts to implement serious energy efficiency and peak demand management programs. A report by the Lawrence Berkeley National Laboratory found that energy efficiency programs funded by utility consumers are the most cost effective programs for energy and greenhouse gas emission reductions.[12]

Furthermore, investments in energy efficiency will not only ensure the state is seeking to lower greenhouse gas emissions and transition to renewable energy in the most cost effective way, but will also stimulate economic development and job growth. Energy efficiency is the number one job creator in the clean energy economy, accounting for three of every four American clean energy jobs.[13] Nationally, energy efficiency in 2016 accounted for 1.9 million U.S. jobs.[14] Importantly, the jobs created through energy efficiency are not limited to shovel-ready construction jobs, which boost employment for a limited window, such as new energy generating infrastructure. Instead, energy efficiency creates long term and skilled jobs. The jobs range from local heating, ventilation, and air conditioning companies, manufacturers, appliance

[11] U.S. Energy Information Administration, State Electricity Profiles (January 2018). Available at https://www.eia.gov/electricity/state/

[12] *See,* The Cost of Saving Electricity Through Energy Efficiency Programs Funded by Utility Customers: 2009 – 2015. Energy Analysis and Environmental Impact Division of Lawrence Berkeley National Laboratory. (June 2018). Available at http://eta-publications.lbl.gov/sites/default/files/cose_final_report_20180619_1.pdf

[13] *Id.*

[14] Energy Efficiency Jobs in America – *A Comprehensive Analysis of Energy Efficiency Employed Across All 50 States.* (Dec. 2016). Available at https://www.e2.org/wp-content/uploads/2016/12/EnergyEfficiencyJobsInAmerica_FINAL.pdf

factories, advance building materials, insulation installers, and weatherization companies.[15] In 2016, 38,378 New Jersey residents worked in energy efficiency related jobs.[16] Not coincidentally, the states with the highest energy efficiency employment numbers boost the most aggressive state energy efficiency policies.[17]

Beyond job creation, energy efficiency also stimulates economic development through reduced consumer energy bills. Cost savings for consumers from energy efficiency will manifest into additional spending, creating more economic development and job creation.[18] Therefore pursuing an aggressive energy efficiency agenda will not only reduce energy consumption, but foster economic development. New Jersey has already seen the benefits energy efficiency can provide in terms of jobs, but the state can achieve much more.

Furthermore, energy efficiency is not only beneficial to the ratepayer, but also has numerous benefits for utilities, as well as the electric grid. These benefits include (1) production capacity cost savings, (2) production energy cost savings, (3) avoided cost of compliance with existing and future environmental regulations, (4) transmission capacity cost savings, (5) distribution capacity savings, (7) avoided line losses, and (8) minimizing reserve requirements.[19] According to the Regulatory Assistance Program, energy efficiency has been underutilized in part due to a lack of understanding by both utilities, and regulators, of the full benefits programs can offer.[20]

It is clear that energy efficiency and conservation measures offers the most bangs for the rate-payers buck in terms of combating climate change. Therefore, Clean Ocean Action urges the BPU to:

(1) Focus on removing consumer barrier to energy efficiency by mandating investor owned utilities provide educational materials to customers within their service territory.
(2) Increase the amount of home energy audits by providing for greater customer awareness and adoption of energy efficiency, though targeted outreach, and by leveraging utility – customer relations, and mandating information on energy efficiency programing be placed on consumer bills.

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[15] *Id.*
[16] Environmental Entrepreneurs, *Energy Efficiency Jobs in America*, (Dec. 2016). Available at https://www.naesco.org/data/industryreports/EnergyEfficiencyJobsInAmerica_FINAL.pdf
[17] *Id.*
[18] Bell*, Understanding the True Benefits of Both Energy Efficiency and Job Creation*. American Council for an Energy Efficient Economy. Community Development Investment Review.(March 2014) Available at https://www.frbsf.org/community-development/files/cdir_vol10issue1-Understanding-the-True-Benefits-of-Energy-Efficiency-and-Job-Creation.pdf
[19] Jim Lazar, *Recognizing the Full Value of Energy Efficiency*, Regulatory Assistance Project. (Sept. 2013). Available at https://aceee.org/files/pdf/conferences/eer/2013/4B-Lazar.pdf
[20] *Id.*

(3) Petition the legislature to ensure the funds collected from the Societal Benefits Charge are specifically utilized for energy efficiency programs, and not continuously subject to transfers to the general fund.
(4) Ensure stable and consistent funding for energy efficiency programs, not including the funds generated from the Societal Benefits Charge.
(5) Adopt the Social Cost of Carbon as established by the Interagency Working Group for calculating the avoided damages associated with displacing CO2 emissions for all demand response management programs and energy efficiency projects evaluated under the cost-benefit analysis required under the New Jersey Clean Energy Act.

