

Massachusetts Grid Modernization Advisory Council

Meeting Presentation

March 27, 2025



Agenda & Roll Call



Item	Time
Administrative Items <ul style="list-style-type: none">• Welcome, Roll Call, Agenda• Public Comment Period• Meeting Minutes Review and Voting	1:00 – 1:20
Voting Items <ul style="list-style-type: none">• EWG Membership Discussion and Voting• EWG Comments on Metrics/Reporting Review and Voting• LTSPF Letter Review and Voting	1:20 – 2:00
Cost Recovery Memo Discussion	2:00 – 2:05
Updates on ESMP Activities <ul style="list-style-type: none">• Follow-up on Metrics Discussion	2:05 – 2:15
<i>Break</i>	<i>2:15 – 2:20</i>
Biannual Reporting Presentations and Discussion <ul style="list-style-type: none">• Synapse presentation: Biannual Reporting 101• EDC presentation: ESMP Phase II Filing• GMAC Discussion	2:20 – 2:55
Close	2:55 – 3:00

Public Comment



- 15-minute period for public comment
- Speakers will have up to **3 minutes** to speak on any topics of interest related to the GMAC. Once everyone who has pre-registered has provided comment, others may speak, as time allows.
- Please state your name and affiliation before delivering your comment.

GMAC Minutes Review and Voting



Meeting Minutes

- Calling for vote to finalize:
 - February 27, 2025 GMAC minutes

Motion to approve the February 27th GMAC minutes [as distributed/as corrected]?

Expanding EWG Membership

- Andrew Schneller has expressed interest in adding Marc Lucas from National Grid as an **additional EDC representative on the Equity Working Group** to allow National Grid to be more responsive to EWG outcomes and help shape the EWG discussion (*see following slide for detailed reasoning*).
- The current bylaws outlines membership of one representative of the EDCs. The GMAC would have to vote to amend the EWG bylaws **and** vote to appoint the candidate.
- The ExCom discussed this request at their February 13th meeting and recommended that the EWG give their feedback on this decision prior to a GMAC vote.
- The EWG discussed this request at their March 24th meeting.
 - *Kathryn Wright will summarize the EWG's feedback.*

**What do GMAC members think?
Is there a motion to call a vote?**

Expanding EWG Membership (cont.)



National Grid Statement of Interest in Adding a Seat on the EWG

Increasing diversity of EWG: The EDCs are not monolithic; we have individual service territories, diverse customer bases, and unique projects. We each have our own individual experiences. Serving a broad and diverse customer base, it would be informative for the EWG to hear more than one EDC perspective on equity and stakeholder engagement. Each service territory warrants different considerations (rural vs urban, college town vs single-family homes, major language barriers vs full English speaking, transmission vs distribution, etc.).

Experience: Marc has worked at both Eversource and National Grid in the field of project engagement over the course of 20+ years. He has significant engagement experience in the types of projects the EDCs propose to build. He also has had multiple (and ongoing) “best practices” conversations with colleagues in other utilities across the county. Marc has also spoken on this topic for 7 years at multiple conferences. It would be ideal to leverage his “on the ground” experience and “real-time” feedback directly to better understand lessons learned and practical considerations of any policy decision.

EWG Comments Review and Voting



- The EWG drafted comments on the EDCs' proposed ESMP metrics and biannual report templates. The comments were discussed and approved at the March 24th meeting.
 - The comment letter references past EWG feedback and provides recommendations to improve metrics and reporting.
 - Recommendations are categorized by procedural, distributional, and recognition/structural equity.
- The EWG is seeking GMAC approval to post these comments publicly.

Are there any questions?
Is there a motion to call a vote?

Review LTSP Letter to DPU and Voting

- Councilor Kate Tohme circulated a draft letter to the DPU on the topic of a GMAC subgroup focused on LTSP stakeholder engagement.
- The new version of the letter incorporates GMAC member feedback.
- As a reminder, the GMAC is not commenting on the potential subgroup's composition or procedures at this time.

Are there any additional edits or questions on the letter?
Is there a motion to call a vote?

Synapse Cost Recovery Memo



- Synapse prepared a memo for the GMAC describing key items in the EDCs' short-term cost recovery proposal. The memo includes:
 - Background on recent DPU Order related to cost recovery
 - Synapse's thoughts about the proposal
- The memo was provided as a pre-meeting material for the February meeting.
- The GMAC expressed interest wrapping up the discussion at this meeting.
- A new redline version of the memo was circulated before this meeting.

