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PROJECT NO. 57236

PROJECT TO DEVELOP THE TEXAS BACKUP POWER PACKAGE PROGRAM	§ § §	BEFORE THE PUBLIC UTILITY COMMISSION OF TEXAS
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**NRG ENERGY, INC.’S COMMENTS REGARDING STAFF QUESTIONS AND
NOVEMBER 13, 2024 VIRTUAL WORKSHOP**

NRG Energy, Inc. (NRG) appreciates the opportunity to offer comments on the questions raised by Staff and discussed by participants at the virtual workshop on November 13, 2024 regarding the Texas Backup Power Package (TBPP) program.

I. INTRODUCTION AND GENERAL COMMENTS

NRG appreciates the work of the TBPP Advisory Committee, Patrick Engineering, and Commission staff to date in helping to scope the TBPP program and identify the primary issues that will need to be addressed to make the program successful. If given the opportunity to apply for pre-qualification as a TBPP vendor, NRG may apply to participate in the TBPP program as an operator of TBPPs for critical facilities in Texas. Today, NRG operates and maintains emergency backup power facilities (fueled by diesel) on behalf of several critical facilities in Texas and hopes the TBPP program will provide an opportunity to replace or upgrade aging units, convert to cleaner natural gas, and enhance the resiliency of the backup power systems at some of those existing sites (e.g., through adding solar and storage), as well as to expand the deployment of backup power systems to secure critical load across Texas.

We have identified, below, some overarching issues that ideally should be addressed in the upcoming rulemaking project and have also provided comments, further below, in response to the groups of questions raised by Staff on the three topics discussed at the workshop (i.e., input by critical facility operators, technical specifications, and ownership and financing issues).

A. Availability of TBPP Program Funds for Existing Sites

First, it would be helpful if the rule could clarify whether program funds will be available to critical facilities with existing emergency backup generators—e.g., to replace or upgrade aging units, convert to gas if not already gas-fired, and add the requisite solar and storage components

in the statute. Chapter 34 of the Public Utility Regulatory Act (PURA)¹ does not appear to bar use of the Texas Energy Fund (TEF) funds for this purpose, so long as the technical specifications of the program are satisfied (e.g., the backup package includes a mix of natural gas or propane with solar panels and battery storage,² can operate for 48 continuous hours, can immediately island from the grid, and serves not more than 2.5 megawatts (MW) of load).³ Unlike other TEF programs (e.g., the ERCOT loan and completion bonus grant programs), the subchapter regarding the TBPP makes no distinction between “new” or “existing” facilities, thus indicating that funds could be available for both types of sites. With that said, clarification on this point in the rulemaking would be helpful.

In NRG’s view, the TBPP funds should be made available for sites with existing backup power facilities, to best further the intent of the statute. The stated intent of Subchapter B of PURA (“Texas Power Promise: Backup Power Packages”) is to “facilitate and provide funding for the design, procurement, installation, and use of Texas backup power packages to ensure the reliability or adequacy of an electric power grid in this state **for facilities on which communities rely for health, safety, and well-being**.”⁴ Many such facilities (e.g., water treatment plants, hospitals) already maintain emergency backup power generators on site (either based on a legal requirement⁵ or as a matter of best practice). Thus, to fulfill the above-stated statutory intent, TBPP funds should be available to such facilities, even if they already have backup generators on site, if use of the funds would enable them to replace or upgrade existing units, convert existing units to natural gas (if not already fueled by gas), and enhance the resiliency of their existing backup power systems by adding solar panels and a battery. Otherwise, the TBPP program may fail to provide funds to the most critical types of facilities in the state, which would seem to frustrate the statutory intent.

¹ Tex. Util. Code §§ 11.001-66.016 (PURA).

² These comments focus on the TBPP option that includes gas/propane plus solar and storage and do not opine on the alternative electric school bus option for TBPPs.

³ PURA § 34.0204.

⁴ PURA § 34.0202 (emphasis added).

⁵ *E.g.*, Tex. Health & Safety Code § 251.017 (requirements for end-stage renal disease facilities); Tex. Water Code § 13.1394 (requirements for certain water providers); 25 Tex. Admin. Code (TAC) § 133.45 (making National Fire Protection Association standards applicable to hospitals, which include emergency backup power requirements – see NFPA 110).

