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**PROJECT NO. 52373**

**REVIEW OF WHOLESALE  
ELECTRIC MARKET DESIGN**

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**PUBLIC UTILITY COMMISSION  
OF TEXAS**

**COMMENTS OF  
TEXAS CONSUMER ASSOCIATION  
& ALISON SILVERSTEIN CONSULTING**

COMES NOW the Texas Consumer Association, a non-profit advocate representing small business and individual Texas customers on pocketbook issues, and Alison Silverstein, an independent energy consultant, to offer these joint-filed Comments responding to the Commission's December 6, 2021 Memorandum in Project No. 52373, the Review of Wholesale Electric Market Design.

We appreciate the significant progress that the Commission has made to improving ERCOT's power system reliability for the coming winter – notably new power plant winterization requirements, improved gas facility recognition as critical for electric service, modification of the Operating Reserve Demand Curve to broaden revenues beyond scarcity events, expansion of Emergency Reserve Service, and initiatives to accelerate transmission expansion and dispatchable resource interconnection. These actions, taken at "lightning speed," should substantively improve power system reliability even without natural gas system winterization requirements.

The Commission's December 6 proposed 52373 blueprint is flawed

However, the PUCT's memorandum and proposed blueprint is troubling because it proposes that the Commission make additional policy commitments without: 1) a firm basis in technical analysis of the problems and options, 2) credible and transparent analysis of the impacts of any of the current or proposed solutions, or 3) a substantive stakeholder and public

input process to assure solid understanding of the options and implications of these problems.

To remedy these defects in the present proposal, and to fulfill its mission “to protect customers, foster competition and promote high quality infrastructure,” we ask that the Commission take formal notice of and consider the Updated ERCOT Reliability and Market Phasing Recommendations submitted on December 10, 2021. (See Attachment A) “Lightning speed” was appropriate for approving changes like power plant winterization and ORDC reform, but it is inappropriate and even dangerous for the next phase of market and reliability reform policy decisions. As outlined in Attachment A, the Commission should adopt a more measured pace for the next round of decisions, taking time to develop better detail on each proposal, undertake transparent and sophisticated analysis of both reliability problems and proposed solutions, and incorporating extensive, robust stakeholder and public engagement and input processes.

#### Reliability and market redesign could be very costly

We know that power system reliability has great value -- due to inadequate planning and preparation, the extensive blackouts during Winter Storm Uri cost the lives of over 200 Texans, created misery for millions of households, and cost Texas’ economy at least \$200 billion – and we fully support the Commission’s goal of assuring better reliability and resilience in ERCOT. But to date the Commission and industry advocates have offered little or no detailed, transparent analysis on how the various reliability and market proposals under consideration will affect grid reliability, electricity costs and bills, or retail and wholesale market competitiveness.

The people of Texas, as citizens in the world’s ninth largest economy, deserve and require that the Commission make these critical decisions with a full and comprehensive understanding of whether and how the various proposals could individually and in combination

improve reliability, and at what cost and cost-effectiveness. Without adequate analysis, the Commission risks adopting measures that deliver limited reliability improvement but impose a significant cost burden upon ERCOT electric customers and Texas' prized economy.

In Attachment B, we attempt to develop ballpark estimates of the costs of the various reliability and market design proposals now under consideration, which on top of the Uri securitization costs could add at least \$8 billion dollars and 14.3% per year onto annual ERCOT energy costs and the average Texas residential electric bill. This effort suffers from the lack of detailed cost calculations and information provided by or to the Commission.

What reliability improvements do we need and will we get?

In addition to the lack of transparent cost impact analysis, there is a parallel absence of reliability analysis. Thus it is impossible to determine how much reliability improvement could be realized from these costly proposals. While we agree with many Texans that we are willing to pay more for better grid reliability and resilience, we cannot support policy decisions that add charges of this magnitude without evidence that they will fix the problems that caused the Winter Storm Uri blackouts and other challenges in ERCOT's future.

First, the Commission and Texans do not have a comprehensive, sophisticated analysis of ERCOT's current and coming reliability and resilience challenges, so the Commission is rushing to adopt reliability solutions without any determination of whether and how the proposed solutions are relevant to those challenges.