Do GMAC members have final thoughts to share regarding this memo?
Did GMAC members find this memo useful?

ESMP Activities Updates

1. Follow-up on February metrics discussion
2. ESMP Phase II
 - Interim ESMP Mechanism
 - Metrics and Reporting (*see EDC slides*)
3. CESAG
4. IEP Working Group
5. LTSP Working Group
6. Other

Key Dates	
Service Quality Reports filed	3/1
1 st CESAG Meeting	3/28
Annual Reliability Reports (ARR) filed	3/31
Climate Compliance Plans (CCP) filed	4/1
LTSP Proposal filed	4/4*
ESMP Phase II cost recovery initial briefs filed; reply briefs filed	4/4; 4/18
ESMP Phase II metrics/reporting intervenor comments filed	4/17
1 st IEP Working Group Meeting	5/29

**EDCs plan to request a filing extension to 4/18.*

Are there any updates on these items?

Break

Please be ready to start again in ~5 minutes

Massachusetts

EDC Reports

Current EDC Reports (I)



	Subject and Frequency	Content
Service Quality	Annual reports on performance compared to established service quality guidelines	Reliability, customer satisfaction, and safety data for prior years year and monthly data for the past year. Identification of and improvement plan for circuits with poor reliability performance.
Electric Vehicle Infrastructure and Rates	Annual reports on the progress of electric vehicle programs	Barriers identified, lessons learned, explanations for variances between planned and actual performance.
Energy Efficiency	Annual and three-year term reports on the implementation progress of energy efficiency programs	Data on benefits, costs, savings, and cost effectiveness and narrative explanations for significant variances from planned values.
DER Interconnection	Annual Timeline Enforcement Metric (TEM) reports on performance under interconnection timeline tariff, monthly interconnection timeline data reports, and hosting capacity maps	Count of applications, time to interconnect, available hosting capacity by circuit

Current EDC Reports (II)



	Subject and Frequency	Content
Performance Based Revenue Adjustment (PBRA)	Annual filings as part of Performance-Based Ratemaking plans	Report on performance metrics, prospective adjustments to base rates, a description of planning and capital budgeting processes, of PBRA calculation and formula, bill impact calculations, forecast of the capital expenditures to be placed in service, and more.
Annual Reliability Reports (ARRs)	Annual filings with information related to the performance and reliability of the grid. Include annual resiliency reports.	Historical and forecasted peak demand, planned reliability and infrastructure improvements, outage data, reliability data, vegetation management activities and plans, load heat maps
Grid Modernization	Annual reports on progress towards grid modernization and program implementation	Capital additions over past year, spending projections, description of work completed, lessons learned, explanations for deviations in actuals versus planned.

Example: Massachusetts Grid Modernization Reports



Grid mod plans, orders approving plans, annual reports, evaluation reports, and grid mod factor filings available on the DPU website.

Eversource Reports Example

Year	Annual report	Annual report data	Case number - GMF/AMI filing
2023	annual report	Attachment A Attachment B Attachment C	D.P.U. 24-58 / D.P.U. 24-45
2022	annual report	2022 data	D.P.U. 23-49
2021	2018-2021 term report	2018-2021 data	D.P.U. 22-50
2020	annual report	2020 data	D.P.U. 21-58
2019	annual report	2019 data	D.P.U. 20-54
2018	annual report	2018 data	D.P.U. 19-23

Evaluation Reports

Year	Third-party evaluation report
2023	advanced distribution automation (ADA) advanced distribution management system/advanced load flow (ADMS/ALF) volt/VAR optimization monitoring and control (M&C)
2022	advanced distribution automation (ADA) advanced distribution management system/advanced load flow (ADMS/ALF) volt/VAR optimization communications monitoring and control (M&C)

Example: Massachusetts Interconnection Reports

EDC monthly interconnection reports and hosting capacity and system data portals are available on the Mass.gov site [Utility Interconnection in Massachusetts](#).

Utility Interconnection Reports

On the 15th of each month, the Electric Distribution Companies provide monthly interconnection reports. Information pertaining to these reports are provided below.

