



Date: June 4, 2025
To: Municipal Light Board: Warren Leon, John Dalton, Brian Foulds, Bianca Taylor and Chris Schaffner
From: Jason Bulger, CMLP Director
Subject: Agenda for virtual Light Board meeting on **Wed., June 11, 2025, at 7:30 A.M.** (link below)

- | | | | | |
|---------|---|------------|------------|------------------|
| 7:30 AM | 1. Call to Order | | | |
| 7:30 AM | 2. Meetings and Minutes | 5 Minutes | Chair | |
| | <ul style="list-style-type: none"> • Vote to approve the regular session minutes of May 14, 2025. | | | |
| | Upcoming Meetings:
Jul 9, 2025; Aug 13, 2025; Sep 10, 2025; Oct 8, 2025; Oct 22, 2025* , Nov 12, 2025*
*Not officially scheduled, but we will need a second meeting in October and November. | | | |
| 7:35 AM | 3. Chair’s Update/Election of Officers | 5 Minutes | Chair | Info./Vote |
| 7:40 AM | 4. Director’s Update | 10 Minutes | Director | Information |
| 7:50 AM | 5. Broadband Update | 5 Minutes | BB Mgr. | Information |
| 7:55 AM | 6. Cost-of-Service Study Presentation/Rate Disc. | 60 Minutes | Asst. Dir. | Info./Discussion |
| | <p><u>Background:</u> CMLP is working on a roll-out of a default opt-out time-of-use rate for residential customers. To do this, we have hired a cost-of-service study (COSS) consultant to conduct a new COSS and then advise the Board through the development of a new rate model.</p> <p><u>Purpose:</u> Staff from Utility Financial Services (UFS) will be presenting their findings from the COSS and engage in broad-stroke discussions about rates. Board members will get a chance to ask questions and shape the final COSS.</p> | | | |
| 8:55 AM | 7. Energy Storage Project Updates | 20 Minutes | Director | Info./Discussion |
| | <p><u>Background:</u> The Light Plant’s strategic plan calls for grid-scale energy storage for resilience, cost savings, and to allow for more in-town solar to be installed.</p> <p><u>Purpose:</u> CMLP staff will review different project options and locations, and they will seek input from the Board before preparing project specifics to go forward.</p> | | | |
| 9:15 AM | 8. Liaison & Public Comments | 5 Minutes | Chair | Information |
| 9:20 AM | 9. Adjourn | | | |



CONCORD MUNICIPAL LIGHT PLANT

ELECTRIC | BROADBAND | ENERGY MANAGEMENT

Distribution: Select Board (1 copy)

Kerry Lafleur

Jan Aceti

Karlen Reed

Carole Hilton

Laura Scott

Eric Simms

Joe Repoff

Jeff Cosgrove

Nan Okarma

Cameron McKennitt

Join Zoom Meeting

<https://us02web.zoom.us/j/83853970051?pwd=akVzemJRQk8vNTJRUnNlOS9NNDFuQT09>

Meeting ID: 838 5397 0051

Passcode: 661712

One tap mobile

+16468769923,,87335757488#,,,,*680327# US (New York)

+16469313860,,87335757488#,,,,*680327# US

Link to view recordings of previous Light Board Meetings:

<https://www.youtube.com/playlist?list=PL1TTzrWEKOOOn0RIJ2MdE2SnNZMWYeoat>

Link to view the Director's Updates (also in meeting packets):

<https://concordma.gov/1106/Municipal-Light-Board>

Link to view the Broadband Monthly Updates:

<https://www.concordma.gov/3148/Monthly-Updates>

May 14, 2025 Minutes
to be Approved

Concord Municipal Light Board Minutes

May 14, 2025

- Draft -

Pursuant to a notice duly filed with the Town Clerk, a meeting of the Concord Municipal Light Board was held on Wednesday May 14, 2025, at 7:30 am, via a Zoom meeting. Present were Board Members: Warren Leon (Chair), John Dalton, Bianca Taylor, and Brian Foulds. Also in attendance were Jason Bulger, CMLP Director; Carole Hilton, Customer Service Manager; Laura Scott, Assistant Director of Power Supply and Energy Management; Nan Okarma, Financial Manager; Donna De Gray, Customer Service Supervisor; Ann Breitenwischer, Meter Supervisor; Dale Hartling, Broadband Manager; Karin Farrow, Office Administrator; Eric Simms, Director of Sustainability; Karlen Reed, Finance Committee Liaison to the Light Board; Cameron McKennitt, Select Board liaison to the Light Board; and residents Jim Terry and Pamela Dritt.

