2019 Energy Master Plan Committee

Sustainable and Resilient Infrastructure Stakeholders Meeting
September 28, 2018

Kin Gee's Public Comments

Thank you for the opportunity to provide comments for the 2019 Energy Master Plan and, specifically, on Sustainable and Resilient Infrastructure. For the record, my name is Kin Gee and I am the President of a citizen group called CHARGE – Consumers Helping Affect Regulation of Gas & Electric.

First of all, we support New Jersey's plan to convert energy production profile to 100% clean energy sources by 2050. The summer of 2018 has just ended. According to Dave Robinson, geology professor at Rutgers and New Jersey's official climatologist, it will go down as the fifth-warmest summer since record-keeping began in 1895. If we need any reminder that climate change is at work, it should be noted that 9 out of the 10 warmest summers since 1895 have happened within the last 20 years. Not only is it needed for both our climate and environment, we know that clean renewable energy creates local jobs and can provide significant economic stimulus to New Jersey. Therefore, we are very supportive of the plan for 100% clean renewable energy by 2050. In particular, we applaud the recent offshore wind and community solar energy initiatives by Governor Phil Murphy and New Jersey's Board of Public Utilities.

At the same time, it is very important to note that regardless of how it is generated, energy must be connected to the electric distribution system for it to be available for use by consumers. Having a reliable and sustainable infrastructure is vitally important; both to consumers and to the economy of the State of New Jersey.

One can argue that electric power is one of the most important critical infrastructures for New Jersey. Power outages or interruptions have significant public policy implications. While not as "visible" as other environmental concerns such as clean water and clean air, power interruption is and should be a major concern to all. Power interruptions result in significant loss of

productivity and hurt the economy. In addition to being left in the dark, power outages pose safety, security and health risks, especially during the winter with freezing temperatures.

There have been huge public outcries after major storms due to wide spread power outages. This happened after Hurricane Irene in 2011, Super Storm Sandy in 2012 and again after winter storms Quinn and Riley in 2018. Most of the attention is focused on storm preparedness, storm responses and communications. However, the problem that New Jersey consumers face, in a number of territories, is a chronic and systemic neglect of the local distribution system that is exacerbated by storms. We all know anecdotal stories from out-of-state utility workers that came to New Jersey to helped restore power after storms that they can't believe how old and dated our infrastructure is. Over 99% of power outages are from failures of the electric distribution system; often when snow is not falling and the wind is not blowing.

We are very happy to see that ensuring reliability and affordability for all customers is among the 5 main goals of the 2019 Energy Master Plan. We know that potential remedies for reliability include hardening infrastructures, burying power lines, expanding vegetation management and inspection, and updating communications of the health of the circuits. However, these investment decisions are made mostly by the private sector companies, almost all of them are for-profit companies that operate for the benefit of their shareholders, albeit with BPU oversight. Furthermore, any new investments must be balanced against the already high rates that NJ ratepayers are currently paying.

So, what can be done to improve reliable and sustainable infrastructure, in particular the local electrical distribution system? First and foremost, we believe that an important objective is to ensure that the distribution system is in a state of good repair.

When we drive a car, we have gauges and sensors that tell us, among other things, how fast we are going, the temperature of the engine, oil level, tire pressure, the rpm of the engine and even a compass on the rearview mirror that tells you the direction you are headed. In order to ensure that the distribution system is in a state of good repair, we believe that better metrics and

performance standards should be developed to monitor the state of the distribution system and to allow for better oversight and, if needed, enforcement by regulators.

There metrics and performance standards should be on a more open and transparent basis that are available to all interested parties that include not only the BPU and Rate Counsel but also to any other public or consumer advocate groups that may be interested. These metrics should be easily and readily displayed on a public website just like gauges are on a car's dash board.

Reliability Indices

The BPU currently collects data on two reliability indices, specifically: the Customer Average Interruption Duration Index ("CAIDI") and the System Average Interruption Frequency Index ("SAIFI"). These indices are reported to the BPU as part of the Annual System performance Report. There are problems with these indices. The first issue is that these indices are not readily available to the public. More importantly, data for "Major Events" in which more than 10% of the customers have their power interrupted are excluded in the indices. So in a perverse way, if you don't maintain and upkeep your local distribution system and you don't properly trim trees, there is a greater chance that an event would cause more than 10% of the customers to have power interruption. As a direct result, that event will be excluded from the data, and that company's reported reliability indices will look better. In other words, the reliability indices do not reflect what is actually experienced by customers.

