GOVERNMENT OF PUERTO RICO
PUBLIC SERVICE REGULATORY BOARD
PUERTO RICO ENERGY BUREAU

IN RE: THE UNBUNDLING OF THE ASSETS OF THE PUERTO RICO ELECTRIC POWER AUTHORITY	**CASE NO.:** NEPR-AP-2018-0004 **SUBJECT:** March 15 Technical Conference; Presentation

MOTION TO SUBMIT PRESENTATION TO BE PROJECTED DURING THE MARCH 15, 2021 TECHNICAL CONFERENCE

TO THE HONORABLE PUERTO RICO ENERGY BUREAU:

1. On February 5, 2021, the Puerto Rico Energy Bureau of the Public Service Regulatory Board (the "Energy Bureau") issued a *Resolution and Order*[1] setting the procedural calendar for the case of caption. The procedural calendar establishes that the first Technical Conference will be held on March 15, 2021 (the "March 15 Technical Conference").

2. On March 10, 2021, the Energy Bureau issued a *Resolution an Order*[2] in which it stated that the March 15 Technical Conference will be held remotely and also, directing the Puerto Rico Electric Power Authority (the "Authority") to file a copy of the presentation to be used during the March 15 Technical Conference today, on or before 12:00pm.

3. In compliance with the Order, the Authority hereby submits its presentation for the March 15 Technical Conference. Exhibit A.

WHEREFORE, the Authority respectfully requests the Energy Bureau to note the Authority's compliance with the Order.

RESPECTFULLY SUBMITTED.

In San Juan, Puerto Rico, this 12th day of March 2021.

[1] *Resolution and Order* entered on February 5, 2021 (the " Feb 5 Order").
[2] *Resolution and Order* entered on March 10, 2021 (the "Order").

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CERTIFICATE OF SERVICE

It is hereby certified that, on this same date, I have filed the above motion with the Office of the Clerk of the Energy Bureau using its Electronic Filing System at https://radicacion.energia.pr.gov/login, and a courtesy copy of the filling was sent via e-mail to hrivera@oipc.pr.gov, ramonluisnieves@rlnlegal.com; manualgabrielfernandez@gmail.com; ccf@tcm.law.

In San Juan, Puerto Rico, this 12th day of March 2021.

/s Joannely Marrero Cruz
Joannely Marrero Cruz

Exhibit A

Guidehouse

Unbundled Rates for Wheeling

Technical Conference

PUERTO RICO ENERGY BUREAU

Puerto Rico Electric Power Authority

March 15, 2021

Agenda

1. **Overview**
2. **Schedule**
3. **Preliminary Findings**
   a. Data Collection & Review
   b. Marginal Cost of Service Study