[Aggregated RAW DATA set through January 2025](#) (posted 2/21/25)

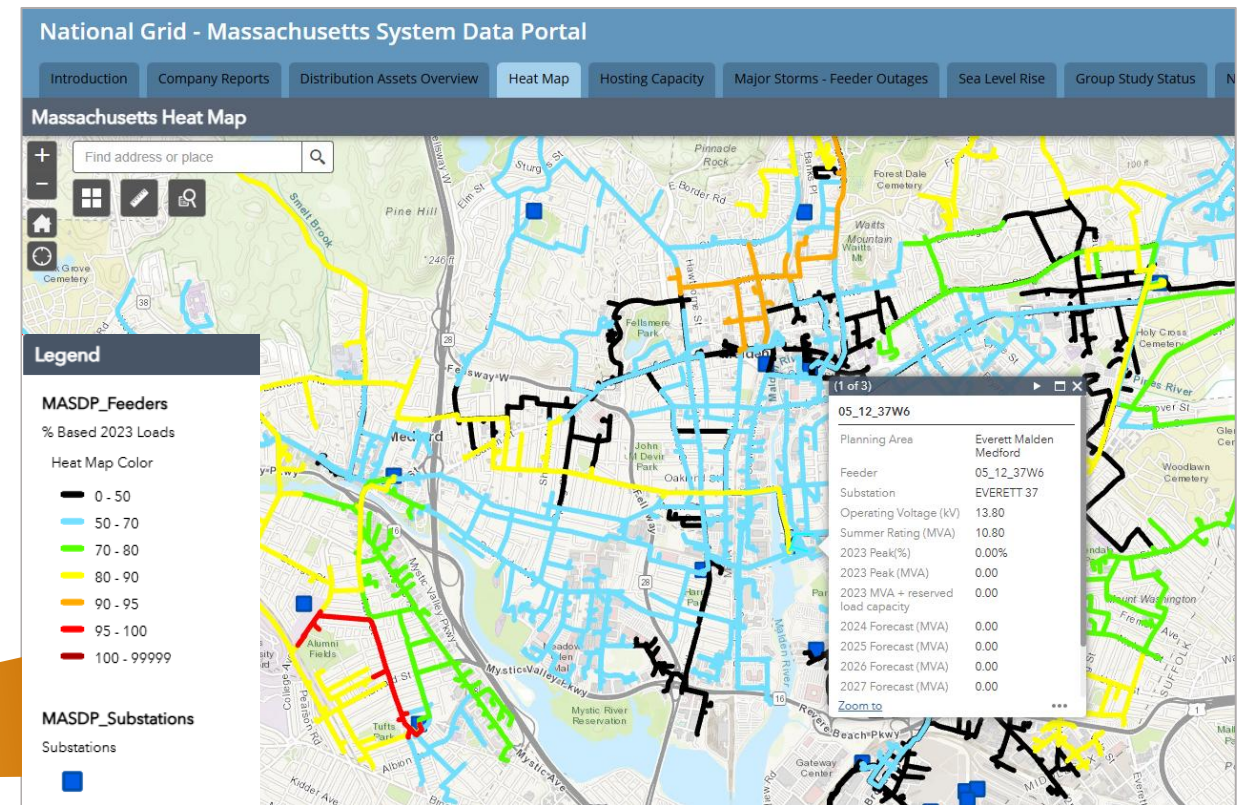
- [National Grid \(January 2025\)](#) (posted 2/21/25)
- [Eversource East \(January 2025\)](#) (posted 2/21/25)
- [Eversource West \(January 2025\)](#) (posted 2/21/25)
- [Unitil \(January 2025\)](#) (posted 2/21/25)

[Utility Reporting Accuracy Email from DOER to EDCs \(06/14/2023\)](#)

Hosting Capacity Maps

As of November 2019, the electric utilities in Massachusetts are now making Hosting Capacity Maps available for review.

- [Eversource East and West DG Hosting Capacity Map](#)
- [National Grid Massachusetts System Data Portal](#)
- [Unitil Hosting Capacity Map](#)



ESMP Reporting Proposal

- The ESMP will feature biannual (twice per year) reporting in addition to cost recovery filings. These reports will be filed with the DPU and MA State Legislature
- The EDC proposal is for the March report to be retrospective describing investments made in the previous calendar year and the September report to be prospective with a forecast of spending in the upcoming calendar year.
- In addition to reporting about investments, the reports will contain updates on strategic workstreams, Integrated Electric Planning, load forecast, outside funding opportunities, and stakeholder engagement / equity.