B. Pre-Qualification of Vendors

Second, it would be helpful if the rule could clarify the process and timeline for pre-qualifying vendors to participate in the TBPP. While NRG does not manufacture the components of the TBPP packages, NRG may wish to participate in the program as an operator and maintainer of TBPPs on behalf of critical facilities. PURA requires that the Commission “maintain and publish a list of approved vendors eligible to assist with the sale, installation, operation, and ongoing maintenance of Texas backup power packages,”⁶ but does not detail what the process will be for pre-qualifying vendors for this purpose. Thus, the Commission ideally should establish a process and timeline for pre-qualifying vendors in the rulemaking for the TBPP program.

C. Identity of Applicant

Third, and relatedly, it would be helpful for the rule to clarify who can be the applicant for TBPP financing. As addressed in more detail below under the third topic (related to ownership and financing), NRG anticipates that many critical facilities may face challenges (potentially related to tax, lack of technical expertise, potential liability, and the like) that would make it difficult for them to own, operate, and maintain their TBPP. If a third party will own and operate/maintain the facility, it could make sense for that party to be the applicant, on behalf of the critical facility, for the TBPP grant or loan, since that party likely would also be the one to procure and oversee the installation of the TBPP at the site.

II. COMMENTS IN RESPONSE TO STAFF QUESTIONS

Topic 1: Critical Facility Operator Input

What are the key challenges you face in maintaining and operating backup power systems, and how can the TBPP program better address those challenges?

As noted above, NRG currently operates and maintains emergency backup power generators (diesel-fueled) for several critical facilities in the state, such as water treatment plants. If, as suggested above, the TBPP program funding is available to those types of facilities (i.e., those that already have emergency backup capacity on site), then the TBPP program could be helpful to assist with replacing or upgrading existing units or converting existing diesel-fueled generators at some of those sites to natural gas and adding the requisite solar and storage facilities

⁶ PURA § 34.0205(d).

to enhance resiliency. While NRG is not encountering specific challenges with respect to operating and maintaining its existing backup power systems, the TBPP program could present challenges if the rules are not framed in a way that allows for appropriate flexibility with respect to both technical specifications and ownership of backup power systems (as addressed further below), and thus, NRG agrees with other commenters in this project⁷ that the rule should allow for maximum flexibility within the statutory framework.

Topic 2: Technology Components and Specifications⁸

As noted, NRG agrees with other comments that flexibility in technical requirements is key. At some sites, there may be limited physical space or suitability (e.g., roof angle relative to the sunlight) for solar panels and/or storage facilities. While PURA requires that TBPPs source their power from a combination of natural gas or propane with solar and storage (or an electric school bus), it does not specify what the relative percentage of each technology must be, stating simply that a TBPP is eligible to receive funding if it:

provides power sourced from: (A) a combination of natural gas or propane with photovoltaic panels and battery storage [hereafter, “Option A”]; or (B) battery storage on an electric school bus [hereafter, “Option B”].⁹

Consistent with the broad language used in the statute, a critical facility site should be able to qualify for TBPP funds even if it has limited space/suitability for the solar+storage part of Option A for the TBPP, as long as it can accommodate some amount of solar+storage.

Further, the TBPP must meet additional statutory requirements that further counsel in favor of allowing flexibility with respect to the proportions of gas/propane to solar and storage under

⁷ E.g., Project No. 57236, GRIT’s Comments on the Development of the Texas Backup Power Program at 2-4 (Nov. 27, 2024) (recommending flexibility for technical specifications and ownership arrangements); Comments of Generac Power Systems, Inc. on Texas Backup Power Package Program Virtual Workshop Agenda and Responses to Commission Questions at 5 (Nov. 22, 2024) (recommending flexibility for technical specifications); Comments of Microgrid Resources Coalition (Nov. 11, 2024) (recommending flexibility for both technical specifications and ownership models); Comments of Texas Advanced Energy Business Alliance 2-5 (Nov. 18, 2024) (same).

⁸ NRG responds to identify general concerns and comments on this topic, focusing on the first three of the following Staff questions—(1) What are the feasibility considerations for the specifications of the range of technologies supported by the program?; (2) What specific challenges or considerations should we keep in mind when finalizing the specifications for the backup power technologies (e.g., traditional generators, solar + storage, electric school buses)?; (3) Are there any technical specifications or interconnection standards that need to be addressed to ensure that the prescribed technologies are effective for different types of critical facilities?; and (4) What is the volume of units of the various size ranges, and can the supply chain support it? [NRG does not address question 4].

⁹ PURA § 34.0204(5).

Option A and specifically to allow the gas/propane component to constitute a significantly greater percentage of the total capacity than the solar+storage component.