Guidehouse

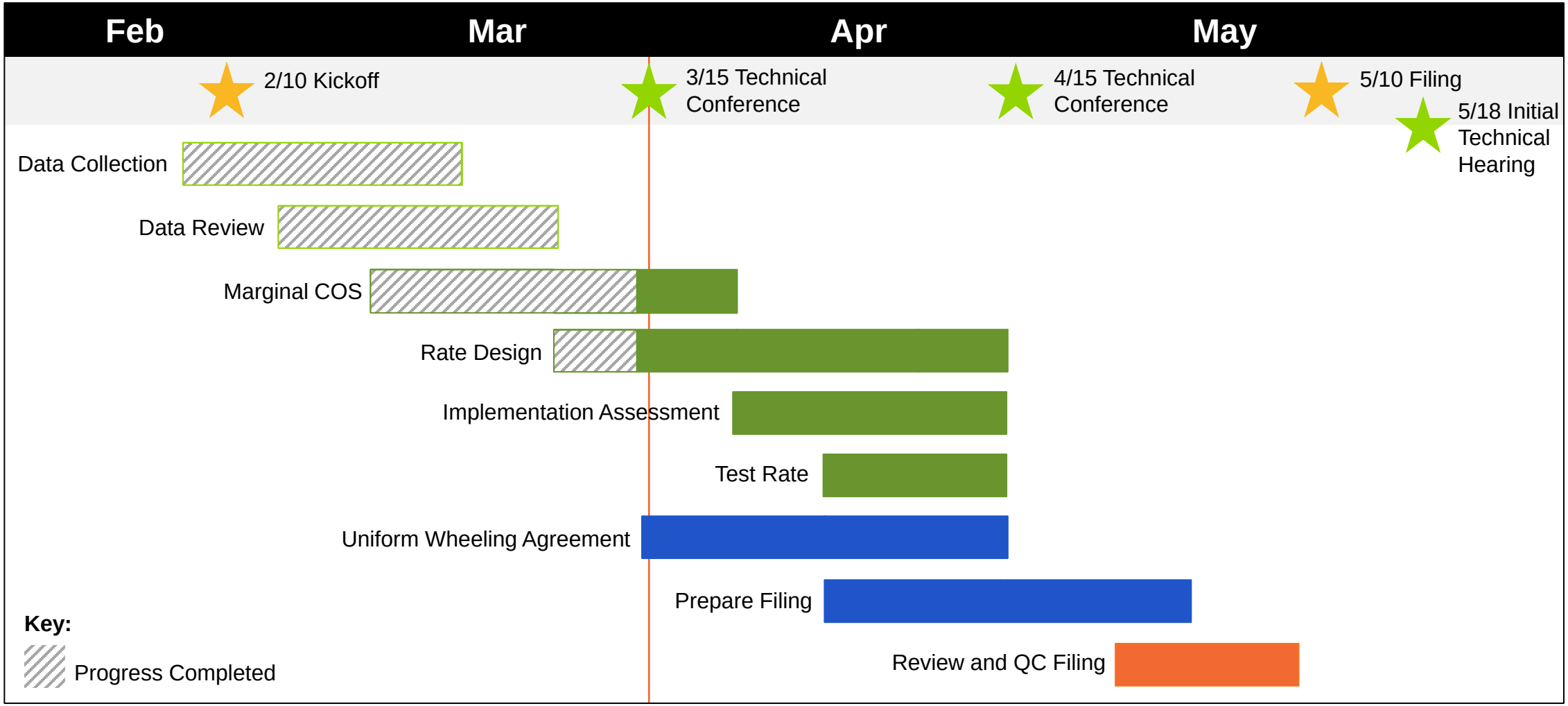
Overview

- Gather all relevant cost, planning and load forecast data from PREPA ✓
- Review data for quality and design proxies where data are insufficient or poor in quality ✓
- **Conduct marginal cost of service study**
- **Design wheeling rate**