Note definitions for acronyms used in these minutes:

- **CMLP:** Concord Municipal Light Plant
- **SMUD:** Sacramento Municipal Utility District
- **COSS:** Cost of Service Study
- **TOD:** Time of Day
- **TOU:** Time of Use

CALL TO ORDER

Mr. Leon called the meeting to order at 7:31AM. Meeting recording will be posted to the Minuteman Media YouTube page as soon as it is available.¹

MEETINGS & MINUTES (0:15)

Mr. Foulds moved to approve the April 12, 2025, regular meeting and April 29, 2025, minutes as distributed. Ms. Taylor seconded the motion, and with all members present in favor, the motion carried.

Mr. Foulds moved to approve but not to release the minutes for the Executive Session of April 12, 2025. Ms. Taylor seconded the motion, and with a unanimous vote by Mr. Leon, Mr. Foulds, and Ms. Taylor, the motion carried.

CHAIR'S UPDATE (2:36)

Unofficially Board members have indicated support for Mr. Leon remaining as Chair and Mr. Dalton remaining as Clerk for another year.

DIRECTOR'S UPDATE (3:40)

- The Director introduced Nan Okarma, CMLP's new Financial Manager / Accountant.
- CMLP's solar site license was on the agenda at last night's School Committee meeting. While the Director was in attendance, they did not take up the agenda topic. There seemed to be some confusion as to which version of the document they were looking at, and they decided to take up this topic at next week's meeting (May 20, 2025).
- There are a lot of developments related to the electricity sector that might have ripple effects on organizations like ours.

¹ Minuteman Media YouTube Link: <https://www.youtube.com/watch?v=Dn5I7i2Bkmg>

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- Examples are in the packet and include the Governor's filed legislation, HD4707.
- The EPA's intention to reconsider several environmental regulations, including those that regulate greenhouse gas emissions and the EnergyStar program.
- The Town is considering using an energy service company or ESCO to be leveraged to make capital improvements to Town buildings that would result in energy efficiency and could result in electrification.
- CMLP continues to work with Concord Public Works on their rollout of a stormwater utility and the transfer of their curbside pickup billing to our software vendor. It is contingent upon a vote at Town Meeting to authorize their budget.
- The Heat Pump Story Map Jan displayed last month is now live. The link is in the CMLP Updates in the packet. The Energy Management team and the Town's GIS team were thanked for putting this together.
- There are 9 advanced meters left to install.
- CMLP's audit has been pushed a few weeks due to a scheduling issue on the part of our auditors. It should commence in June and still meet our deadline.
- We have an accepted offer for our third Customer Service Specialist, and she has been cleared to start. We have a Network Engineer who has accepted an offer and is still working on the pre-employment screening.
- Town Meeting is coming up. CMLP's article and PILOT are on the consent calendar. Other relevant articles include the MCI Planning, Stormwater enterprise, and the Newbury Court zoning.

SMUD PRESENTATION DEBRIEF (14:56)

After the SMUD presentation on April 29th, Board members did not have time to share their thoughts, so the Chair wanted to get them now.

Mr. Foulds expressed his great appreciation for the presentation, noting how it effectively demonstrated that time of use (TOU) rates can inform customers and offer them choices that benefit both themselves and the utility. He suggested that conducting focus groups with their own customers would be a valuable idea.

Ms. Taylor also found the presentation to be excellent, specifically appreciating SMUD's thoughtfulness in communicating to residents about the tools available to reduce their energy needs, as well as the reliability and stability of SMUD's rates. She voiced a concern that CMLP's own rates tend to change too quickly too fast from one board to the next. Ms. Taylor questioned if a TOU rate could be designed to be stable for several years, allowing customers ample time to plan and adjust, acknowledging that the adjustment process takes time.