Section	March 31 Report	Sept. 30 Report
I.Intro	✓	✓
II. ESMP Investments <ul style="list-style-type: none"> •Summary of planned / proposed investments including reprioritization and timeline of activities •March: Actual vs. planned by investment category •Sept: Planned work by investment category 	✓ (completed work)	✓ (planned work)
III. IEP <ul style="list-style-type: none"> •Updates (Mar) and plans (Sept) from the IEP Working Group, data exchange, framework, and targeted electrification projects 	✓	✓
IV. Load Forecast <ul style="list-style-type: none"> •March: Most Recently Updated ARR, Most Recently Recorded Annual Peak, Variance of Actuals vs. Forecast •Sept: Improvements/Changes to forecasting methodology to enhance forecasts 	✓	✓
V. Outside Funding	✓ (retrospective)	✓ (prospective)
VI. Stakeholder Engagement <ul style="list-style-type: none"> •Stakeholder engagement activities including CESAG •How the EDCs are addressing distributional and structural equity in the implementation of their ESMPs •Lessons learned that may impact equity framework 	✓ (retrospective)	✓ (prospective)
VII. Non-ESMP Investments <ul style="list-style-type: none"> •Summary list of proceedings & filings (Appendix C), stakeholder working groups, and key metrics 	✓	
VIII. Metrics (Supporting Data Tables in Appendix B)	✓	
Appendix A – Excel Summary of Costs	✓ (actuals)	✓ (forecast)
Appendix B – Data Tables	✓	
Appendix C – List of Non-ESMP Docketed and Non-Docketed Proceedings	✓	

ESMP Metrics Proposal – Stakeholder

The EDCs are proposing three stakeholder focused metrics to track the quantity and quality of ESMP outreach efforts. The first metrics tracks outreach about the ESMP filing. The second focuses on the accessibility of ESMP project outreach and ensuring that outreach follows procedural equity best practices. The third metric tracks project-specific stakeholder requests and how the Company is responding to stakeholder feedback.

1. For each 5-Year ESMP term, the number of outreach and involvement meetings about the respective EDCs draft ESMP (e.g., 2030-2034 ESMP) with stakeholders, including EJC's, municipal leaders, community-based organizations and customers (i.e., residential, commercial and industrial, as well as DER customers).
2. For ESMP infrastructure projects, measures engagement opportunities by tracking: Do stakeholders impacted by EMSP infrastructure projects have the necessary information and opportunity to participate in and inform project development and implementation. Is the outreach:
 - a) In plain language?
 - b) Available in the appropriate language(s) specific to host communities?
 - c) Provide information about required approvals (e.g., permitting)?
 - d) Provide appropriate and accessible contacts for feedback?
3. The number and category of requests made as part of stakeholder feedback on specific ESMP infrastructure projects, classified into visual mitigation, access accommodations, work hours, right-of-way maintenance, informational accommodations, engineering accommodations, and damage prevention, as well as the EDC's response to these requests classified as under consideration, implemented, not accepted with reason, and other.

ESMP Metrics Proposal – Investment Metrics: Network Investments

The EDCs are proposing metrics that measure the progress and impact of proposed ESMP Network Investments, including substation & line investments as well as volt var optimization (VVO). Where possible these metrics will report on how these benefits accrue to EJ and LI populations within the EDC's territory to demonstrate the distributional equity impact.

1. Using commercially reasonable efforts, the achievement dates of ready for load (“RFL”) for major ESMP infrastructure projects which will be measured from the time the EDC receives: (1) a final, non-appealable order from the Department approving a cost recovery mechanism applicable to the project; and (2) all required permits and approvals for such projects through final, non-appealable state or federal orders and local permits.
2. The increase in: (a) DER hosting capacity, and (b) load serving capacity by substation demonstrated by an increase in transformer rating installed. This metric will additionally include reporting information specific to environmental justice communities (“EJCs”), stating what percentage of benefits is located in an EJC.
3. For the EDC's Conservation Voltage Reduction (“CVR”) and Volt/Volt-Amps Reactive Optimization (“VVO”) (together “VVO/CVR”) ESMP investments, measures of circuit-level: (a) energy savings measured in kWh, (b) peak demand reduction measured in kW, and (c) reduction in reactive power measured in VARs. Energy savings and peak demand reduction are the primary benefits of CVR and reduction in reactive power is the primary benefit of VVO.

ESMP Metrics Proposal – Investment Metrics: Resiliency and DERMS

Resiliency: The EDCs are proposing a resiliency metric to track the number of customers benefitting from ESMP resiliency investments.

1. The number of customers benefitting from incremental ESMP resiliency investments.

DERMS: The EDCs are proposing to estimate the utilization of DERMS capabilities for DER grid services.