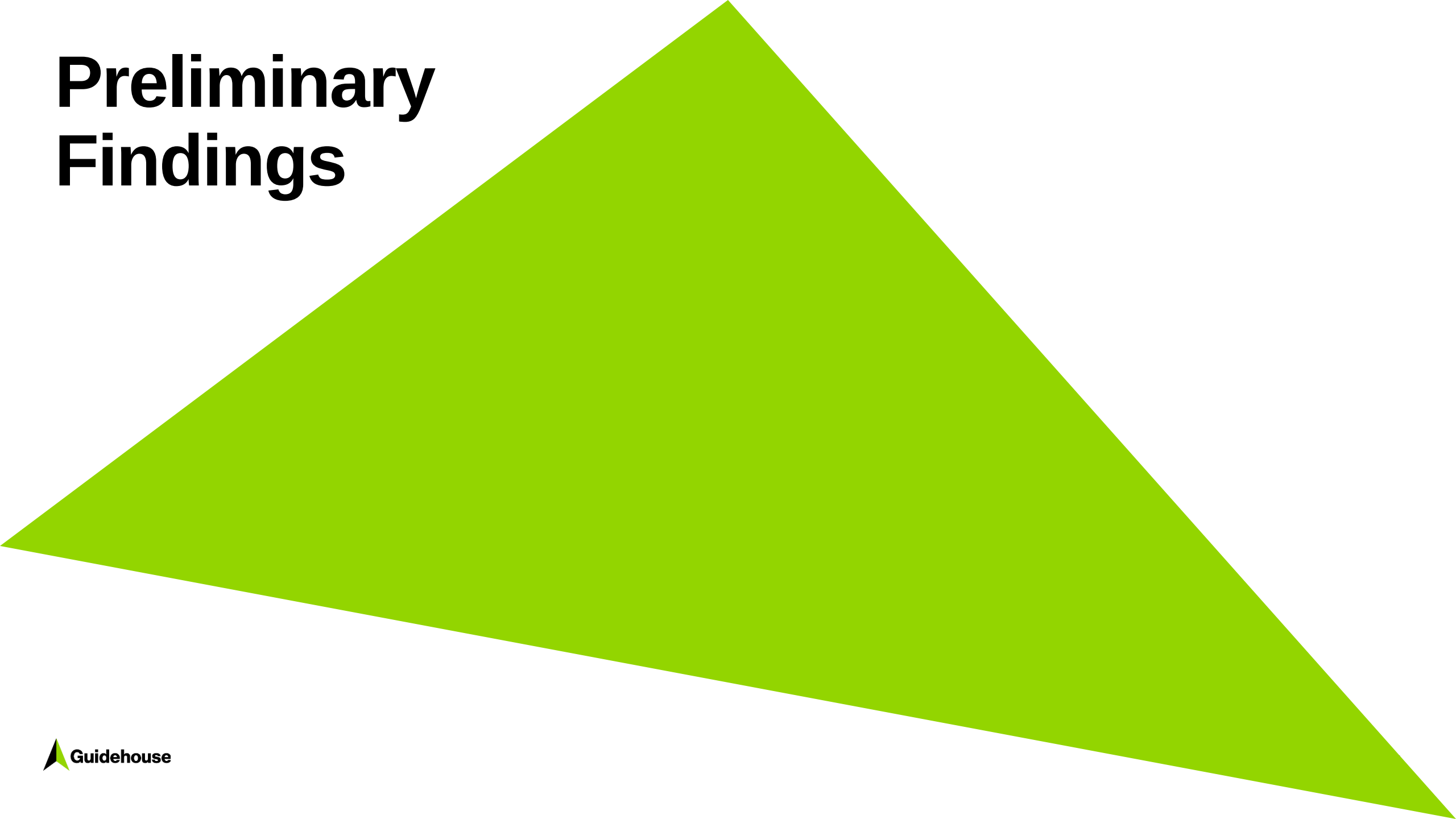
CURRENT STEPS

- Conduct an implementation capabilities assessment
- Test wheeling rate against different ESPC demands
- Develop a uniform wheeling services agreement and vet with PREPA's legal teams
- Prepare regulatory filing, including professional testimony and supporting workpapers
- Review and QC final workpapers and testimony

Schedule



Preliminary Findings



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Data Collection & Review

Data Request Topic Areas:

- Historical and forecasted loads
- Previous cost of service studies
- Detailed cost and planning data
- Related regulatory filings
- Tariffs and rate case

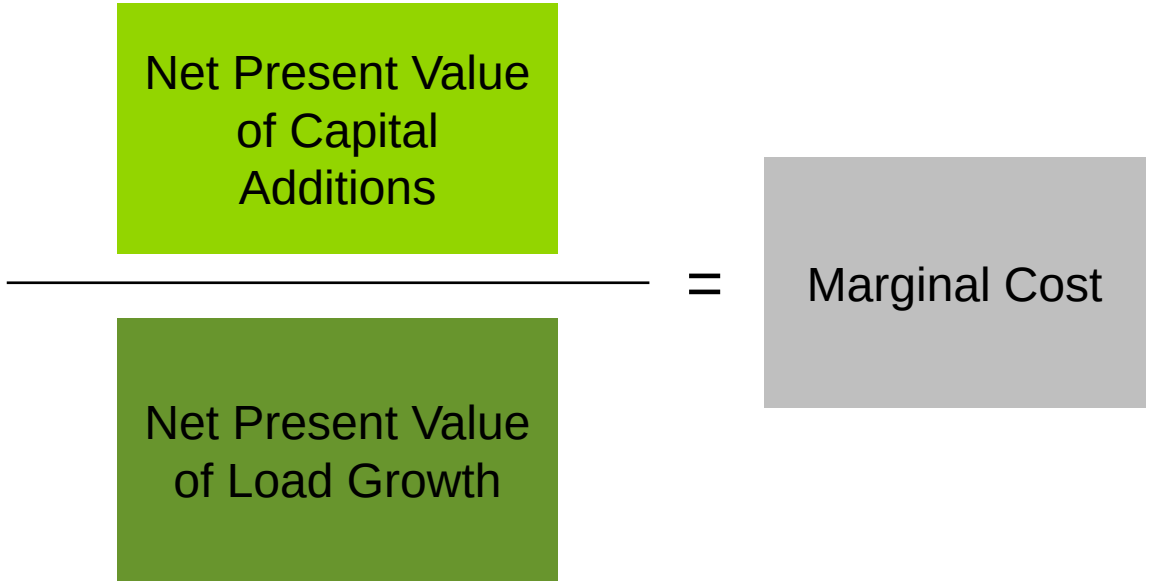
More than 150 files received

- PREPA has delivered 100% of the Guidehouse data request
- Guidehouse reviewed PREPA's load forecasts
- Guidehouse reviewed PREPA's capital plan for projects associated with load growth
- Guidehouse incorporated forecasted capital investments and load into its marginal cost of service model
- Data cleaning will continue to occur throughout the modeling process
- One data concern is quality of data for an embedded cost study, and therefore we continue to assess data and data proxies to be able to complete this study

Cost of Service Study

The marginal transmission and distribution capacity cost model has been built and the study is underway.