VI. Combatting Peak Demand as an Energy Reduction Tool

As previously stated, the effects of climate change are already being felt in New Jersey and we can expect more dramatic impacts in the next coming years. A major effect will be longer, hotter and more humid summers.[21] Therefore, peak demand is likely to increase over the next coming decades. It is critical that the state develop robust policies and programs aimed at increasing demand-side management programs ("DSMPs").

DSMPs, such as demand response, time-of-use rates, and energy efficiency, can be extremely effective if implemented correctly. DSMPs create reductions in peak demand and thus alleviate the need for new generation facilities, such as harmful peaking natural gas power plants. The prices that utilities pay during peak demand hours drive up overall electricity prices and therefore harm consumers. Moreover, in the PJM interconnect, 10% of infrastructure investments are used just to meet 1% of the hours of the year.[22]

Clean Ocean Action specifically urges the BPU to (1) mandate default residential demand response programs for all customers with smart meter technology, and (2) require all investor owned utilities ("IOU") develop time-of-use rates ("TOU rates").

1. <u>Residential Demand Response</u>

The BPU should direct all IOUs to develop a default residential demand response program for all customers with smart meter technology.

[21] Kendra Pierre-Louis, *Heat Waves in the Age of Climate Change: Longer, More Frequent and More Dangerous,* The New York Times (July 18, 2019).
[22] PJM, *Demand Response and Why It's Important.* Available at https://www.pjm.com/~/media/markets-ops/dsr/end-use-customer-fact-sheet.ashx

A report by the American Council for an Energy Efficient Economy found that demand response programs can reduce peak demand by roughly 10% on average.[23] Baltimore Gas and Electric's (BGE) Smart Energy Rewards program has been effective in shrinking peak demand while saving customers money and rewarding the utilities for reaching targeted goals. This represents an ideal model for New Jersey to adopt.

BGE is Maryland's largest utility and it began the program in 2012.[24] The program is the largest demand response program in the nation, accounting for 20% of all residential dynamic pricing customers in the United States as of 2017.[25] The program automatically enrolls all customers with smart meters. These customers are subject to the program unless they chose to opt out.[26] Enrolled customers are compensated with rebates on their monthly electric bills for reduction in energy usage during specific peak demand events called "Energy Savings Days". While the days could be anytime throughout the year, the primary focus is on combatting summer peak demand.[27] BGE determines the Energy Savings Days based on market conditions where electric demand is expected to rise significantly or when system reliability may be compromised from excess demand and reduced supply.[28] Once BGE determines an Energy Savings Day, the utility notifies enrolled customers by phone, email or text. The customers who reduce their usage from 1 p.m. to 7 p.m. during the Energy Saving Day receive a $1.25/kWh bill credit.[29] The program does not penalize customers for failure to reduce usage during the day, as a TOU rate would, but instead entices customer action through potential savings.

Since starting in 2013, the number of eligible and participating customers has consistently grown.[30] The program has resulted in over 300 MW of peak demand reduction each year.[31] The large consumer participation levels are attributed to (1) the default nature of the program with an opt-out provision, (2) consumer understanding, and (3) increased adoption of smart meters.

BGE also benefits significantly from the program through the ability to sell peak energy demand reductions on the PJM wholesale market, thereby creating dollar benefits for customers

[23] *Id.*
[24] Rocky Mountain Institute, *Maryland's Behavioral Demand Response Program – Baltimore Gas and Electric's SmartEnergy Rewards Program*. Available at https://info.aee.net/hubfs/MD%20DR%20Final.pdf
[25] Dynamic Pricing 2017 Data Early Release: https://www.eia.gov/electricity/data/eia861/ 5 Energy reductions are measured against a baseline (i.e., the customer's average usage
[26] Supra note 16
[27] *Id.*
[28] *Id.*
[29] *Id.*
[30] *Id.*
[31] *Id.*

through the avoided cost, transmission reliability, and wholesale energy price suppression.[32] BGE is able to sell these energy and peak demand reductions directly into the PJM wholesale market.[33] These savings generate dollar benefits for customers through avoided costs, avoided capital savings and wholesale energy price suppression. BGE has estimated $93 million of avoided transmission capital expenditures and $72 million of avoided distribution capital expenditures as a result of SmartEnergy Rewards from 2013 to 2015.[34]