1. For the EDC's distributed energy resources management system ("DERMS"), (a) the number of participating sites, (b) the amount (kW) of non-company owned dispatchable assets that the utility can control, and (c) number of instances sites are dispatched. The EDCs note that this metric is already reported to the Department in D.P.U. 21-80, D.P.U. 21-81, and D.P.U. 21-82 (through 2025). The EDCs propose that the metric would continue for incremental DERMS investments pursuant to ESMP in 2026 and beyond.

ESMP Metrics Proposal – GHG Reduction and Existing Metrics

GHG: Estimate the reduction in greenhouse gas emissions due to ESMP investments.

1. A measure of the greenhouse gas reduction impact of investments, as measured by investment category, enabled in alignment with statewide greenhouse gas reduction targets. This metric will be calculated once the projects are final and energy changes can be measured (typically one-year out or more). When applicable, the SCC will be applied to determine overall benefits.

Existing Metrics: Provide an overview of existing electrification metrics with along with filing dates and associated dockets. The EDCs previously filed a version of this with their metrics testimony in Phase I of the ESMP proceedings.

Facilitated Discussion

Questions for Discussion - ESMP Reporting

“[T]he Department established the first five-year ESMP term as beginning on July 1, 2025 and concluding on June 30, 2030. As such, the Companies first ESMP biannual report shall be filed on September 30, 2025, three months into the first ESMP term, and the second biannual report will be due on March 31, 2026.”

Biannual Reports

- September 30
- March 31
- Report on deployment of investments and performance metrics

Questions for GMAC Discussion

- What is the report purpose?
- What is the key information included?
- Which metrics are included?
- What time-period does the report cover?

May 1 Cost Recovery Filings

- Include documentation of the ESMP investments made in the previous year
- Summary of planned future ESMP investments, as well as anticipated revisions to and reprioritization of proposed ESMP investment

- Should cost recovery filings be separate from biannual reports?
- How should cost recovery filings be coordinated with biannual plans?

For Discussion- Principles for ESMP Reports

Reports should have a clear purpose and defined audience

- Structure and content of report should be designed to meet report purpose
- Identify primary audience (e.g., the Department, technical stakeholders) and tailor the content accordingly

Reports should be clearly written, easy to follow, and have a clear narrative

- Include an executive summary that gives an overview of key findings, trends, or summaries
- Provide meaningful insights to inform stakeholder decision making or understanding

Information should be transparent and accurate

- Use of tables, graphs to communicate data and include accompanying narrative
- Accompanied by online dashboards that provide key information
- Document data sources, methodologies and assumptions

Close and Next Steps

- The next **ExCom** meeting is April 24, 2025 from 9:30 – 10:30 AM
- The next **GMAC** meeting is May 1, 2025 from 1 – 3 PM
- **Note:** There is pending legislation on the Governor's desk to extend the remote provision of Open Meeting Law (OML). DOER will monitor and provide any updates.

Appendix

Other Jurisdictions

Example Reporting Practices

Minnesota



Minnesota utilities file an integrated distribution plan (IDP) every two years

On alternate years, utilities file an annual update of of financial data and non-wires alternatives. Annual updates contain:

- 5 years actual historical costs and 5 years projected distribution costs in 8 categories (*See example table to right*)
- Narrative of primary expenditure drivers – historical and projected
- A discussion of all projects in the filing year and next 5 years that cost >2\$M
- A non-wires alternative analysis on how alternatives compare in terms of viability, price, and long-term value

Table 2
Distribution Capital Expenditures Budget – IDP Categories
State of Minnesota – Electric 2024-2029 (Millions)