- Guidehouse is using the Discounted Total Investment Method (DTIM) to calculate PREPA's marginal capacity costs.
- This forward-looking methodology uses forecasted peak demand growth and corresponding investments to calculate an average cost for investments needed to serve additional loads.
- This methodology is used to create a mathematical relationship between capital investments for load growth and the corresponding forecasted load.

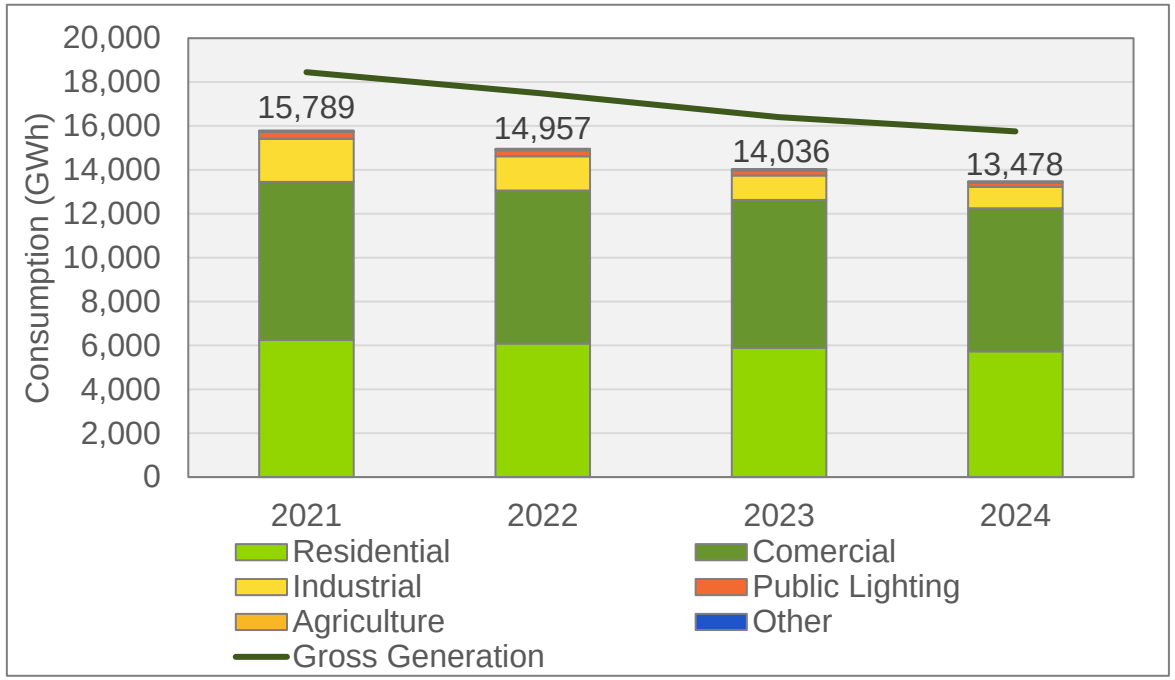


Cost of Service Study

Initial values for marginal transmission and distribution (T&D) capacity cost have been produced.

- For both transmission and distribution, a key input is expected load growth. After reviewing available data, it is clear that PREPA's load is forecasted to decline at the system level and across all customer classes.
- Further, PREPA's planned capital T&D investments are primarily classified for reliability and resiliency rather than load growth.
- We used this data in our marginal cost model to confirm preliminary results of **zero marginal capacity costs** over the next five years.