However, it is important to note that synergistic policies were enacted which made the SmartEnergy Rewards program successful. These include (1) the adoption of an energy efficiency resource standard, (2) full revenue decoupling, (3) capitalization of operating expenses, (4) wholesale revenue and shared earnings, and (5) Smart meter cost recovery.[35]

As a result of the clear benefits from a residential demand response program Clean Ocean Action urges the BPU to, first, direct all IOUs to create a similar residential demand response program targeting customers with smart meters, and, second, to consider allowing smart meter cost recovery to increase eligible customers' participation.

2. Time of Use Rates

New Jersey should require all IOU's to develop Time-of-Use Rates ("TOU") for both industrial and residential customers. Clean Ocean Action urges the BPU to (1) require all IOU to create a time of use rate for residential and industrial consumers, (2) mandate shadow billing for all customers highlighting the cost difference on monthly energy bills if enrolled in the TOU program and allow customers the option of enrolling, and (3) require each IOU to default the TOU rate, where customers can opt-out of the program if desired.

An effective TOU rate sets electricity prices high when peak demand drives system costs up and sets prices low during low demand hours when low-cost renewables tend to be abundant. Properly designed and deployed TOU rates can: (1) help customers save money by shifting their

[32] PJM, Load Management Performance Report. (January 2019). Available at https://www.pjm.com/-/media/markets-ops/dsr/2018-2019-dsr-activity-report.ashx?la=en
[33] *Id.*
[34] Supra, note 17.
[35] Beginning in 2008 Maryland has set energy efficiency goals through the empower program. Utilities must achieve annual incremental cost-effective energy savings of 2% of retail electric sales. In 2007 Maryland transitioned to fill revenue decoupling. A key enabling policy, in Maryland utility operating expenses for energy efficiency and demand response programs are treated as capital expenditures which are therefore fully recoverable through rate basing over a five year period. Maryland allows utilities to sell aggregated demand response commitments into the PJM capacity, energy, and ancillary services markets. The earnings from these sales are passed to customers with the utilities keeping a small portion of the revenue.

use away from high-priced time periods, (2) help utilities reduce operating expenses by lowering the highest demand they must meet, and (3) can move customer use toward periods when low cost renewables are in greater supply on utility systems, which again, saves costs for customers and utilities.[36]

Despite benefits of a TOU program, most utilities have not aggressively pursued TOU rates.[37] Currently, only 14% of US utilities offer residential TOU rates.[38] Moreover, where TOU rates are available, only 3% of customers are enrolled on average.[39] However, some states have aggressively implemented TOU programs.[40] The main reasoning behind inaction on TOU rates is a belief by regulators that customers cannot understand the rate structure and do not have the technology to manage them.[41] However, in a in a survey of customer responses to over 300 time-of-use rates in 62 pilot programs, The Brattle Group, an independent energy consultant, found that sufficiently prepared customers not only understand, but respond to TOU rates.[42] Brattle found that on average, residential customers reduce their on-peak usage by 6.5% for every 10% increase in the peak-to-peak price ratio.[43] Moreover, technologies like smart thermostats, which increase customer control, produce increased reductions. On average, customers with enabling technologies "reduce peak usage by 11.1% for every 10% increase in the price ratio."[44]

Two states can serve as a model for effective TOU rates: California and New York.

California is currently establishing a program that will put over 20 million customers on TOU rates.[45] Following an order by the California Public Utility Commission (CPUC), the three state IOUs must transition to default rates by 2019 which require customers to pay TOU rates unless they opt out.[46] San Diego Gas & Electric (SDG&E) will begin moving its customers in March, and Southern California Edison (SCE) and Pacific Gas & Electric (PG&E) were given until October

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[36] Ryan Hledik, Ahmad Faruqui, Cody Warner, *The National Landscape of Residential TOU Rates,* the Brattle Group. (November 2017). Available at http://files.brattle.com/files/12658_the_national_landscape_of_residential_tou_rates_a_preliminary_summary.pdf

[37] *Id.*

[38] *Id.*

[39] *Id.*

[40] *Id.*

[41] *Id.*

[42] *Id.*

[43] *Id.*

[44] *Id.*

[45] Herman K. Trabish, *As California leads way with TOU rates, some call for simpler solutions*, Utility Dive (September 2018). Available at https://www.utilitydive.com/news/as-california-leads-way-with-tou-rates-some-call-for-simpler-solutions/532436/

