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PROJECT NO. 57236

PROJECT TO DEVELOP	§	**BEFORE THE**
THE TEXAS BACKUP POWER	§	**PUBLIC UTILITY COMMISSION**
PACKAGE PROGRAM	§	**OF TEXAS**

GRID RESILIENCE IN TEXAS' COMMENTS IN RESPONSE TO COMMISSION STAFF'S QUESTIONS ON THE TEXAS BACKUP POWER PACKAGE PROGRAM RESEARCH ENTITY FINAL REPORT

Grid Resilience in Texas ("GRIT") appreciates the opportunity to provide comments in response to the questions included in the Public Utility Commission ("Commission") Staff's January 23, 2025, memo, as well as Alison Silverstein's memo, regarding Patrick Engineering, Inc.'s Final Report on the Texas Backup Power Package Program ("TBPP"). GRIT is comprised of a group of leading flexible generation and microgrid companies, including Cummins Inc., Enchanted Rock, Generac Power Systems, Mainspring Energy, PowerSecure Inc., and Sunnova Energy. These companies represent projects that encompass a spectrum of sizes, from small-scale behind-the-meter ("BTM") assets to large generation facilities utilizing various technologies and fuel types. GRIT is improving energy reliability, resiliency, and affordability for Texans by leveraging innovative solutions and stacking value streams for services to the grid and to customers.

COMMISSION QUESTIONS

1. **The Final Report outlines specifications for TBPPs of various sizes to serve critical facilities.**

   A. ***How, if at all, could these specifications affect the ability of critical facilities to apply for, install, or utilize TBPPs?***

The prescriptive TBPP sizing specifications limit the ability of critical facilities to deploy economically optimized solutions tailored to their needs. Facilities may encounter physical constraints, such as space limitations or unsuitable rooftop conditions, and will need to adjust the technology ratios based on project economics and performance. The report's approach to backup power package design is overly prescriptive and will ultimately hinder participation in the

program. The applicability of a specific package size to a facility should be determined based on the customer's needs, not pre-judged. The Commission should allow for flexibility in choosing ratios between the assets or multiple smaller packages, ensuring the best balance of reliability, redundancy, and performance.

Additionally, the report goes beyond its technical scope to interpret the BPP statute overly conservatively. The statute does not restrict TBPPs from operating in modes other than in island-mode. This restriction will make TBPPs too expensive for widespread adoption, as it prohibits on site load management. In order to create the best opportunity for success with this program, the end user must have a pathway to manage on site load besides islanded operations. According to Patrick Engineering's own report, project costs significantly exceed the $500/kW cap, making the program financially unviable unless additional revenue streams are allowed to offset TBPP costs.

B. ***How, if at all, should the outlined specifications for TBPP packages be modified to ensure that the packages can serve most critical facilities in Texas?***

The TBPP program must prioritize flexible standards that permit a range of solutions. Allowing facilities to right-size packages based on site-specific needs and constraints will enable them to deploy resilient and cost-effective backup power solutions. The technical specifications should be used as a guide or an illustrative framework for how vendors can meet the resiliency requirements of the BPP statute and customer needs. The Commission should use the report to set a reasonable range on what will qualify technology-wise.

A key strategy for achieving cost reductions for customers who take advantage of the grant will be use of systems for services beyond backup power operations. These on-site opportunities could include non-exporting demand response, peak shaving, and load displacement.

Under PURA Section 34.0204(6), the Commission may provide grants or loans for the design, procurement, installation, and use of Texas Backup Power Packages, provided that the packages are not used by the owner or host facility for the "sale of energy or ancillary services." The Commission should clarify that the prohibition on Backup Power Packages being used for

the "sale of energy or ancillary services" is specifically related to Energy & Ancillary Services as defined in the ERCOT protocols. Services that TBPPs can provide outside the ERCOT markets are crucial for the economics of the program to be workable for developers and customers alike.

2. **The Final Report provides a list of potential vendors for the TBPP program.**

   A. ***What factors, if any, could affect the ability of such vendors to assist with the sale, installation, operation, and ongoing maintenance of TBPPs?***

To ensure TBPPs are successfully deployed and maintained, pre-approval of qualified vendors is essential. Without vendor accountability, there is a risk of companies taking upfront grant funding and abandoning projects, leaving critical facilities without reliable backup power..

   B. ***How should the TBPP program be designed to maximize the ability of vendors to assist with the sale, installation, operation, and ongoing maintenance of TBPPs?***

The TBPP program should be structured to ensure flexibility in microgrid configurations rather than mandating a one-size-fits-all approach. Vendors should have the ability to propose site-specific solutions that optimize cost, resiliency, and operational efficiency with contracts for O&M service. The Commission should establish clear pre-qualification criteria to ensure vendors have the technical and financial ability to maintain systems over the long term.

3. **In Sections 2-4 and 2-5, the Final Report outlines design requirements and assumptions; technology specifications; operating sequences; and installation requirements.**

   A. ***How, if at all, could the specifications described in these sections affect implementation of the TBPP program?***

GRIT supports the comment made by Alison Silverstein Consulting in response to the Patrick Engineering Report on switchover time. The assumption that "immediate" islanding requires zero-second switchover is unnecessary and significantly increases TBPP costs by inflating battery storage requirements. Most critical facilities already function with 5-10 second transfer delays, making this specification largely impractical.

B. ***How, if at all, should the specifications be modified to ensure effective implementation of the TBPP program?***

Adjusting the switchover time requirement to allow a brief delay would reduce costs, improve feasibility, and enhance program accessibility without compromising reliability.