Second, as noted above, many of the Commission's Phase I actions – power plant winterization, Emergency Response Service expansion, lowering the per MWh High Price Cap, modifying the Operating Demand Reserve Curve, and accelerating some transmission construction and resource interconnection – should materially address some of the problems that

caused Winter Storm Uri failures, even without widespread natural gas system winterization. It is essential that the Commission and public understand the magnitude and nature of these improvements in order to identify the incremental reliability impacts of the new round of reliability and market proposals. Failure to conduct such analyses could create costly unintended consequences that harm rather than enhance resource availability and reliability.

The Commission must undertake aggressive demand-side measures to improve reliability at reasonable cost

To date the Commission's actions have focused primarily on how to bolster supply-side resources and use industrial-scale demand response to ease emergency conditions. Given the high costs and uncertain reliability impacts of the supply-side measures under consideration at present, it is time for the Commission to undertake an aggressive expansion of demand-side measures to enhance reliability and resilience. Since ERCOT's reliability challenges are driven particularly by very hot and very cold weather, the Commission should aggressively expand peak-affecting energy efficiency and demand response measures for residential and small commercial customers.<sup>1</sup> The Commission should also facilitate distributed energy resource interconnection, aggregation and ancillary service market participation, facilitate better demand response participation in ancillary service and reliability protecting measures, and examine and improve distribution & transmission utility feeder sizing and outage rotation tools. As we have asserted before and as validated by credible technical analysis, well-crafted energy efficiency programs can materially reduce reliability and operational risks and costs during peak, net peak and extreme conditions, while reducing costs, enhancing ERCOT's resource portfolio effectiveness, lowering energy equity burdens, and enhancing Texas' economic well-being.

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<sup>1</sup> This priority is shared by a number of Texas municipalities, which will be recommending these actions in Project 52373 comments, as noted in a December 7, 2021 story on KXAN TV, "A life and death matter': Texas counties, cities sound off on electric market changes."

## Conclusion

We appreciate the Commission's determination and efforts to identify and implement solutions to the power system reliability challenges facing ERCOT. However, now that a meaningful foundation of reliability-improving measures have been adopted, and no others can be implemented in time to affect winter 2022 performance, it is time for a more deliberate pace. We ask that the Commission take formal notice of the Updated ERCOT Reliability and Market Phasing Recommendations proposal attached and consider it explicitly as an alternative to the plan laid out in the December 6, 2021 Memorandum. This would enable development of better reliability and market measures with better analysis and focus on their reliability impacts, costs, and wholesale and retail market competitiveness, with more robust stakeholder and public input. These should yield better decisions and outcomes for all of Texas and her citizens.

Respectfully submitted,



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Texas Consumer Association



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**Attachment A**  
**Updated ERCOT Reliability and Market Phasing Recommendations**

# Updated ERCOT Reliability and Market Phasing Recommendations

Public Utility Commission of Texas

Project No. 52373

December 10, 2021

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## Context and rationale for these recommendations

The PUCT's December 6, 2021 Memorandum and proposed blueprint contains both market and reliability proposals and a process to finalize those proposals in 2022. The Joint Parties believe these issues should be handled with more analysis, deliberation and stakeholder process without compromising ERCOT reliability.

- Most of the market and reliability proposals covered in the PUCT's proposed blueprint are still poorly defined and are not yet suitable for PUCT approval; these details are too important, inter-related and market-affecting to leave to ERCOT staff and stakeholder groups to resolve later.
- The PUCT's December 6 blueprint offers reliability solutions without a clear recognition of the specific reliability challenges ERCOT needs to solve.
- The PUCT's December 6 blueprint omits some important potential solutions.
- None of the current and proposed market and reliability changes have been subjected to detailed, transparent analysis to determine their impacts on reliability, customer costs, or retail and wholesale markets.
- Since many of the mechanisms proposed cannot be implemented until ERCOT completes its Energy Management System update (2024) and co-optimization software implementation, there is no need to rush decisions now in light of the reliability improvements already under way.
- The PUCT's process to date has not allowed the level of thoughtful, detailed stakeholder and public input and Commission deliberation that is appropriate for issues of such importance and cost affecting the world's 9<sup>th</sup> largest economy.

