Rockland Electric Company
Response to Request for Comments on
Integrated Energy Plan Model

November 15, 2019

Rockland Electric Company ("Rockland" or "the Company) supports the New Jersey's efforts to develop the strategic vision for New Jersey's clean energy future as set forth in the 2019 New Jersey Energy Master Plan ("EMP"). To further this effort, the Integrated Energy Plan ("IEP") is being developed to identify the least cost pathway to achieve the Governor's goals of 100 percent clean energy by 2050 and the emissions reductions set forth in the Global Warming Response Act while meeting the growing needs of the State's economy. The IEP's focus on the least cost pathway to achieve these goals will inform the development and implementation of future policies needed. The Company appreciates the opportunity to provide these comments on the IEP materials provided to date[1] and looks forward to working with the New Jersey Board of Public Utilities to develop and further refine the model and its assumptions as well as development and implementation of policies needed.

Rockland appreciates the magnitude of this undertaking, given the EMP's holistic approach to pursuing a clean energy environment, and concurs with the consultant's statement that the model should be updated for future planning and decision-making. The model provides a starting point for identifying the order of magnitude of the funding needed for the various technologies required to be deployed to meet these goals. The feasibility of achieving the deployment levels in the timeframes presumed in the model will be driven by not only the underlying costs of the asset deployment but also by other critical factors including the appropriate level of incentives, the education of and acceptance by end use customers and municipalities, technological advancements, the appropriate regulatory framework both at the State and local levels, and any unintended impacts such as the potential increase in low income residents' rent due to the recovery of the costs to electrify their residences. As a result, Rockland recommends the model be updated on a pre-established timeframe (*e.g*., at a minimum of every three years with the update of the EMP) with stakeholder input to account for changes in policies, technologies, adoption rates, and the regulatory environment.

As discussed in detail below, Rockland's comments focus on the absence of details on the assumptions used in the IEP model, the need to identify the sources of funding for the least cost pathway, the cost considerations for the least cost pathway and in particular the exclusion from the model of the cost of incentives to achieve the level of investment identified, and the timing of the release of the ratepayer impact analysis being conducted by Rutgers. Further, it is unclear how the model accounts for the feasibility of achieving the presumed level of investment within the timeframes expected. The model must be one that encourages prioritization of those clean energy efforts that will cost-effectively bring the most benefits to New Jersey residents.

[1] Rockland's comments are based on the PowerPoint presentations, RMI's emails to stakeholders, and stakeholder meetings including the November 1 webinar.

Clarity in Assumptions and Modeling used in Least Cost Pathway

Although the sources for inputs in the model are made public (*e.g.,* renewable costs are based on the NREL Annual Technology Baseline 2019 Cost Projections), it is unknown exactly how those costs are incorporated into the model. For example, the appropriateness and feasibility of the mix of technologies (*e.g.,* residential versus commercial solar PV) and their individual adoption rates, and the engineering feasibility for planning and reliability of the electric grid are critical factors that should be considered in the IEP and have not been provided in sufficient detail to allow for stakeholder analysis and feedback. In addition, during the November 1 webinar, it was stated that the amount of capital investment for utility infrastructure was conservative, but the actual dollar amount included in the model was not identified. It is important that the estimated infrastructure costs used in the model be provided to stakeholders so that the amounts can be refined, as needed, to reflect actual experience. Also important is the need for details on the assumptions used to calculate the clean air, health and other societal benefits referenced in the November 1 presentation.

Funding the Least Cost Pathway

Because the IEP informs the EMP, it is important for the State to consider what segments will fund the investments identified, and associated cost impact, in the least cost pathway. For example, analysis should identify the portion of costs that come from utility customer bills, end use customers directly (*e.g.,* one who purchases an electric vehicle (EV) or a more efficient appliance), and other State agencies or taxing authorities that may play a role in incentivizing adoption of renewable assets and new technologies. Importantly, the specific inputs should be made public so that stakeholders have the opportunity to provide input on all assumptions and potential impacts. Whether prior to the release of the EMP or soon thereafter, it is important for the State to conduct this analysis to understand the full cost impact of achieving the State's goals and prioritize those that bring about benefits to New Jersey residents cost effectively.

Cost Considerations for Least Cost Pathway

The Company recommends the following costs be included in a successful and informative model.

Incentives must be included in the least cost pathway as they will play a large role in the costs to achieve the clean energy and emission reduction goals. Whether these incentives are part of customers' utility bills or derive from another source, they must be accounted for and reflect the incentive level needed to drive investment and customer adoption. For example, the current model sets the price of a REC at the cost of the underlying asset however it should include additional amounts required for encouraging adoption and reflect the timing of those payments.

Further, the increased costs for the electric distribution system may be more than what is included in the model. For example, although the model currently assumes a winter peak that is projected to be double the current summer peak, the costs will likely not be as simple as doubling the current investments made in the system. Moreover, a future energy environment where a customer's energy needs are almost entirely dependent on electricity may require additional investments to further support reliability, maintenance, and operation. The increase in customers' demand for energy and the timing of that need will change the system's peak and may require an analysis of reliability standards that may increase costs on more than an exponential basis. Utilities are in the best position to support

the analysis and corresponding inputs to the model for these costs as utilities will be a key player in facilitating the path to a clean energy environment.