4. **How should the TBPP be designed to mitigate or remedy any other factors that could negatively affect program implementation or participation, while ensuring compliance with statutory requirements? Please limit this response to factors not previously mentioned in responses to questions one through three above.**

The Commission is responsible for finalizing the list of "Critical Facility" types. Patrick Engineering's Initial Report detailed six categories. When it comes to grocery stores, the Commission should clarify in its final rulemakings that cold storage facilities that serve as a waypoint in the food supply chain for groceries are also considered "groceries". Cold storage facilities preserve the quality and safety of perishable goods, which are a basic human need. For instance, the Texas Homeland Security Strategic Plan underscores the importance of the food system. If the Commission were only to approve only the final destination of grocery locations as Critical Facilities, it would severely limit the ability of Texas residents to obtain sufficient food during an emergency, particularly emergencies that last 48 hours or more. Many of these facilities may be larger than 2.5 MW, justifying at least partial coverage (up to 2.5 MW) via TBPP incentive dollars to support a larger backup power package deployment.

The current approach overprescribes technical specifications and sizing requirements to create packages that only Patrick Engineering deems viable--this will unnecessarily increase costs and severely limit participation. Rather than engineering solutions, the Commission should oversee funding allocation, set performance-based criteria, and ensure accountability. A market-driven approach – where facilities and vendors tailor solutions to real-world needs – will better achieve the statute's goal of widespread resiliency deployment.

ALISON SILVERSTEIN QUESTIONS

1. **Will the proposed technical specifications proposed yield TBPPs that work effectively to meet Texas critical facilities' resilience goals? Are there any elements in the proposed technical specifications that should be corrected or improved?**

The current TBPP technical specifications are restrictive and do not demonstrate expertise in understanding critical facility needs and typical site constraints. As mentioned in comments from Alison Silverstein Consulting, the requirement for zero-second switchover is excessive – most current critical facility customers do not deploy Uninterruptible Power Supply (UPS) systems, especially given the high cost of such systems. The island-mode-only restriction further reduces the program's effectiveness. Given the TBPPs as specified and use-case restricted, the $500/kW grant cap is insufficient, making TBPPs financially inaccessible to critical facilities that already have trouble financing lower cost, traditional backup power solutions.

2. **Does the recommendation that the TBPP packages be sized for 10kW, 25kW, 100kW, 500kW and 1,000kW (Patrick Engineering final report, p. 15) work for what we know of the Texas critical facility population? Is there any reason to modify this set of package sizes? If so, what alternate package sizes do you recommend and why?**

Restricting TBPPs to predefined sizes will severely limit participation. Critical facility loads vary widely, and forcing facilities into rigid categories ignores real-world site constraints. GRIT does not recommend creating prescribed package sizes, rather, the Commission should pre-approve qualified vendors and allow facilities to right-size their systems based on their actual needs. The sizing strategy does not account for resiliency that is created via redundancy, i.e. possibly using two or three 500kW systems to serve an 800kW load versus serving the load with a 1,000kW system.

3. **Do the cost estimates in the final report (final report pp. 29-31) appear valid? Why or why not? If your organization were planning to offer TBPP packages in volume based on these specifications, what would you estimate as the integrated TBPP package and installation costs for the various TBPP package sizes?**

Costs for TBPPs, particularly given the report's prescribed BESS and PV sizing requirements, will likely exceed cost estimates. In fact, the report itself acknowledges that "the TBPP program grant cap would be insufficient to substantially fund the TBPPs."

4. **Are there any ways to modify the proposed TBPP technical specifications (for instance, with respect to the role of and sizing balance between package energy components) to reduce the cost or improve the effectiveness of the TBPPs without compromising the TBPP critical facility goals and statutory requirements? How would these changes affect the cost and performance of the resulting backup power packages?**

To improve TBPP cost-effectiveness, facilities should be allowed to optimize the balance between generation and storage rather than adhering to predefined sizing ratios. Additionally, removing unnecessary design constraints would reduce costs without compromising resilience, relying on proven designs and deployment models used by reputable vendors in the microgrid/backup power market today. Finally, the Commission must allow for on site load management to make TBPPs financially competitive.

CONCLUSION

GRIT appreciates the opportunity to submit these responses to Commission Staff's questions for comment on the Texas Backup Power Package Program Final Report. As the Commission continues to move forward with Project No. 57236 and related efforts, GRIT is committed to supporting the effort to ensure improved grid reliability, resiliency, and stability.

Respectfully submitted,

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EXECUTIVE SUMMARY OF GRID RESILIENCE IN TEXAS' COMMENTS IN RESPONSE TO COMMISSION STAFF'S QUESTIONS ON THE TEXAS BACKUP POWER PACKAGE PROGRAM RESEARCH ENTITY FINAL REPORT

- The TBPP program must prioritize flexible standards that permit a range of solutions. Allowing facilities to right-size packages based on site-specific needs and constraints will enable them to deploy resilient and cost-effective backup power solutions.
- The Commission should clarify that the prohibition on Backup Power Packages being used for the "sale of energy or ancillary services" is specifically related to Energy & Ancillary Services as defined in the ERCOT protocols. Services that TBPPs can provide outside the ERCOT markets are crucial for the economics of the program to be workable for developers and customers alike.
- The Commission should establish clear pre-qualification criteria to ensure vendors have the technical and financial ability to maintain systems over the long term.
- Adjusting the switchover time requirement to allow a brief delay would reduce costs, improve feasibility, and enhance program accessibility without compromising reliability.
- The Commission should clarify in its final rulemakings that cold storage facilities that serve as a waypoint in the food supply chain for groceries are also considered Critical Facilities.
- Rather than engineering solutions, the Commission should oversee funding allocation, set performance-based criteria, and ensure accountability.