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## PHASE 1 – Nearly complete

### Take immediate action and identify options

#### 1) Finalize and adopt foundational Phase 1 measures that immediately improve grid reliability

- Power plant winterization
- Modify Operating Reserve Demand Curve to shift revenue away from crises and deliver revenue to resources that respond to system needs
- Drop High Systemwide Offer Cap from \$9,000 to \$5,000/MWh
- Expand Emergency Reserve Service and implement before Emergency Action conditions

#### 2) Finalize and adopt measures that enable new supplies and expansion

- Establish transmission expansion plans
- Improve generation & storage queue processing and transmission

#### 3) Identify additional options

- **Operational reliability measures**
  - Broaden parameters and requirements and increase amounts/goals for several current ancillary services (ERS, ECRS, FFR, non-spin, reg up, reg down)
  - Power Firming Service (technology-neutral covering fuel storage, battery-firmed)
- **Resource adequacy measures**
  - Backstop Reliability Service (aka Strategic Reliability Reserve) proposal
  - Load Serving Entity Obligation (LSEO) capacity proposal
  - Dispatchable Energy Credits and Portfolio Standard (DEC) proposal

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## PHASE 2 – Winter through Summer 2022

### Study impacts and detail problems & solutions

1) What reliability problems do we need to solve? Use sophisticated analytical tools & all-hours data on multiple ERCOT worst case situations & operational problems & varied asset performance through extensive Monte Carlo analysis

2) Determine impacts (reliability, resource availability, cost, retail & wholesale market competitiveness) of Phase 1 foundational grid reliability measures

3) Develop and study potential impacts of proposed new market solutions and services relative to Phase 1 baseline

- **Ancillary Service (AS) measures under way** (can't implement many of these before ERCOT Energy Management System upgrade and co-optimization)
  - Fast Frequency Response Service (FFRS)
  - Loads in Non-spinning Reserve (non-spin)
  - ERCOT Contingency Reserve Service (ECRS)
  - Voltage Support compensation (VS)
- **Develop details for new proposals (definitions, requirements, how much, ...) and estimate impacts relative to Phase 1 baseline**
  - LSEO capacity mechanism (LSEO)
  - Dispatchable Energy Credit & Portfolio Standard (DEC)
  - Backstop Reliability Service
  - Firm Fuel product

4) Enable additional demand-side solutions

- Expand energy efficiency (EE) delivery and impact on power system reliability and costs; order new EE potential study that includes DR for residential and small commercial customers
- Remove barriers and limits to distribution interconnection, market/AS participation and aggregation rules for distributed energy resources
- Open rulemaking on demand response for ancillary services, including both small commercial and residential and large commercial and industrial options
- Examine and improve distribution & transmission utility feeder sizing and outage rotation tools

5) Enable additional supply-side solutions

- Fix black-start failures (contract requirements and procurement)
- Create new ancillary services & clean up exclusionary product requirements
- Improve ERCOT load and supply forecasting

6) Conduct robust, extensive, non-rushed stakeholder and public input processes for all of the above

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## PHASE 3 – Fall 2022

### Make coordinated reliability and market decisions

Make coordinated policy decisions based on extensive, transparent analysis, comprehensive view of options and extensive stakeholder and public input.

