STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

In the Matter of the 2024 New Jersey Energy Master Plan	))	Docket No. QO24020126

COMMENTS OF NRG ENERGY, INC.

NRG Energy, Inc. ("NRG") submits comments in the above-captioned proceeding in response to Staff's Request for Information ("RFI") issued on May 14, 2024, and subsequent Public Hearings held in May and June of 2024. NRG applauds the leadership of the New Jersey Board of Public Utilities ("the Board") on this topic and appreciates the opportunity to comment on such crucial issues.

WHO WE ARE

With its eastern U.S. corporate home in Princeton, New Jersey NRG is a leading integrated energy and home services company in North America.[1] A Fortune 150 company, NRG is at the forefront of changing how people use, buy, and think about energy. In fact, NRG's office on U.S. Route 1 in Princeton is a state-of-the-art, highly sustainable, LEEDS Platinum Certified building. We strive to empower our residential, commercial, and industrial customers with reliable and cost-effective energy solutions. We draw on our deep industry experience to provide products and services that suit our customers' needs with the consistency and innovation expected from the nation's leading integrated energy and home services provider.

[1] NRG Energy Inc. is headquartered in Houston, Texas.

NRG is creating a sustainable energy future by fostering smarter energy choices and providing reliable, cleaner power.

NRG's retail brands encompass one of the largest combined competitive retail energy portfolios in the U.S. with 155 TWhs of electricity and 1,918 MMDth of natural gas sold in 2022 and over seven million customers served. Our roughly 15,000 employees provide a suite of products and tools that support sustainable living, load management, and developing technologies while fostering a culture that values safety, accountability, and collaboration.

NRG has eleven licensed Third Party Suppliers ("TPSs") that are actively serving electricity and natural gas customers throughout New Jersey since 2002[2].

EXECUTIVE SUMMARY

The 2019 Energy Master Plan ("EMP") provided a set of goals to achieve New Jersey's clean energy targets and produced a strategy to look at the complete energy system in the State, including electricity generation, transportation, and usage in commercial buildings. As required by statute, it is time to revisit the goals and progress made since the 2019 EMP and establish a new path forward utilizing all the emerging technologies and lessons learned, while focusing on the customer, ensuring costs are kept at bay and disadvantaged communities are treated fairly. The Board has taken the appropriate first steps by issuing an RFI, convening multiple public hearings, and accepting comments on the topic. As a leading TPS in the state, NRG and other

[2] *Reliant Energy Northeast LLC d/b/a NRG Home/NRG Business* ESL-0093 and GSL-0176; *Green Mountain Energy Company* ESL-0233; *Energy Plus Holdings LLC* ESL-0087*; Energy Plus Natural Gas LLC GSL-0100; XOOM Energy New Jersey, LLC* ESL-0115 and GSL-0112; *Stream Energy New Jersey, LLC* ESL-0109 and GSL-0120; *Direct Energy Services, LLC* ESL-0078 and GSL-0088; *Direct Energy Business, LLC* ESL-0165 and GSL-0145; *Direct Energy Business Marketing, LLC* ESL-0142 and GSL-0128; and *Gateway Energy Services Corporation* ESL-0166 and GSL-0146.

suppliers should continue to be part of the solution as there are several ways in which suppliers can help the State meet its goals. NRG's comments encompass solutions for many of the seven key strategies outlined in the 2019 EMP[3].

AS SMART METERS ARE ROLLED OUT, UTILITIES NEED TO IMPLEMENT OPT-OUT TIME OF USE RATES

According to sources, approximately 2,870,000 electric customers in New Jersey (about 70% of the state's electric customers) have smart meters, reflecting ongoing rollout efforts by utilities.[4] Advanced Metering Infrastructure (AMI) are meters that precisely measure consumption or production at granular intervals and have the capability to relay that data instantaneously between customers, the utility, and substations. AMI is imperative to unlock opportunities where customers can actively participate by switching their usage patterns in response to prices.