First, the statute requires that a TBPP be capable of operating for at least 48 continuous hours without refueling or connecting to a separate fuel source.¹⁰ As a general rule, gas/propane units are better suited to providing continuous service during a long duration emergency than either solar (e.g., if the emergency coincides with cloudy conditions and/or continues through the night) or storage (which has a limited duration by design and presumably would have to be recharged by the solar panels during the day). Thus, to ensure that the backup power system is designed to run continuously for 48 hours, the TBPP will need to include sufficient capacity of natural gas/propane to serve the critical facility load through at least two nights and during any cloudy conditions, which often coincide with grid emergencies that occur during extreme cold weather. The solar and storage components will still be available to provide additional resiliency in the event of fuel-related issues during the emergency, but should not be the primary source of power for the critical facility.

Second, PURA requires that the TBPP be engineered to minimize costs.¹¹ While NRG appreciates that the statute is intended to increase resiliency beyond that provided by traditional generation by requiring the inclusion of solar and battery capacity, the inclusion of those additional technologies in the TBPP will undoubtedly increase the costs, as compared to a backup power system that consists solely of traditional generators. Allowing for the TBPPs to be tailored to the site needs (e.g., by not requiring a specified percentage of solar and storage) will help to minimize those additional costs.

Finally, NRG raises one additional issue regarding technical specifications, related to the statutory requirement to design the TBPP to immediately island from the grid in times of emergency—i.e., to use “interconnection technology and controls that enable immediate islanding from the power grid and stand-alone operation for the host facility.”¹² As NRG reads the statute, so long as the TBPP is designed to immediately island from the grid during an emergency (and

¹⁰ *Id.* § 34.0204(3).

¹¹ *Id.* § 34.0204(1).

¹² *Id.* § 34.0204(2).

satisfies other requirements in the statute, such as not being used for the sale of energy or ancillary services), the TBPP can also operate in parallel with the transmission grid at times outside of an emergency (e.g., for testing purposes and for load reduction during peak periods). With that said, given the statutory reference to “immediate islanding,” it would be helpful if the Commission could clarify this point in the rulemaking.

Topic 3: Ownership Models and Financing¹³

In NRG’s experience, many critical loads (especially political subdivisions like cities) do not want to own a generator (including “lease to own”)¹⁴ or take on the liability or responsibility for operating and maintaining something outside their core business. Thus, NRG would support the Commission rule allowing for (or not prohibiting) alternative ownership models, so long as such models comport with PURA,¹⁵ including a model by which a third party owns the TBPP and provides resilience as a service, for example, by operating, testing, and maintaining the TBPP on behalf of the critical facility. Under Chapter 34 of PURA, a TBPP cannot be used to generate electricity for sale in the wholesale market as energy or ancillary services¹⁶ and is primarily intended to be used as a backup power source in times when the critical facility cannot access electricity from the grid due to an extended grid outage.¹⁷ Thus, by design, TBPPs could not be

¹³ NRG responds to identify general concerns and comments on this topic, focusing on the first three of Staff’s four questions on this topic—(1) What are the considerations for alternate or flexible ownership models?; (2) What would you take into consideration when structuring a lease-to-own or resilience-as-a-service model? If you focus on the ability of the critical facility to implement or adopt that alternate ownership model, would that change the way you consider structuring the model?; (3) Do you anticipate costs exceeding the \$500/kW cap for grants? If so, what strategies might keep costs below the cap on grants while still ensuring quality and reliability?; and (4) What factors should be considered to support long-term maintenance and operational readiness for backup power systems? [NRG does not respond to Question 4].

¹⁴ With that said, it is not uncommon for a contract arrangement for emergency backup power to include a lease and an option to buy at the conclusion of the lease for a nominal amount.

¹⁵ NRG understands the concerns raised by the Texas Electric Cooperatives, Inc. regarding the exclusive right of an electric cooperative or municipally owned utility that has not opted into competition to furnish electric service to any consuming facility in its franchised territory (see PURA § 39.105(b)). NRG’s primary interest is in the competitive areas of the state, and thus, NRG’s comments above focus on those areas of the state that are open to retail competition. *See also infra* note 18.

¹⁶ *See, e.g.*, PURA § 34.0204(6) (allowing funding for a TBPP only if it “is not used by the owner or host facility for the sale of energy or ancillary services”); *id.* § 34.0205(c) (prohibiting funding for a “commercial energy system”).