[46] *Id.*

2020 in order to prepare their billing systems. New Jersey should require TOU to be default program.[47]

Under New York's REV program, the New York Public Service Commission (NYPSC) is drastically expanding TOUs. The NYSPSC sees expanding opt-in TOU rates as a necessary step toward a more comprehensive rate design reform. In 2013, the average TOU rate enrollment in NY ranged between 0.1% and 1.9%. This was well below the national average which sat at approximately 25% in 2013.[48] The NYSPSC concluded that the factors important in redesigning TOU rates will be (1) the duration of the peak period, (2) the ratio between on and off peak prices, (3) critical peak pricing, and (4) the availability of tools to customers that enable them to respond to TOU price variations. With these in mind, the NYPSC directed each utility to develop promotion and customer education tools. Proposals to increase customer acceptance may include shadow billing to allow customers to compare their existing bills against a TOU option, and temporary bill protections providing assurance that customers will not experience higher bills for comparable total usage.

In New Jersey, both PSEG and Jersey City Power and Electric offer voluntary TOU rates. Clean Ocean Action strongly urges the BPU to do the following:

(1) First, mandate all IOU within the state to establish TOU rates; and
(2) Second, mandate that all IOUs create promotional and educational materials explaining the time of use rates to customers; and
(3) Third, mandate that IOUs implement a shadow billing program on all monthly electric bills highlighting the potential consumer savings available if the customer chose to enroll; and
(4) Fourth, after evaluating the effectiveness of the TOU rate consider requiring all IOUs who have established a successful program to make the rate system a default for all customers where individuals could chose to opt-out if desired.

VII. Create a modern regulatory structure for IOUs

Clean Ocean Action agrees with many of the goals and objectives outlined in the EMP, with some glaring exceptions such as the definition of "clean energy". However, the traditional Cost-of-Service regulatory model, which New Jersey still utilizes for regulating the financing and rate structure of investor owned utilities is an inherent barrier to many of the important aspects of the EMP. Therefore, the BPU must shift away from this model which promotes IOUs to increase

[47] *Id.*
[48] Scheer, *Response to Time Based Rates*, Lawrence Berkeley National Laboratory, LBNL-183029, June 2015 132

electric sale growth thereby limiting investments into energy efficiency, demand response, load shifting, and other non-wire alternatives.

Clean Ocean Action specifically urges the BPU to: (1) decouple electric rates for IOUs, and (2) create effective quantitative performance indicators that reward utilities for reaching or exceeding environmentally targeted goals.

1. Decoupling.

First, New Jersey must join numerous other states in decoupling electric rates.[49] Decoupling revenue is a necessary action to ensure the benefits from the diverse suite of DSMPs, such as energy efficiency and demand response programs, are fully realized.[50]

The issue with the traditional "cost of service" regulation model is well documented. The throughput incentive severely hinders utility investments in energy efficiency programs and other DSMPs which result in less energy sales.[51] Utilities have an incentive, and under traditional regulation a right, to promote sales growth to recover on capital investments, which is generated when the fixed rates the government sets are recovered through volumetric sales of energy to consumers.[52] The EPA has noted that the throughput incentive is the primary barrier to aggressive utility investment in energy efficiency.[53]

Thus, without changing the underlying structure of utility regulation within the state, the development of quantitative performance incentives will be undermined by the inherent drive to continue to increase electric sales. A well designed decoupled system removes the link between the amount of energy sold and the revenue collected by the utility. In states with decoupled revenue, rates are adjusted so that utilities receive fair compensation to cover costs and provide a fair return to shareholders independent from the fluctuations in sales. Decoupling both removes the incentive for utilities to promote growth in sales and realigns profit making incentives to favor environmentally beneficial actions. Failure to transition to decoupled electric rates discourages energy efficiency, discourages distributed energy resources, distracts from service and policy goals, and creates high risk and revenue volatility.