Conversely, if a company spends time and money to maintain and harden their systems and, as a direct result of these efforts, managed to reduce the number of customers affected by a particular event to below 10%, the event would be included in the data submitted. Winter storm Riley caused power outages to more than 14% of its customers for one major utility company while only around 4% of its customers for another major utility company. We submit to you that this huge difference cannot simply be explained by the path of the storm. We believe that it would be instructive if the BPU should look at these reliability indices with and without major events.

In addition, these indices should be examined not only on a trend basis but, equally as important, they must be compared to on a relative basis to other utility companies in our region and on a national basis. Related to this issue is the fact that our current minimum reliability level allows for too much degradation in reliability level before red flags are raised.

Other Metrics

In addition to the above reliability indices, there are other metrics or performance standards that should be considered.

(1) We know that utility companies filed a schedule of their worst circuits. An indicator or a schedule that shows the percentage of these previously reported worst circuits that have been reinforced or upgraded would be useful. As an example, it would be meaningful to know that after a circuit has been identified and included as a worst circuit and there was no or minimal upgrade or replacement of that circuit for a period of say 3 years.

(2) It has been reported that the aging infrastructure is a reliability issue. In business, we know that companies that have significant portion of its account receivables beyond 90 or 120 days old have or will have cash flow problems. Similarly, it would be instructive to have an aging schedule that shows the age of wires, transformers, and other equipment. Some sort of exception report or early warning should be sounded if and when we see a schedule that shows equipment that is 50, 60 or 70 years old. As an example, we know that the replacement of lateral fuses with reclosers that could restore service to customers in less than 90 seconds when temporary fault occurs will significantly reduce the frequency and duration of power interruptions. We also know that a recloser will pay for itself in as little as two field trips by utility workers and could save hours of power interruption. However, despite all this, there is at least one major utility company that has lagged behind in replacing fuses with reclosers even though it was provided additional money to improve its reliability issues. A metric that measures investments that are replacement or upgrade as a percentage of the aging distribution assets might also prove to be useful.

(3) We know that proper vegetation management goes a long way to reducing power outages and increasing system reliability. Utility companies are mandated by the BPU to inspect and, if necessary, trim trees at least once every four years. However, if you drive around many communities, you will see large branches directly over local distribution lines. Having a vegetation management program on file is not very useful if a company does not follow protocol or the mandate from the BPU. The development of a vegetation management index that showed the percentage of areas that have been inspected and appropriate tree trimming been performed in the past year or 2 would be helpful to see compliance to vegetation management.

(4) It is fairly common knowledge among financial analysts that cover the energy sector that a number of utility companies follow the practice of pumping up rates and then reducing operating and maintenance expense. Every dollar that is not spent goes to the bottom line as profit and inures to the benefit of shareholders. Therefore, it is important to know that the dollars that have been approved as part of a rate filing case are being spent for the purposes of providing and maintaining reliable service. A review of the history of the base rate filings for one particular New Jersey utility company has shown that after a base rate was approved, its operating and maintenance expense was reduced allowing the utility company to have "over earned" a just and reasonable rate of return and was then ordered by the BPU to reduce its base rates by more than $100 million per year. A metric that measures "normalized" annual operating and maintenance expense as a percentage of distribution assets and benchmarked against peer companies would be very insightful and useful for regulatory purposes.

Summary

Currently, for the most part, reliability issues are reviewed as part of a rate case. We don't believe that this is the best way to ensure reliable and sustainable infrastructure. In the case of one New Jersey utility company, 10 years had elapsed between the settlement of two rate filings. We believe that by having a set of better and transparent metrics it will help with the oversight and enforcement of reliability issues. The above suggested metrics or performance standards are meant to stimulate further thinking to ensure that our electric distribution system is in a state of good repair. We believe this will go a long way towards improving reliability.

This brings me to one last point: staffing. Governor Murphy has very ambitious goals for renewable energy and the Energy Master Plan. Recently, at the Governor's urging, the BPU launched the offshore wind power initiative. We applaud the Governor and the BPU for these efforts. However, it appears that the existing case load and work are already taxing BPU staff. There is no question that a more robust and better staffed BPU and Rate Counsel would allow more effective oversight of New Jersey's utility companies and better implementation of the Energy Master Plan. We urge the Committee to give serious consideration to recommend significantly increasing the staff at both the BPU and Rate Counsel.

Thank you for opportunity to provide comments.

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CHARGE - ***Consumers Helping Affect Regulation of Gas and Electric***

CHARGE is a non-profit, non-partisan consumer advocacy group that works for the public interest in the energy sector. Frustrated by storm responses and legislative bills that were not presented for the benefit of the general public, CHARGE was formed in 2018 to be the voice of more than three million New Jersey electric and gas consumers and small business customers.

For more information, please visit us at: https://www.njcharge.org/