Mr. Dalton echoed the positive sentiments, calling it a great presentation and valuing its focus. He highlighted the simplicity of SMUD's approach, particularly their focus on a three-hour peak period. John pondered whether California's energy situation, characterized by its duck curve and significant late afternoon/early evening capacity needs, might be more conducive to a stable three-hour period than New England's. Despite this, he concluded that many useful lessons could be learned, but stressed the importance of ensuring local circumstances are similar before applying SMUD's strategies.

Mr. Leon agreed it was excellent to learn about SMUD's approach in Sacramento. He suggested considering whether to call them time-of-use rates or time-of-day rates, noting SMUD's research might offer advantages in terminology. He emphasized the critical balance between precision and simplicity when implementing TOU rates. He was won over by SMUD's materials favoring simplicity, believing it would lead to a strong customer response if rates were presented in an easy-to-follow manner. He specifically highlighted the importance of drawing attention to the really high cost hours that people should avoid.

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Mr. Bulger concurred with the Chair's point about deciding on the terminology and suggested those items needed to be decided sooner than later. He acknowledged that while SMUD's rollout might not perfectly align with their own situation, it would be wise learn from their process.

TIME OF USE UPDATES (22:30)

Mr. Bulger and Ms. Scott provided updates on the upcoming Time-of-Use (TOU) rate changes, focusing on bill presentation, marketing strategies, and the cost of service study.

Bill Presentation

- New bill mock-ups from NISC were displayed to show how TOU rates will appear.
- The meter readings table will remain accessible for detailed usage analysis.
- A colorful graph will visualize energy usage by time of day (peak, mid-peak, off-peak) with color-coded costs by period. The right-side table (power cost factor, service charges) is being refined for clarity.
- Board feedback included requests for:
 - Displaying third April (two-year-old) data on the graph.
 - Adding small titles to the right-side table for better organization.

Marketing Updates

- The marketing firm Questline has been hired to manage communication for the TOU rate rollout.
- The marketing effort will have three phases:
 - Awareness Campaign (Summer): A preview of upcoming changes.
 - Pre-Go-Live Campaign (90, 60, 30 days before January 1st): Targeted communication waves with performance metrics.
 - Post-Go-Live Campaign (January onwards): Help customers understand new bills, with ongoing information through February-December via various channels.
- Board feedback included:
 - Starting marketing way ahead of the rate change
 - Potentially simplifying messaging by focusing on one season (e.g., winter) with a catchy tagline
 - Considering incentives for tools like smart thermostats
 - Emphasizing customer tools and awareness to support behavior change

Cost of Service Study

- The study is nearly complete, with the first draft from Utility Financial Services (UFS) expected by the June 11th board meeting.
- UFS will recommend the TOU rollout, including peak periods, seasons, and prices.
- UFS advocates a gradualist approach to rate changes for predictability.
- The final report is anticipated by 7/23, allowing the advertising campaign to begin with specific rates.
- Ms. Scott urged the board to reach a consensus efficiently to avoid delays.
- Board feedback included:
 - Concerns that a too-gradual approach might not incentivize behavior change, emphasizing the need for clear messaging that this is a big deal.
 - Requesting cost analysis supporting peak periods and prices beforehand for informed decision-making.

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LOCAL CONTROL DISCUSSION (55:10)

Mr. Bulger gave a presentation on local control, which was focused on state initiatives historically applicable only to Investor-Owned Utilities (IOUs) now being extended into Municipal Light Plant (MLP) territories. Other MLPs have written letters to the Governor or state agencies to push back and remind them of light plants' local control.

The initiatives include:

- Large building energy reporting, which would require utilities to disclose customer usage.
- The clean heat standard, mandating greenhouse gas emission rules.
- Clean trucks regulation, preventing certain diesel vehicle purchases.
- The potential decarbonization clearinghouse as a replacement for the Mass Save program.