[49] Currently nineteen states and the District of Columbia have enacted electric decoupling. *See,* Center for Climate and Energy Solutions, *Decoupling Policies.* Available at https://www.c2es.org/document/decoupling-policies
[50] *See*, Jenya Kahn-Lang, 2016. "The Effects of Electric Utility Decoupling on Energy Efficiency," The Energy Journal, International Association for Energy Economics, vol. 4
[51] National Action Plan for Energy Efficiency (2009). *Energy Efficiency as a Low-Cost Resource for Achieving Carbon Emissions Reductions*. Prepared by William Prindle, ICF International
[52] *Id.*
[53] *Id.*

Therefore, decoupling is a powerful and needed reform that will not only alleviate the shortcomings of traditional regulation, but will complement DSMPs such as energy efficiency and demand response, while promoting grid modernization. Studies indicate that revenue decoupling is an enabling policy for all DSMPs.[54]
The benefits of decoupling include:

(a) Removing the incentive for increased electric sale and generation capacity by IOUs; and
(b) A reduction in the need for general rate cases, which reduces the costs of the ratemaking process; and
(c) A decrease in the financial risk for the utility because the policy reduces the volatility of traditional pricing; and
(d) Decoupling can motivate customers to improve building efficiency by creating a lower price for fixed rate components on utility bills with associated higher volumetric charges.[55]

Furthermore, decoupling has not been shown to adversely affect individual electric rates. The impacts from decoupling adjustments result in less than a $2.00 difference in a customer's average electric bill.[56]

Therefore, Clean Ocean Action strongly urges the BPU to decouple the electric rates for IOUs.

2. Establish Quantitative Performance Indicators for IOUs.

Second, Clean Ocean Action urges the BPU to design Quantitative Performance Indicators ("QPI") to account for environmental targeted utility actions. Moving toward a decoupled regulatory approach removes barriers from investment into energy efficiency and demand response. However, decoupling alone does not provide an incentive for investments or for a specific performance level. Even with a decoupling mechanism in place, investor-owned utilities often still have an incentive to make supply-side investments to provide greater returns to shareholders.

[54] Cross-Call, Dan, Rachel Gold, Cara Goldenberg, Leia Guccione, and Michael O'Boyle, *Navigating Utility Business Model Reform: A Practical Guide to Regulatory Design*, Rocky Mountain Institute, 2018. Available at www.rmi.org/insight/navigating-utility-business-model-reform
[55] See, *Id.*
[56] National Renewable Energy Laboratory, *Decoupling Policies: Options to Encourage Energy Efficiency Policies for Utilities.* Available at https://www.nrel.gov/docs/fy10osti/46606.pdf

Therefore, the BPU should establish reasonable earning opportunities through the QPIs. The main purpose of developing these QPIs should be to create a financial incentive for utilities to meet specific performance outcomes and targets that are consistent with public policy objectives, as well as placing DSMPs on an equal playing field with supply-side resources.

Performance incentives have been applied in electric utility regulation for over 25 years. The most common incentive mechanism has been for energy efficiency. At least 26 states have used performance incentives to encourage energy efficiency investments. The BPU should adopt a strong energy efficiency incentive that complements the established Clean Energy Programs.

For example, Rhode Island established an incentive mechanism for Narragansett Electric. The incentive mechanism consists of (1) five performance-based metrics for specific program achievements, and (2) a kWh savings target by sector. Different incentive amounts were awarded for meeting specific thresholds, such as the full target goal and exceeding the target goal.

A similar program should be adopted in New Jersey. The policy objectives that are utilized to create the performance objective should include the traditional utility obligations of safety, reliability, and affordability. However there should be a strong emphasis on promoting environmentally targeted objectives. These include (1) reductions in greenhouse gas and other harmful emissions, (2) overall energy reductions, (3) peak energy reductions, (4) expanded consumer choice, (5) grid resiliency and distributed energy Resource adoption, and (6) successfully developed and implemented TOU rates.

In developing these metrics the BPU must ensure that (1) the policy goals are accurately established, (2) the incentives are tied to the established policy goals, (3) the metrics are both clearly defined and readily quantifiable, and (4) financial incentives are directly reflective of the policy goals.

VIII. Development of 3,500 MW of Offshore Wind by 2030

While offshore wind energy has the potential to significantly reduce greenhouse gas emissions within the State of New Jersey, there will be unavoidable consequences to the ocean and marine environment. While Clean Ocean Action will work with developers as well as state and federal regulators to ensure that all impacts are avoided and/or mitigated to the maximum extent practicable, there will be impacts that cannot be alleviated. Clean Ocean Action only supports the development of offshore wind energy resources, and the necessary land-based supply chain and infrastructure needed for the new industry if the development of these

resources will see an overall drastic reduction in our reliance on fossil fuel in the energy sector and is coupled with energy efficiency and conservation measures. It is unacceptable to industrialize the ocean for the sake of our energy demands unless we stop building new fossil fuel infrastructure projects and rapidly replace existing facilities with renewable energy, while also lowering our demand through investments into energy efficiency and conservation. Thus, we recommend the BPU aggressively target energy efficiency to reduce overall energy demand and peak demand to ensure that the 3,500 MW of offshore wind generated is primed to replace existing fossil fuel-based generational needs.

