



Value of Lost Load (VOLL) Study Update

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Agenda

- Overview
- VOLL Survey Work Plan
- Literature Review
- Interim VOLL
- Next Steps
- Questions

Overview

- **Purpose**

Provide current status of ERCOT's VOLL study

- **Key Takeaways**

- December 7: Proposed VOLL survey work plan filed with PUC in Project 55837
- December 14: PUC approved Option 3 for survey distribution to customers.
- CRs should include customer email addresses in January and February 2024 CBCI files. Market Notice sent 12/14 and more planned.
- December 21: Literature review and interim VOLL filed
- January 3: Initial VOLL survey instruments filed; further refinement anticipated
- VOLL survey rollout pending PUC feedback; to begin no earlier than February

VOLL Survey Work Plan

- 12/07: Brattle and PlanBeyond's proposed VOLL Survey Work Plan [filed](#) in PUC Project 55837. Proposal includes:
 - Use of Lawrence Berkeley National Labs' (LBNL) ICE 2.0 surveys for VOLL
 - Survey distribution per Option 3: via Customer Billing Contact Information (CBCI) in competitive areas and partner with Non-Opt In Entities (NOIEs) to distribute in their service areas
 - Survey deployment to customers beginning no earlier than February 2024
- 12/14 Open Meeting: PUC agreed with Option 3, encouraged Competitive Retailers' (CR) inclusion of customer email addresses in January and February CBCI
 - [Market Notice issued](#) regarding CBCI request; further Market Notices planned
- 01/03: ERCOT [filed](#) initial VOLL survey instruments
- 01/18 Open Meeting: Additional PUC feedback anticipated

Key Takeaway: CRs are requested to include customer email addresses in CBCI submissions made in January and February 2024.

Literature Review

- 12/21: Brattle's VOLL literature review [filed](#) in PUC Project 55837
- 11 VOLL-related studies from North America, United Kingdom, and Germany
- Brattle identified six key takeaways:
 1. Survey is most comprehensive means to measure customer willingness to pay (WTP) for electric reliability;
 2. Residential customers' VOLL typically lower than for commercial/industrial;
 3. Socioeconomic status / ability to pay plays key role in WTP for reliability;
 4. VOLL is similar within particular customer groups, especially commercial/industrial (e.g., service sector typically has low VOLL, manufacturing and mining have high VOLL);
 5. Particularly for commercial/industrial, indirect costs and cost-reduction measures are difficult to capture but affect VOLL; and
 6. VOLL is highly sensitive to the estimation method used and each method introduces different types of biases to account for.

Interim VOLL

- Brattle applied econometrics-based approach and two-part regression analysis from LBNL's 2015 report to publicly-available ERCOT-specific outage and customer data to estimate interim VOLL:

Cost per Unserved Megawatt Hour (MWh)	30 Minute Outage	1 Hour Outage	8 Hour Outage
Residential	\$9,283	\$5,122	\$1,817
Small C&I	\$167,315	\$102,490	\$81,172
Medium / Large C&I	\$130,797	\$78,824	\$53,954
Region-wide Option 1	\$99,052	\$60,093	\$44,321
Region-wide Option 2a (cap using all studies)		\$24,693	
Region-wide Option 2b (cap using all US studies)		\$26,245	
Region-wide Option 2c (cap using all US that test a 1-hour duration outage)		\$52,259	

Key Takeaway: PUC may choose to use interim VOLL until survey is completed, e.g., to inform cost of unserved energy in reliability standard studies.

Next Steps

- **January & February 2024:** CRs to include customer email addresses with CBCI submissions
- **January 11:** ERCOT to file update to VOLL Survey Work Plan
- **January 18 Open Meeting:** PUC feedback anticipated on proposed VOLL survey work plan, literature review, and interim VOLL
- **February 2024:** Earliest that VOLL survey distribution to customers begins
- **Summer 2024:** VOLL survey data analysis completed and study results filed with PUC

Questions?

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