Historically, MLPs have been exempt from many of these requirements because they have consistently demonstrated superior performance compared to IOUs in terms of greenhouse gas emission reductions and energy efficiency programs. They have achieved this while simultaneously offering higher reliability and lower rates. However, some of these new state requirements are viewed by MLPs as difficult to achieve and potentially more costly for ratepayers, forcing MLPs to deviate from their established trajectories. Concerns were also raised about overreach by state departments into MLP territories, potentially conflicting with Chapter 164, which is the statute that governs MLPs. It was highlighted that IOUs possess significantly more resources (staff, marketing, legal funds) to manage such extensive requirements, resources that MLPs often lack. As a result, 14 out of 40 MLPs have already sent letters to state agencies, expressing concerns and advocating for the benefits of local light boards.

Board members shared varied feedback on this issue. Mr. Foulds disagreed that such initiatives wouldn't impact Concord, even with its progress, stating that the state often prescribes *how* things are done, which can have significant effects. He also acknowledged that while some MLPs might be doing well, others do need to improve, justifying their inclusion in state mandates.

Mr. Dalton expressed reluctance to issue a broad statement urging the state to leave MLPs alone. He felt that if specific requirements are onerous given our size and resource limitations, then a targeted response would be more appropriate. He emphasized that Concord supports many of the underlying objectives of these programs.

Ms. Taylor did support a general stance or urging more independence, believing that MLPs are special and should be regulated differently due to their declining numbers nationally.

Mr. Bulger clarified that many elements of the new legislation *would* impact Concord. He noted a shift in tone from other MLPs, moving from a combative approach to one that emphasizes their unique competitive advantages without necessarily opposing the programs' goals.

Ultimately, the Chair concluded that there was not strong enough sentiment for producing a general statement at this time from the board. Instead, staff were directed to alert the Board when there is something that's being suggested by the state that would be a notable imposition. In this way, the Board could react to specific issues rather than issuing a blanket statement.

BROADBAND PLANS AND FUTURE RATES (1:07:49)

Concord Municipal Light Plant (CMLP) is evaluating its broadband services to address outdated offerings,

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increasing customer expectations, and competitive pressures from providers like Comcast. The goal is to prepare for future growth and ensure CMLP can leverage grant opportunities.

Current State and Challenges

- CMLP currently offers numerous residential and business speed tiers, many of which are below the federal standard of 100 Mbps symmetrical. Customers expect faster speeds due to smart devices and streaming. Comcast now offers significantly higher speeds and attractive introductory rates, impacting CMLP's competitive edge. The large number of existing plans often confuses customers.

Future Plans and Technology Upgrade

- CMLP is procuring XGS-PON, a next generation system that will enable speeds up to ~8.5 Gigabits per second at each customer location and support a higher density of customers. This new equipment will also provide enhanced in-home Wi-Fi solutions with features like parental controls and device management, aiming to improve customer experience.
- Key objectives include:
 - Meeting grant qualifications with higher speed tiers. Aggressively marketing new services. Simplifying the number of tiers to reduce customer confusion. Addressing the costs of new equipment (e.g., small rate increases, separate equipment charges, or absorption). Developing a strategy for migrating customers on old plans to new tiers.

Board Discussion and Feedback

- Board members wondered about usage visibility like peak bandwidth on customer bills.
- There was support for reducing the number of service tiers.
- Suggestions included keeping a very basic, low-cost now plan for residential light users and considering additional charges for optional in-home Wi-Fi services.
- The Board discussed potentially differentiating charges for unique solutions and whether business rates should subsidize residential services.
- The board agreed to analyze scenarios on how customers lowering their tiers would impact revenue.

CMLP plans to present more specific options for the board's consideration later this year.

POWER SUPPLY OPTIONS (1:40:55)

CMLP presented four potential power purchase agreements to the board for consideration, noting the current high prices for new projects.

- **Existing Hydro (New York):** Early negotiations, 5-10 year term. The board expressed high interest due to potential cost-effectiveness.
- **Existing Wind (Northern Maine):** Appears cheap but carries significant price risk due to its location; the board was not interested.
- **New Wind (Mid-Maine):** 25-year term, very high price (similar to new solar), but offers valuable load shape (comes when needed, especially in winter) and Class One RECs. The board questioned the high cost, wondering if developers were profiting excessively.
- **New Solar:** 25-year term, also very high price, and would exacerbate CMLP's existing solar saturation issue.