IX. Vehicle Electrification

Clean Ocean Action is pleased to see the draft EMP expanding the scope from previous plans to include important sectors, such as transportation. As the draft EMP acknowledges, the transportation sector accounts for 46% of the state's net greenhouse gas emissions, making it the largest source of emissions within the state.[57] Therefore, it is critical that we both electrify the transportation sector and create more effective and efficient public transit opportunities. In terms of electric vehicles, it is important to both deploy vehicles, as well as the necessary infrastructure for charging, to make the switch from traditional combustion engines to electric more appealing to consumers. While the plan expressly states that a central goal is to focus on "deployment of EV charging infrastructure throughout the state" Clean Ocean Action recommends that the BPU also focus on home charging infrastructure.[58] The U.S. Department of Energy found that electric vehicle drivers do more than 80% of their charging at home. Incentives for home charging can include:

(1) Rebates on electric vehicle home chargers. We would further recommend having increased rebates for wifi/smart chargers to allow consumers to set and program charging during low demand hours.
(2) Development of TOU rates for EV owners to incentivize charging at optimal hours when demand is low or renewable generation is high.
(3) Building code mandates and regulations for large multi-unit dwellings, such as condos, apartments, and townhouses, to include shared EV infrastructure.

For Multi-unit dwellings, Clean Ocean Action urges the BPU to look to the leadership of California. California has been tackling this problem for years. Over one-third of Californians live in rentals or multi-unit complexes. In the larger cities, such as San Francisco, Los Angeles, and

[57] Draft 2019 New Jersey Energy Master Plan – Policy Vision to 2050, pg. 9 (June, 2019).
[58] *Id.*

San Diego, over 50% of the residents live in multi-unit dwellings. To foster EV adoption and plentiful charging infrastructure California took the following steps:

(1) Passed Senate Bill 880 which makes it illegal to impose any condition that "effectively prohibits or unreasonably restricts installation of charging in an owner's designated parking space.[59]
(2) Passed Assembly Bill 2565 provides that for a residential lease executed, extended, or renewed after July 1, 2015, "a lessor of a dwelling shall approve a written request of a lessee to install an electric vehicle charging station at a parking space allotted for the lessee that meets the requirements of this section and complies with the lessor's procedural approval process for modification to the property."[60] The law does not apply to residential properties with less than five parking spaces, properties that are subject to rent control, residential leases where no parking is provided as part of the lease, or residential properties where EV charging stations already account for at least 10% of available parking spaces.[61]

Clean Ocean Action also urges the BPU to ensure that the transition to electric vehicles will be environmentally positive by significantly reducing greenhouse gas emissions. By electrifying the transportation sector the state will be creating a significantly higher need for energy that did not previously exist. Therefore, the BPU must facilitate a swift and effective transition from fossil-fuel based electric generation to renewable generation to ensure that the transportation sector is truly reducing greenhouse gas emissions. Furthermore, it is clear that the electrification of the transportation sector will increase energy demand, thus the need for energy conservation and efficiency measures cannot be understated. Energy efficiency and conservation can alleviate the increased energy demand we will expect to see with vehicle electrification.

With the transportation sector accounting for almost half of the state's greenhouse gas emissions, it is imperative that New Jersey focus on aggressively shifting consumers from traditional combustion vehicles to electric vehicles. Clean Ocean Action strongly supports the EMPs goals in this regard.

[59] Senate Bill No. 880. Available at http://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201120120SB880
[60] Assembly Bill No. 2565. Available at https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201320140AB2565
[61] *Id.*

X. Conclusion

The 2019 EMP is a critical point for the State of New Jersey. The overall objectives of the plan call for rapid decarbonization, implementation of innovative technology solutions, and the rapid transition from fossil fuel to renewable energy. Clean Ocean Action is encouraged to see the state finally taking climate change seriously and focusing on addressing the issue in a meaningful way. We feel the points made in these comments, such as the need to make energy efficiency and conservation the primary tool to achieve emission reductions, will ensure that the important and broad goals outlined in the EMP are in the most cost-effective and forward thinking way.

Sincerely,

Cindy Zipf
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