### Summary -- ERCOT Reliability and Market Phasing Recommendations

<p><b>PHASE 1 – Nearly complete</b>  <b>Take immediate action and identify options</b></p> <p>1) Finalize and adopt foundational measures that have immediate benefit for grid reliability</p> <ul style="list-style-type: none"> <li>• Power plant winterization</li> <li>• Modify Operating Reserve Demand Curve to shift revenue away from crises and deliver revenue to resources that respond to system needs</li> <li>• Drop High Systemwide Offer Cap from \$9,000 to \$5,000/MWh</li> <li>• Expand Emergency Reserve Service and implement before Emergency Action conditions</li> </ul> <p>2) Finalize and adopt measures that enable new supplies and expansion</p> <ul style="list-style-type: none"> <li>• Establish transmission expansion plans</li> <li>• Improve generation &amp; storage queue processing and transmission</li> </ul> <p>3) Identify additional options</p> <ul style="list-style-type: none"> <li>• <b>Operational reliability measures</b> <ul style="list-style-type: none"> <li>• Broaden parameters and requirements and increase amounts/goals for several current ancillary services (ERS, ECRS, FFR, non-spin, reg up, reg down)</li> <li>• Power Firming Service (technology-neutral covering fuel storage, battery-firmed)</li> </ul> </li> <li>• <b>Resource adequacy measures</b> <ul style="list-style-type: none"> <li>• Backstop Reliability Service (aka Strategic Reliability Reserve) proposal</li> <li>• Load Serving Entity Obligation (LSEO) capacity proposal</li> <li>• Dispatchable Energy Credits and Portfolio Standard (DEC) proposal</li> </ul> </li> </ul>	<p><b>PHASE 2 – Winter through Summer 2022</b>  <b>Study impacts and detail problems &amp; solutions</b></p> <p>1) What reliability problems do we need to solve? Use sophisticated analytical tools &amp; all-hours data on multiple ERCOT worst case situations &amp; operational problems &amp; varied asset performance through extensive Monte Carlo analysis</p> <p>2) Determine impacts of Phase 1 foundational grid reliability measures</p> <p>3) Develop and study potential impacts (reliability, resource availability, cost, retail &amp; wholesale market competitiveness) of proposed new market solutions and services relative to Phase 1 baseline</p> <ul style="list-style-type: none"> <li>• <b>Ancillary Service (AS) measures under way</b> (Can't implement many of these before ERCOT Energy Management System upgrade and co-optimization) <ul style="list-style-type: none"> <li>• Fast Frequency Response Service (FFRS)</li> <li>• Loads in Non-spinning Reserve (non-spin)</li> <li>• Voltage Support Compensation</li> <li>• ERCOT Contingency Reserve Service (ECRS)</li> </ul> </li> <li>• <b>Develop details for new proposals (definitions, requirements, how much, ...) and estimate impacts relative to Phase 1 baseline</b> <ul style="list-style-type: none"> <li>• LSEO capacity mechanism (LSEO)</li> <li>• Dispatchable Energy Credit &amp; Portfolio Standard (DEC)</li> <li>• Backstop Reliability Service</li> <li>• Firm Fuel product</li> </ul> </li> </ul> <p>4) Enable additional demand-side solutions</p> <ul style="list-style-type: none"> <li>• Expand energy efficiency (EE) delivery and impact on power system reliability and costs; order new EE potential study</li> <li>• Remove barriers and limits to distribution interconnection, market/AS participation and aggregation rules for distributed energy resources</li> <li>• Open rulemaking on demand response for ancillary services</li> <li>• Distribution &amp; transmission utility feeder sizing and outage rotation tools</li> </ul> <p>5) Enable additional supply-side solutions</p> <ul style="list-style-type: none"> <li>• Fix black-start failures</li> <li>• Create new ancillary services &amp; clean up exclusionary product requirements</li> <li>• Improve ERCOT load and supply forecasting</li> </ul> <p>6) Conduct robust, extensive, un rushed stakeholder and public input process</p>	<p><b>PHASE 3 – Fall 2022</b>  <b>Make coordinated reliability and market decisions</b></p> <p>Make coordinated policy decisions based on sound analysis, comprehensive view of options and adequate stakeholder and public input</p>
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## Attachment B

### ATTEMPT TO ESTIMATE RELIABILITY COST IMPACTS ON ERCOT CUSTOMERS

based on 2020 EIA data and zero detailed analysis from the Public Utility Commission