Overall, the board expressed caution due to the high costs of new projects, particularly given CMLP's current high rates compared to other municipal light plants. While interested in the hydro option, there was concern

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about the other projects' prices and the potential for excessive developer profits. The board questioned engaging in expensive new development, suggesting that climate goals could potentially be met through open market REC purchases.

LIASION & PUBLIC COMMENTS (1:48:57)

- Jim Terry mentioned that he has been frustrated that a bill is for the previous month's usage of electricity. He also feels it is not appropriate for the new rates that are implemented on January 1st of each year to be applied to December's usage.
- Pamela Dritt expressed a desire for the bills to be transparent and clear instead of simple and sparse. She does not find value in the bubbles on the bill, and thinks the new graph does a good job getting a lot of information onto the bill. She urged staff and the Board to have the bills offer a state-of-the-art design.

ADJOURN (1:54:20)

Mr. Foulds moved to adjourn, Ms. Taylor provided the second and with a unanimous vote, the meeting was adjourned at 9:25 AM.

Concord Municipal Light Plant Updates

June 11, 2025

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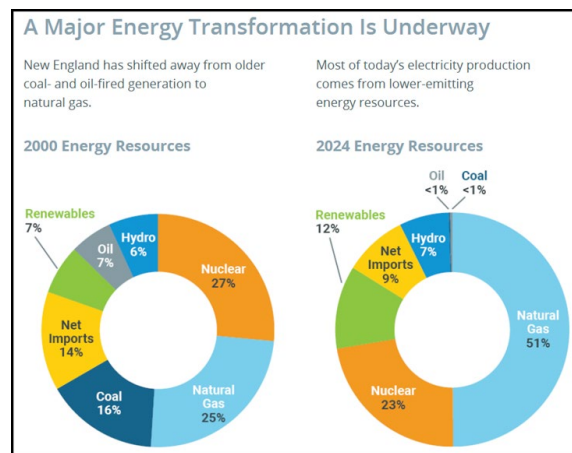
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Organization and Industry

- **Governor Healey Files "Energy Affordability, Independence & Innovation Act":** On May 13, 2025, Governor Maura Healey filed new legislation aimed at saving ratepayers an estimated \$10 billion. Key provisions relevant to electric utilities include proposals to reduce or eliminate certain charges on bills, such as decreasing net metering compensation rates for new large, standalone facilities, and phasing out the Alternative Portfolio Standard charge. The bill also seeks to give the DPU and utilities more flexibility in purchasing power supply and to accelerate the development of low-cost electricity generation, including exploring cutting-edge nuclear technologies.
- **Massachusetts DPU Investigates Proposed Revisions to Distributed Generation Interconnection Tariff:** The Department of Public Utilities (DPU) opened an investigation on May 27, 2025 (D.P.U. 25-48) into proposed revisions to the Model Standards for Interconnection of Distributed Generation Tariff. These revisions, submitted by the Interconnection Implementation Review Group, aim to simplify and expedite the interconnection process for distributed generation facilities, including energy storage systems. The DPU will hold a virtual public hearing on June 17, 2025, to receive comments, which could impact how solar, storage, and other distributed resources connect to the grid.
- **Energy New England (ENE) President Appointed to Embodied Carbon Council:** On May 2, 2025, Energy New England (ENE) announced that its President and CEO, John Tzimirangas, was appointed to the Embodied Carbon Intergovernmental Coordinating Council (ECICC) by the MA House Minority Leader. This appointment signifies ENE's ongoing involvement in broader state-level clean energy and environmental policy