¹⁷ *See id.* § 34.0202 (defining the purpose of the TBPP as ensuring “reliability or adequacy of an electric power grid in this state for facilities on which communities rely for health, safety, and well-being”); *id.* § 34.0201 (defining “Texas backup power package” as “a stand-alone, behind-the-meter, multiday backup power source that can be used for islanding”); *id.* § 34.0204 (requiring that a TBPP be capable of “immediate islanding from the power grid

used to sell wholesale power to the grid and would primarily be used to provide electricity to the critical facility during grid emergencies. In NRG's view, a third party could own the TBPP on behalf of the critical load facility in these circumstances, consistent with PURA,¹⁸ and perform O&M and testing services for a critical load that, for liability, tax, or whatever other reason, cannot or does not want to own the TBPP itself.¹⁹ NRG suggests that the Commission address this issue in the upcoming rulemaking to remove any doubt regarding the ability for third party ownership of TBPPs (at least in areas of the state open to retail electric competition).

Similarly, it would be helpful if the Commission could clarify, in the upcoming rulemaking, the ability to use TBPPs, in areas of the state open to retail competition, for peak load shaving and similar purposes. While Chapter 34 of PURA prohibits the use of TBPPs for the sale of energy or ancillary services²⁰ and requires that the TBPP be available to provide continuous power, for 48 hours, during a grid emergency,²¹ the statute does not appear to prohibit use of the TBPP outside of a grid emergency, for example to manage the critical facility's consumption during peak periods, so long as the TBPP operator can demonstrate that the TBPP will be available, as required, during a grid outage and will be able to immediately island from the grid in that instance.²² One of the requirements of Chapter 34 is that a TBPP be "engineered to minimize operation costs," and as pointed out by the Staff's questions, there is a \$500 per kilowatt cap on grants to TBPPs under the

and stand-alone operation for the host facility" and be "capable of operating for at least 48 continuous hours without refueling or connecting to a separate power source").

¹⁸ PURA has limitations on who can own and operate facilities in the state, for compensation, to transmit and distribute electricity (i.e., a transmission and distribution utility (TDU)) and who can make sales of electricity at wholesale and retail in the areas of the state open to competition (i.e., a power generation company (PGC) and retail electric provider (REP), respectively). *See, e.g.*, PURA §§ 39.051, 39.105(a), 31.002(6)(C), (H), 31.002(10), 31.002(17), 37.051. In NRG's view, ownership and operation of the TBPP can be done in a way that does not violate any of these restrictions. For example, as noted above, (1) the TBPP would not be used to make wholesale sales to the grid, so the TBPP owner/operator could register as a self-generator (rather than a PGC); (2) with respect to the provision of electricity behind the meter (e.g., during grid emergencies or for load management purposes), that can be structured in a manner to avoid any retail sale of electricity; (3) any sales of electricity to the critical facility from the grid would, of course, have to be made by a REP; and (4) the arrangement could be structured to avoid ownership by the TBPP operator of wires facilities or substations used to supply power to the critical facility to avoid any violation of the prohibitions against unlawfully acting as an electric utility.

¹⁹ PURA permits self-service, so this would also be an option for a critical facility that is able to and willing to own the TBPP. PURA § 31.002(6)(J)(i).

²⁰ PURA § 34.0204(6).

²¹ *Id.* § 34.0204(3).

²² *Id.* § 34.0204(2).

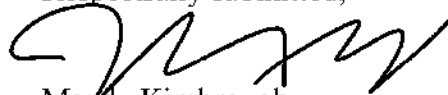
statute. While NRG agrees with the consensus of other commenters at the virtual workshop that installation of TBPPs will almost certainly exceed \$500 per kilowatt, one way to help meet the requirement to minimize costs would be to allow for the TBPP to provide some economic benefit to the critical facility (through an appropriate arrangement with its retail electric provider) through things like load management.

Finally, it is notable that, even if the gas generator component of a TBPP is deployed only in an emergency, the solar component of the TBPP would presumably provide power to the critical facility any time the sun is shining, which, in turn, would reduce the critical facility's load at the ERCOT settlement meter. Thus, the rules should, at a minimum, clarify that the TBPP can provide power to the critical facility outside of a grid emergency in these circumstances.

III. CONCLUSION

NRG appreciates the Commission's leadership on the development and implementation of the Texas backup power package program and looks forward to the opportunity to continue working with the Commission and Staff to develop the rules needed to ensure its success.

Respectfully submitted,



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