	2021	2022	2023	2024
Peak Demand (MW)	2,744	2,661	2,591	2,538
Total Load (GWh)	18,252	17,716	17,178	16,775

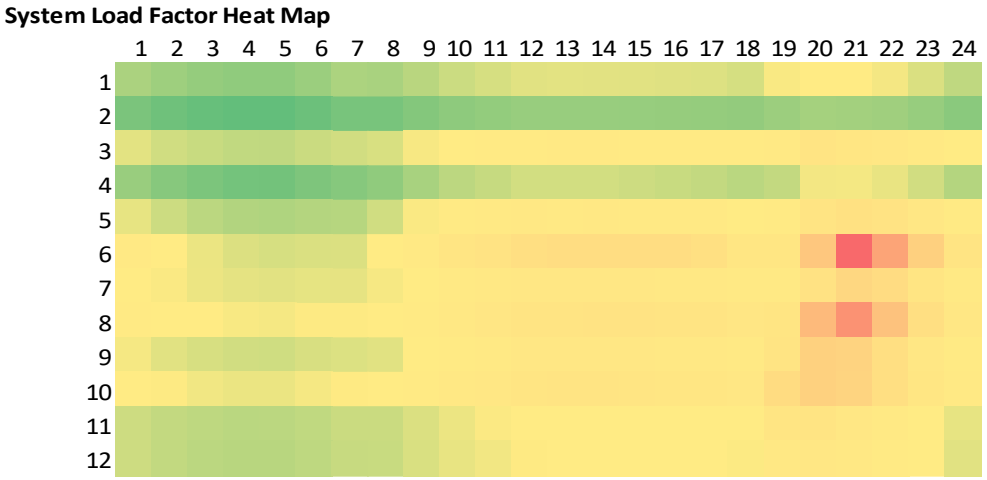


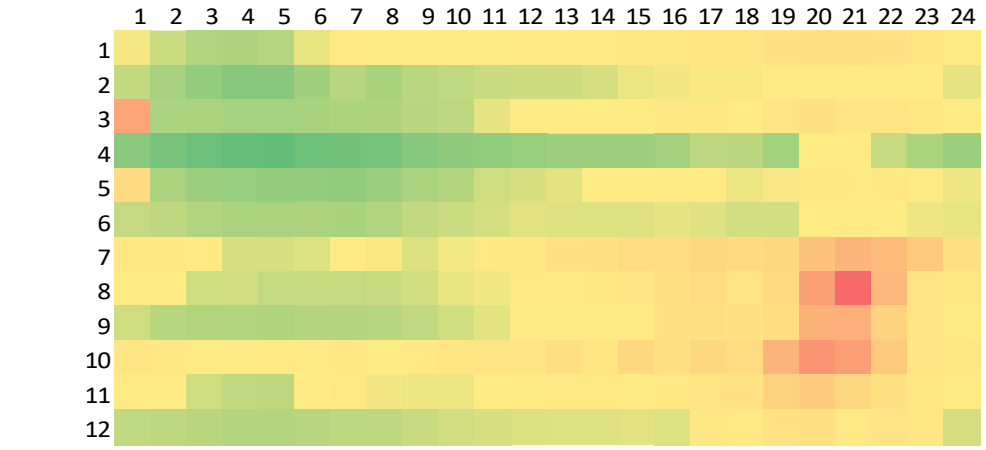
PRELIMINARY

Cost of Service Study

The marginal generation capacity cost model has also been built and the study is underway. Initial values have been produced.

- Guidehouse is also using a form of the Discounted Total Investment Method (DTIM) to calculate PREPA's marginal generation capacity costs.
- This forward-looking methodology uses capital investments for generation relative to the size of the generation unit.
- The second step is to determine the "need year" which is the year in which additional capacity is needed for load.
- Generation marginal energy costs are created through a conventional generation dispatch model called Aurora.
- Given load growth, the "need year" is not within the next five years, therefore marginal generation capacity costs are zero.
- We have received and are in the process of reviewing the marginal energy costs provided from the Aurora model.





PRELIMINARY

Thank You

Guidehouse

Appendix
Data Request Detail

- **Historical Loads:** 5 files for hourly transmission load, hourly total system load, and monthly consumption by rate class and voltage level;18 files for detailed substation loads
- **Forecasted Loads:** 2 files for 5-year load forecast by customer class and hourly production model demand
- **Marginal Cost of Service Studies:** 6 files for the last filed marginal cost study and a recent customer marginal cost study
- **Embedded Cost of Service Studies:** All workbooks, rate schedules, testimony, and other filings from the 2016 rate docket (60+ files)
- **Detailed Planning Data:** 2 files for 10-year infrastructure plan and master data for the plan
- **Detailed Cost Data:** Monthly cost reports and expenditures reports for 2017 and 2020 (48 files)
- **Regulatory Orders:** 17 files with Energy Bureau Orders and Resolutions and PREPA responses
- **Tariffs and Rate Case:** 4 files for final rate case Order, rate design report, and PREPA's tariff book