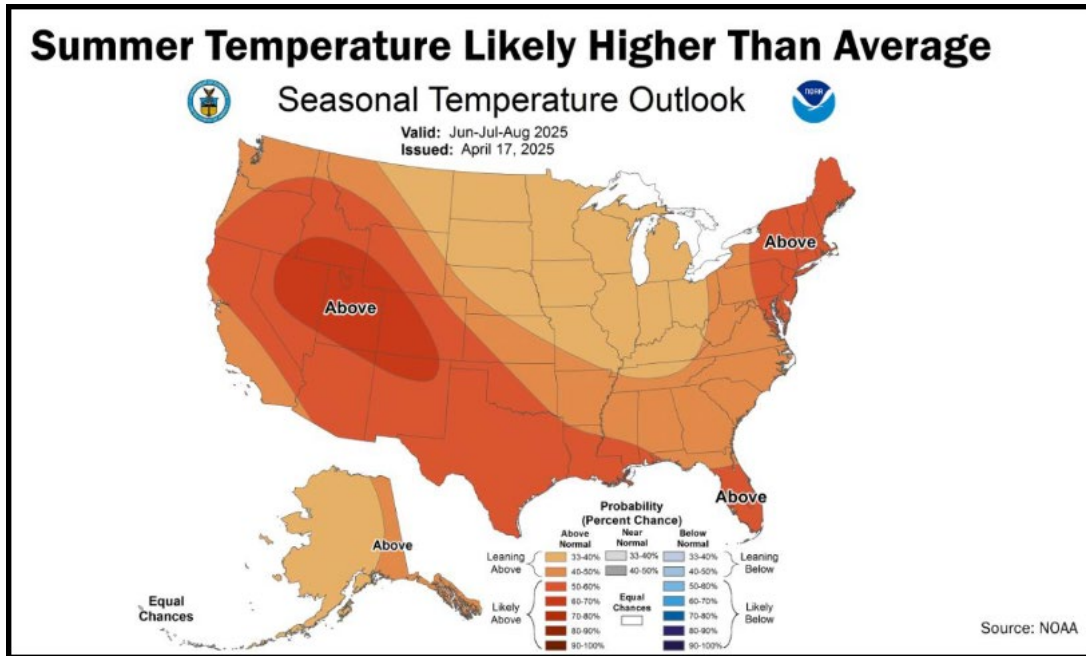
discussions, which can influence future regulations and initiatives for municipal light plants and the broader utility sector.

- Several bills have been filed in the state house relating to MLPs:
 - S.2288 / H.3534: An Act to remove woody biomass from the greenhouse gas emissions standard for municipal lighting plants. (Filed earlier in the session, still pending in committee).
 - S.2252 / H.3486: An Act relative to municipal light plant emergency mutual aid. (Filed earlier in the session, still pending in committee). This type of legislation aims to formalize and strengthen the ability of MLPs to assist each other during emergencies, which is crucial for grid resilience.
 - S.2295: An Act to reform the Massachusetts Municipal Wholesale Electric Company board of directors. (Filed earlier in the session, still pending in committee). Changes to MMWEC's governance would directly impact how MLPs collectively procure power and manage shared resources.
 - S.2158: An Act relative to municipal light plants to expand protection for other plant services, telecommunications and cable services. (Filed earlier in the session, still pending in committee). This bill seeks to expand public records exemptions for MLPs to protect trade secrets and competitively sensitive information related to services like telecom and cable, ensuring they can remain competitive.
- ISO New England, operator of the region's electric grid, expects sufficient energy supply to meet consumer demand for electricity this summer. **The ISO predicts electricity demand to reach 24,803 megawatts (MW) under normal weather conditions, and up to 25,886 MW during any periods of above-average summer weather, such as an extended heat wave.** While the ISO anticipates adequate electricity for homes and businesses this summer, several consecutive days of hot and humid weather, loss of generation, or other factors could cause periods of tight supply margins. ISO New England grid operators have several tools available to manage these stresses and maintain reliability on the system. Click here to learn more about their summer outlook: https://www.iso-ne.com/static-assets/documents/100023/20250522_pr_summer_outlook_2025.pdf



From the [2025 New England Power Grid Profile](#)

- **Monthly wholesale electricity prices are 61% year-over-year.** Learn more at the ISO-New England’s bulletin: <https://isonewswire.com/2025/06/04/monthly-wholesale-electricity-prices-and-demand-in-new-england-april-2025/>
- **FERC issues their annual 2025 Summer Assessment, which shows a warmer-than-usual summer.** Read more here: <https://www.ferc.gov/news-events/news/ferc-releases-2025-summer-assessment>