The model should consider the potential need to develop a new delivery system to meet the need for additional firm supply of electricity, identified in the model to account for the intermittency of renewable assets, above what is currently required to provide safe, reliable and affordable service to all customers. Because the natural gas system will be required to support the needs of a variety of end use customers, this system may not be available for repurposing for biogas or other clean firm energy. The current model presumes that not all industrial processes and less than 100 percent of buildings will be electrified which will require a natural gas delivery system be maintained. Electrification of 90 percent of building stock does not translate into an ability to retire or repurpose 90 percent of the existing natural gas infrastructure. Therefore, the costs to maintain the natural gas system should be included in the model as well as the costs for additional infrastructure needed for electrification. Working with municipalities to educate them on the importance, safety, and alternatives for siting these assets, including transmission and biogas storage, within their borders may increase the deployment costs, negatively impact the time needed for deployment, or both.

A successful model should incorporate the need for additional transmission, not only for the potential out of state clean energy that may be required but also for access to the additional clean energy technologies to be deployed within the State. The costs associated with this additional transmission will be dependent on the ownership model chosen, which is the subject of ongoing stakeholder meetings. Moreover, upgrades to existing transmission facilities (*e.g.,* for reliability, or to accommodate more distributed energy resources and offshore wind) and whether additional infrastructure will be needed to handle a statewide winter peak anticipated to be double that of the current summer peak must be considered.

In addition, the model should include the costs of investments earning a reasonable return, where those are allowed. For example, the proposed Transition Solar Renewable Energy Credit program contemplates an incentive that would provide the developer/owner of the asset with a pre-established rate of return. This must be considered as part of the asset's cost.

Finally, all amounts paid by ratepayers for the continued operation of the three qualifying nuclear facilities must be included in the costs of generation. To the extent ZECs continue to be awarded, their costs should be included in both the generation costs in the model and the ratepayer costs.

Cost Impact to Customers and Residents of the Least Cost Pathway

During the stakeholder process, Staff advised that Rutgers is conducting a ratepayer impact analysis which will be used to inform the Final EMP. The Company supports this effort and recommends that the analysis, including modeling and assumptions, be made public and available for stakeholder input prior to the release of the Final EMP or soon thereafter. The Company also recommends that a cost impact analysis include not only the utility bill impacts to customers, but also all other costs incurred as end-use customers. The types of costs that should be incorporated into a successful cost analysis include, but are not limited to incentive costs, costs for efficient and electrified assets, electric system costs, costs to modernize the distribution system, costs for ZECs, and stranded asset costs.

In addition, many of the costs that New Jersey residents and businesses will bear are not utility costs. The increased cost to replace an appliance with the most efficient model, purchase an electric vehicle, or replace existing heating systems with a heat pump will not be reflected on the utility bill but must be accounted for and reflected in the Final EMP.

Prioritization of Investments

Rockland strongly recommends that the State use the IEP, updated as needed as discussed above, to inform prioritization of those investments and programs that have demonstrated success or will bring the most benefits at the least cost for New Jersey residents and businesses. The State should also use the IEP to identify where significant amount of work is needed before the State can establish specific targets and timeframes for investments. Working with the EDCs will aid in identifying and developing investments, policies and programs that provide the most benefits to the electricity system and all customer groups. Some examples include:

- Utility Energy Efficiency Programs: Utility run energy efficiency programs with the correct regulatory structure is critical to meeting these goals. Utilities understand their customer base and can tailor programs to meet the needs in their service territories thereby supporting one of the assumptions in the IEP – that all appliances are replaced with the most efficient appliances. The proper regulatory framework, including a decoupling mechanism, an achievable performance incentive, and an allowed rate of return on energy efficiency investments, will drive the development of successful energy efficiency programs.
- Utility Ownership of Renewables: This policy may help bridge the transition to a clean energy economy, enable the market, and manage the cost impact to consumers. Utilities have a comprehensive understanding of the needs of the electric grid and the opportunities for deploying clean energy technology in a manner and in locations that maximize the benefits to all customers and smooth the transition to New Jersey's clean energy future.
- Rate Design: Effective rate design can facilitate customers making economically-efficient decisions regarding their energy options, including adoption of technologies that allow customers to optimize their energy consumption, leading to a more efficient use of the energy grid. Coupling rate design with the utility's ability to deploy assets economically can bolster the adoption rate of clean energy technologies. For example, rates that encourage EV charging at times that benefit the grid (*e.g.*, non-peaking times) along with the utility's ability to deploy EV chargers in the near term to kick-start the EV market are important policies that will help to meet the IEP's assumption that 100 percent of light duty vehicles will be EVs by 2035. It is also important that rates reflect the fair value of the services customers receive from the utility for grid connection, provide customers fair value for any service they provide to the grid, and encourage siting in locations that provide the most benefits.

Finally, there are a number of considerations that may not be appropriate to include in the IEP's "purely economic" model but need to be considered by the State when laying the foundation for the path forward. This includes considerations beyond the minimum amount of a particular technology needed to meet the State's goals, but also an understanding of the feasibility of doing so. For example, the feasibility of the amount and timing of asset deployment is dependent on many factors, such as available land, transmission capacity, permitting and siting regulations, and fire safety concerns. The difficulty in quantifying these impacts increases the need for publicizing all of the assumptions

underlying the IEP to allow for stakeholder input on the feasibility of various paths and identification of groundwork that may be needed before specific investments and technologies move forward.

Conclusion

The Company appreciates the State's efforts to evaluate the cost impact of the clean energy and emission reduction goals on both the statewide economy and the individual ratepayers and end use customers, residents and businesses. The Company looks forward to partnering with the BPU and other state and municipal entities to develop and implement policies and programs that move the State forward to achieving these goals while minimizing the bill and overall cost impact to all utility customers and end use customers. Drawing on its expertise with operating its electricity system and on the experience of its New York utility affiliates in developing and administering clean energy programs and interconnecting clean energy assets, Rockland stands ready to take the next step in the successful achievement of the Governor's goals and New Jersey's vision for a cleaner future.