**Starting point -- approximate total ERCOT customer bills/year      \$32,135 million<sup>2</sup>**

#### **Possible annual costs of proposed new market design changes being considered at PUCT<sup>3</sup>**

Modifications to Operating Reserve Demand Curve	\$ 100 mil
LSEO capacity mechanism (incremental cost)	\$ 1,000 mil
Strategic Reliability Service (aka Backup Reliability Service)	\$ 300 mil
Increased ancillary services costs	\$ 300 mil
Power plant winterization	\$ 430 mil
(Winterization costs are excluded from the total below because it is a one-time cost, even though the generators will likely raise their per kWh charges to recover some portion of this cost)	

Possible PUCT reliability improvements total      \$ 1,700 mil  
*Proposed reliability measures could add 5.3% or more onto current electric bills before the additional Legislature-approved Uri charges below*

#### **Additional approximate bill increases from Uri legislation**

HB 4492 -- Electric securitization of ancillary service charges	\$ 2,100 mil
HB 4492 -- Electric short pays (coops & municipal utilities)	\$ 800 mil
SB 1520 -- natural gas securitization costs	\$ 3,400 mil

Possible Uri legislation total      \$ 6,300 mil  
*Electric measures = 9.0% increase on electric bills, with additional 10.6% cost increase (relative to current electric bills) imposed on natural gas customers*

**Average ERCOT electric price in 2020 = 11.71 cents/kWh for residential customers,  
8.36 cents/kWh total across all customer classes**

***Average electric bills to residential customers could rise by 14.3%, from 11.71 cents/kWh in 2020 to 13.38 cents/kWh in 2022*** from the above measures (apart from natural gas fuel cost increases). These possible bill increases could apply for many years into the future.

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<sup>2</sup> EIA 2020 Texas profile electric revenues = \$35,706 million (Table 8) times 90%, to reflect that ERCOT serves 90% of ERCOT load (per ERCOT Fact Sheet November 2021)

<sup>3</sup> Sam Newell, Brattle, presentation and comments on November 9, 2021 Open Meeting. The only unambiguous publicly available statement from Brattle is that total costs of the four annual reliability costs listed could reach \$1.4 billion per year, a 7% increase on \$20 billion of ERCOT annual energy costs. We have been unable to source or replicate any of the Brattle cost impact estimates.

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& ALISON SILVERSTEIN CONSULTING**

**EXECUTIVE SUMMARY**

The Texas Consumer Association, a non-profit advocate representing small business and individual Texas customers on pocketbook issues, and Alison Silverstein, an independent energy consultant, offer these joint-filed Comments responding to the Commission's December 6, 2021 Memorandum in Project No. 52373, the Review of Wholesale Electric Market Design.

We ask that the Commission take formal notice of and consider the Updated ERCOT Reliability and Market Phasing Recommendations included as Attachment A. This proposal offers a timeline and path for the Commission to fulfill its mission "to protect customers, foster competition and promote high quality infrastructure," by taking the time to make the next set of market and reliability decisions with a solid understanding of the options and implications of these problems. These should reflect deep technical analysis of the problems and options, credible and transparent analysis of the reliability, cost and market impacts of any and all of the current or proposed solutions, and a robust stakeholder input and public engagement process.

As noted in the Updated Phasing Recommendations attached, the Commission's next round of issues should include aggressive expansion of energy efficiency and demand response measures for residential and small commercial customers and facilitation of distributed energy resource interconnection, aggregation and market participation opportunities.

The greatest weakness of the Commission's reliability-enhancing decisions and forward plan is that it is not founded upon any transparent, substantive analyses of the market and reliability proposals adopted and proposed to date. We have attempted to estimate these costs using data from the PUCT's Project 52373 record, but cannot find enough clear detail to support credible estimates. It is possible that **the proposals indicated for Phase 2 decision, on top of the Uri securitization costs, could add at least \$8 billion dollars and 14.3% per year onto annual ERCOT energy costs and the average Texas residential electric bill.** The people of Texas, as citizens in the world's ninth largest economy, deserve and require that the Commission make these critical decisions with a full and comprehensive understanding of whether and how the various proposals could individually and in combination improve reliability, and at what cost and cost-effectiveness. We are willing to pay more for better reliability, but we must ensure that the measures adopted deliver true reliability benefits without compromising the diversity and innovation of the ERCOT market.