Unfortunately, customers cannot always participate in these opportunities because they are charged a flat rate by the utility where customers pay the same rate regardless of when the energy is used or how much of it is used. To take full advantage of this technology that New Jersey energy customers have financed, those customers need exposure to time-varying rates. With time time-of-use rates ("TOU"), customers can respond behaviorally and make choices on when to run major appliances or charge their electric vehicles based on when rates are lower

[3] 1. Reducing Energy Consumption and Emissions from the Transportation Sector; 2. Accelerating Deployment of Renewable Energy and Distributed Energy Resources; 3. Maximizing Energy Efficiency and Conservation, and Reducing Peak Demand; 4. Reducing Energy Consumption and Emissions from the Building Sector; 5. Decarbonizing and Modernizing New Jersey's Energy System; 6. Supporting Community Energy Planning and Action in Underserved Communities; and 7. Expanding the Clean Energy Innovation Economy.
[4] ChatGPT, response to "Smart Meters in NJ for Electric Customers," June 6, 2024, https://chat.openai.com.

(typically off-peak hours). Some of us may recall the old telephone service days when long distance calls were typically made later at night when rates were lower. Studies have shown that customers rarely make behavioral changes unless there is some kind of financial incentive to do so.

While both Atlantic City Electric and PSEG have proposed opt-in time of use programs, the full benefit of the program will not be realized until they are conducted on an opt-out basis. Opt-in programs consistently show low levels of enrollment. On average, approximately 3% of residential customers in areas where TOU rates are available have opted into these plans. [5] Time-of-Use rates should be the default rate structure to better reflect underlying market-price dynamics and influence customer change.

Specifically, implementing opt-out time-of-use rates could help the State meet the 2019 EMP key strategy numbers 1. Reducing Energy Consumption and Emissions from the Transportation Sector; 3. Maximizing Energy Efficiency and Conservation and Reducing Peak Demand; and 4. Reducing Energy Consumption and Emissions from the Building Sector. To take full advantage of time-of-use rates, two other market enhancements: Supplier Consolidated Billing ("SCB") and better access to data must occur. These enhancements are discussed in more detail below.

VIRTUAL POWER PLANTS UTILIZE DEVELOPING TECHNOLOGIES TO SHIFT USAGE TO NON-PEAK HOURS

Virtual Power Plants ("VPPs") are systems that integrate various distributed energy resources ("DERs") to create a single, flexible, and aggregated power generation unit. These DERs

[5] The Brattle Group, "A Survey of Residential Time-Of-Use (TOU) Rates", November 12, 2019, https://www.brattle.com/wp-content/uploads/2021/05/17904_a_survey_of_residential_time-of-use_tou_rates.pdf;

can include renewable energy sources like solar panels, wind turbines, and hydroelectric plants, as well as traditional generators, battery storage systems, and even demand response capabilities. The primary goal of a VPP is to optimize the production and consumption of electricity by leveraging the combined capabilities of these dispersed resources.[6] NRG has numerous customers participating in VPPs outside of New Jersey. Customers are provided smart thermostats and participate in direct load control (resulting in 20-30% reduction in customer demand) or behavioral demand response where customers actively participate (resulting in 10-15% demand reduction). Battery storage has also now been added to our suite of products enabling customers to reduce their loads even further during peak periods.

Enabling VPPs in New Jersey would require some changes in the current market structure. As mentioned above, TOU rates are essential so that customers are getting the appropriate price signals for reducing their load or switching to battery power. SCB should be enabled so that TPSs like NRG can properly bill these products in a way that is easily understood. Granular and instantaneous data access is also paramount to offering VPPs. Both SCB and data access will be more fully explored below.

VPPs touch upon every key strategy in the 2019 EMP offering an enormous potential to make tangible impacts in the State. They can provide increased grid reliability, cost savings, and can increase the amount of renewable energy in the State (thus reducing the overall carbon footprint).

UTILITY DEMAND REDUCTION PROGRAMS SHOULD CONTINUE, BUT PROGRAM FLEXIBILITY SHOULD ALLOW TPS PARTICIPATION AND TPS RUN PROGRAMS

[6] ChatGPT, response to "Virtual Power Plants," June 6, 2024, https://chat.openai.com.