IDP Category	Bridge Year	Budget					Budget Avg
	2024	2025	2026	2027	2028	2029	2025-2029
Age-Related Replacements and Asset Renewal	\$209.5	\$220.9	\$261.4	\$238.3	\$206.8	\$212.1	\$2,279.9
New Customer Projects and New Revenue	\$43.0	\$57.0	\$58.1	\$52.3	\$54.4	\$55.3	\$55.4
System Expansion or Upgrades for Capacity	\$35.1	\$112.9	\$186.9	\$252.7	\$236.1	\$335.5	\$224.8
Projects related to Local (or other) Government Requirements	\$42.2	\$41.0	\$39.3	\$38.8	\$39.9	\$40.8	\$40.0
System Expansion or Upgrades for Reliability and Power Quality	\$37.1	\$42.8	\$49.1	\$67.3	\$106.3	\$169.1	\$86.9
Other	\$127.0	\$163.4	\$205.9	\$234.3	\$174.6	\$189.2	\$193.5
Metering	\$4.4	\$4.4	\$4.7	\$4.6	\$4.5	\$4.5	\$4.5
Grid Modernization and Pilot Projects	\$103.7	\$39.4	\$44.7	\$53.8	\$10.8	\$0.0	\$29.7
Non-Investment	(\$4.2)	(\$4.0)	(\$4.0)	(\$4.0)	(\$4.0)	(\$4.0)	(\$4.0)
Electric Vehicle Programs	\$7.3	\$8.8	\$8.3	\$9.0	\$9.9	\$10.9	\$9.4
TOTAL	\$605.2	\$686.6	\$854.3	\$947.3	\$839.2	\$1,013.4	\$868.2

Note: See Table 1 above for a description of the Xcel Energy capital budget categories included in each of the IDP categories. Additionally, Non-investment includes Contributions In Aid of Construction (CIAC), which partially offset total project costs and third-party reimbursements for system upgrades due to interconnections and solar, which are 100 percent reimbursable by the developers; annual totals will vary based on payment and project timing.

Expenditures table from 2023 Xcel Energy Annual Update of IDP
Also see Xcel Energy 2023 IDP

Hawaiian Electric Companies provides a public list of reports and reporting requirements on their website.

Docket No.	Proceeding Name	Filing Name	Reporting Requirement	Frequency	Hyperlink
99-0207	For Approval of Rate Increases and Revised Rate Schedules.	Hawai'i Electric Light Annual Calibration Factor Report	Annual Calibration Factors of Industrial Fuel Oil, Diesel, and Total System	Annually By Mar 15	https://hpuc.my.site.com/cdms/s/puc-case/a2G8z0000007i3HEAQ/pc31988
02-0051	Interconnection Standards	Rule 14H Status Report	<p>D&O 20056: "3. Unless ordered otherwise, the utilities shall continue to submit to the commission and Consumer Advocate the quarterly and annual reports set forth in section III of Decision and Order. No. 19773."</p> <p>D&O 19773: "2. HECO, HELCO, and MECO shall submit to the commission and Consumer Advocate the quarterly and annual reports set forth in section III, above."</p> <p>D&O 19773 Section III: "3. By December 31, 2002, and by the end of December of each year thereafter, an annual report detailing the time required for each customer to complete each of the six steps set forth in the interconnection process, as identified in Appendix III, section 1(c).8. Also, detailing for each application or request the utility receives, the: (A) customer's name and location; (B) start and end date of the interconnection process;(C) size and type of the distributed generation unit; (D) identification of any additional technical studies required, including the factors and criteria that caused the need for the additional studies, and the cost of the additional studies; and (E) identification of the additional protective equipment required, including the cost of the additional equipment, to the extent this information is available to the utility.</p>	Annually By Jan 31	https://hpuc.my.site.com/cdms/s/puc-case/a2G8z0000007jHEAQ/pc38436
03-0257	For Exemption From and Modification of General Order No.7, Paragraph 2.3(g), Relating to Capital Improvements.	Capital Projects Completed	<p>1. Completed Projects with a Total Cost of Less Than \$2.5 Million. Itemize each completed project with the actual costs incurred, with an explanation of any deviations of plus or minus fifteen (15) percent from the budgeted cost, and a general discussion of the reasons causing the variance.</p> <p>2. Completed Projects with a Total Cost of \$2.5 Million or More. Identify each completed project and its total cost.</p>	Annually By Mar 31	https://hpuc.my.site.com/cdms/s/puc-case/a2G8z0000007ZYEA/pc37833

CPUC issued a Proposed Decision to Improve the Utility Planning that includes several reporting directives. Utilities must:

- Include in annual reports additional details regarding ongoing and (once available) completed distribution capacity projects, including costs.
- Report on how investment projects are prioritized for execution
- Report on the data sources for pending loads and retrospectively evaluate the accuracy of their pending load forecasts (e.g., how many pending loads became actual energization requests)

The CPUC also made several reporting requirements to increase equity and stakeholder engagement. Utilities must:

- Submit an annual community engagement plan to address equity in distribution plans
- Include metrics to evaluate equity in utility distribution plan reporting.
- Hold a workshop during Q3 2025 to present utility proposals for integrated planning and solicit feedback from stakeholders on issues, including cost containment.