The New Jersey utilities already offer a variety of demand reduction programs including rebates for energy efficiency, demand response programs in which customers can reduce their load during times of peak usage to receive financial incentives, programs that specifically target low-and-moderate income households to provide energy-saving measures at no cost, and building electrification incentives targeted to help consumers switch from gas to electric systems. It is important that the programs not only allow customers who shop with a TPS to participate so that all consumers in NJ can receive the benefits these programs have to offer.

In addition, TPSs should be allowed to run similar programs targeted to our customers. Currently, market constraints such as challenges with access to AMI data and the absence of Supplier Consolidated Billing prevent TPSs from offering fully robust demand response programs. As discussed below, enabling both data access and Supplier Consolidated Billing would help foster innovative programs that more consumers can participate in.

ENABLING RENEWABLE NATURAL GAS

Recent industry trends have focused on electrification of the grid and reduction in natural gas usage. There are, however, lower carbon alternatives to natural gas that should be considered. Renewable Natural Gas ("RNG"), Producer Certified Gas ("PCG"), and hydrogen can contribute to a lower carbon environment while maintaining grid reliability and customer affordability.

While the 2019 EMP envisions a New Jersey powered by carbon free generation by 2050 (now 2035 pursuant to Executive Order 315), the reality is that natural gas, RNG, PCG, and hydrogen will play a long term role in meeting New Jersey's increasing demand to power

increasingly electrified transportation and building sectors and to serve as a baseload and backstop fuel for when renewable energy generation and/or battery storage can't provide 100% reliability for an aging transmission and distribution grid.

Although natural gas costs did increase dramatically in 2022, this was primarily due to Russia's invasion of Ukraine and Europe's demand for liquified natural gas ("LNG") to offset the loss of their primary natural gas supply coming from Russia which was weaponized by the Russians against Europe's democracies for supporting Ukrainian resistance and independence. Prices have settled back to mostly historically low numbers and proves that natural gas can remain an affordable option for many people, especially with close to 75% of all New Jersey homes and businesses are using natural gas for heat or in their operations.

PCG is geologic natural gas that comes from a wellhead that has been certified by an outside organization as having reduced methane leakage from that wellhead (to .02% or lower), drastically reducing methane escaping into the atmosphere. According to some sources, methane leakage from non-certified wellheads can reach upward of 20%, so PCG is a tremendous step in the right direction of putting controls in place and capturing as much natural gas as possible and allowing little to none to escape into our atmosphere.

In the same vein, RNG can contribute to a lower carbon environment by capturing the methane that naturally occurs when a biological material breaks down (sources include landfills, sewage, and food, agricultural or forestry waste). Absent this, methane (which is dozens of times more potent than carbon dioxide), escapes into our atmosphere where it significantly contributes toward global warming. The good news about RNG is that because it is almost identical to the

chemical composition of geologic natural gas, it can be mixed, processed, stored, transported, and used the same way. Thus, RNG can benefit climate-change efforts in two main ways:

1. By displacing geologic natural gas and other fossil fuels like oil. Depending on the source, RNG can be carbon neutral or have a negative carbon score. By using RNG in this way, it allows for the decarbonization of the transportation, industrial and building sectors.
2. By capturing methane from organic waste (such as landfills, manure, and food waste) that would otherwise get released into the atmosphere and contribute to climate change. When it is burned instead of being released directly, methane is converted into water and carbon dioxide, a greenhouse gas with a much lower global warming impact than methane itself. It is important to think of RNG as waste management rather than simply a replacement for geologic natural gas.

NRG supports energy policies that are based on practical and realistic considerations and that recognize that our planet's climate crisis will not be solved by relying on one or two technologies, but rather using an "all of the above" approach that utilizes different technologies in diverse ways to achieve stated goals. Natural gas, whether geologic, RNG, or PCG, must be recognized by New Jersey as having high value when it comes to grid reliability and customer affordability and should thus be recognized in the next iteration of the Energy Master Plan.

EXPANDING GOVERNMENT ENERGY AGGREGATION PROGRAMS TO INCLUDE CLIMATE ACTION TOOLS

NRG currently participates in the State's government energy aggregation programs as a TPS bidding on and serving load. As more communities establish their own clean energy and

decarbonization targets, it is important that government energy aggregation programs be allowed to include other products and services. Programs should be able to include smart thermostats, VPPs, community solar, battery storage, EV charging plans, and other innovative offerings that would not only help the communities meet their climate goals but would help the State in achieving the EMP targets. If the local government agrees, and the TPS can provide more of a climate action marketplace - it is a win/win situation for all involved.

Government energy aggregation programs are a wonderful way to reach a larger number of customers. Why not offer these customers products and services that are better for the environment and work toward the EMP goals.

SUPPLIER CONSOLIDATED BILLING MUST BE ENABLED TO ACCOMMODATE INNOVATIVE PRODUCTS

Supplier Consolidated Billing ("SCB") is an arrangement in the utility market where the energy supplier, rather than the local utility company, issues a single consolidated bill to the customer. The bill includes both the utility charges for delivery service and the TPSs charges for supply services. The goal of SCB is to enhance the competitive energy market by giving suppliers more control over customer interactions.

TPSs being able to directly bill their customers for the new products and services enabled by the deployment of AMI meters and the interval usage data they collect is critical to ensuring a return on the customers' investment in smart meters. When TPSs can offer a single, consolidated bill to customers, containing all electric charges, they are not confined by the

limitations of the utility bill. As a result, TPSs can be more innovative and show customers how their energy usage is affecting their overall bill.

SCB works hand in hand with TOU rates, VPPs, demand reduction programs, smarter municipal aggregation programs, and even RNG, PCG, or hydrogen gas and enables TPS' to provide one innovative bill for a whole suite of products and technologies aimed to reduce customers' usage and help the State meet its goals. Furthermore, SCB is currently allowed by NJ Statute and can be implemented without a change in the law.

Suppliers are currently providing billing in other places (Texas, Illinois, and Alberta) and most recently, Maryland approved an SCB program. Adequate rules and guidelines would be identified to make the program successful. TPSs would purchase the utilities' receivables and incur collection risk similar to how the utilities do it today. Customers would have more of a direct relationship with their TPS, thus fostering more trustworthy and reliable participants in the market. TPSs would gain the flexibility to offer the most innovative products and services to customers.

DATA ACCESS IS KEY

TPSs are committed to delivering innovative products and services that empower New Jersey customers to take control of their energy consumption. The ability to do so, however, hinges on timely and efficient access to customer near real-time interval usage data which can only be achieved with the adoption of standardized data access requirements. NRG as a member of the Competitive Suppler Group has offered several comments over the last three years in the

AMI Data proceeding on the value of this date to customers in making decisions to advance their energy efficiency efforts and to make decisions on choosing renewal energy options.

NRG urges the BPU to finish its efforts to propose a rule in the AMI Data proceeding which finally will allow customers to utilize their AMI data to modify their usage patterns to more efficient and verdant options.

ALL STAKEHOLDERS, INCLUDING THIRD PARTY SUPPLIERS, NEED TO BE PART OF THE DISCUSSION

NRG and other TPS' need to be included in the discussions and be part of the solution. NRG is already offering incentives and products to encourage the state's decarbonization efforts and would like to be viewed as a strategic partner and ally in continuing these efforts in the State alongside the Board and the utilities. Continuing to develop these efforts in a meaningful manner and putting the needs of customers at the forefront while not impacting the reliability of the system will be a challenge for all of us to overcome together.

CONCLUSION

NRG appreciates the opportunity to comment on such prominent issues and commends Staff on its efforts so far including the multiple Public Hearing meetings held over the last month. We look forward to continuing the discussions and will be a resource to Staff, as necessary.

Respectfully submitted,

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