- **NERC** finds our region is at an elevated state for potential for insufficient operating reserves in above-normal conditions. Read more in their annual Summer Reliability Assessment: https://www.nerc.com/pa/RAPA/ra/Reliability%20Assessments%20DL/NERC_SRA_2025.pdf
- CMLP and the Concord Town Manager wrote letters of support for a grant application for funds to study networked geothermal.
- The Concord Town Meeting completed on Wednesday, June 4, 2025. Here is a summary of the actions taken at the meeting: <https://concordma.gov/DocumentCenter/View/55860/2025-Town-Meeting-Update-FINAL?bidId=>

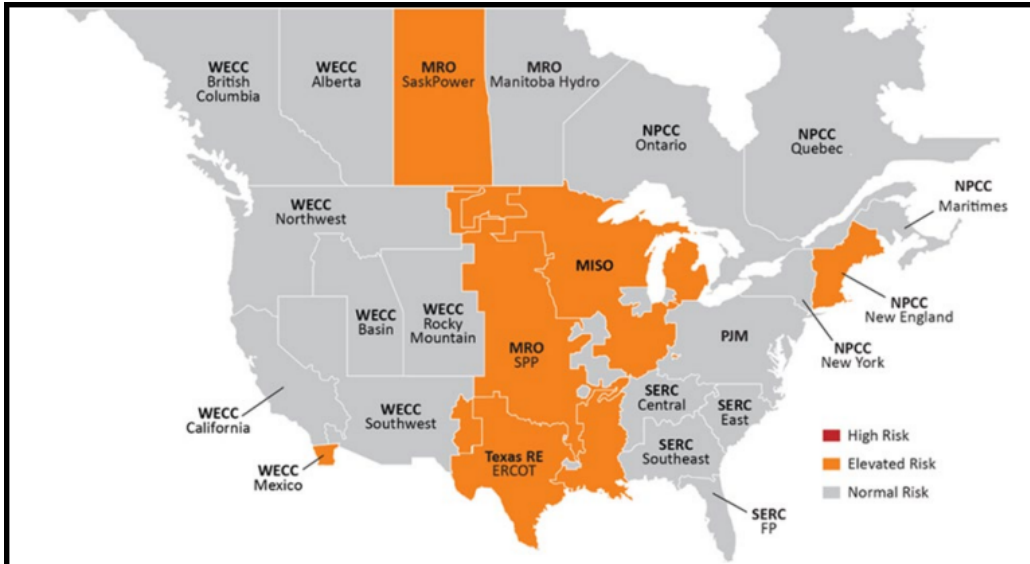
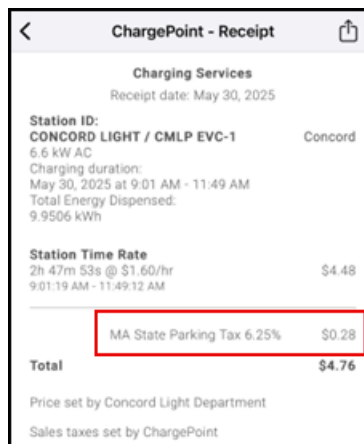


Figure 1: Summer Reliability Risk Area Summary

Seasonal Risk Assessment Summary	
High	Potential for insufficient operating reserves in normal peak conditions
Elevated	Potential for insufficient operating reserves in above-normal conditions
Normal	Sufficient operating reserves expected

Energy Management

- Vendors such as ChargePoint, which operate public EV charging stations in Concord, are now obligated to collect and remit state sales tax for paid charging sessions in various states, including MA. ChargePoint’s tax collection and remittance policy for the US can be found [here](#). EV drivers will notice the sales tax on their receipt when they use public EV charging stations in Town, around the state and beyond. Energy Management staff notified our customers of this development in the e-newsletter we sent out on June 2, 2025.



Finance Updates

- The annual CMLP financial audit will commence on June 16, 2025. The completed audit is expected in August or early September.
- The team is working on streamlining the month-end close process, and is working on closing the month of April.
- Financial Manager Nan Okarma will go to the annual NISC user conference in Kentucky later this year.

Battery Storage and Solar Project Updates

- On May 20, 2025, the School Committee voted to accept the site license for the rooftop and canopy solar on the new middle school. CMLP reached out to start the bid process and expects a calendar soon.
- Staff conducted several more meetings with battery developers and plan to brief the Light Board on progress (and get feedback) at the June 2025 Light Board meeting.

Advanced Metering Project Updates

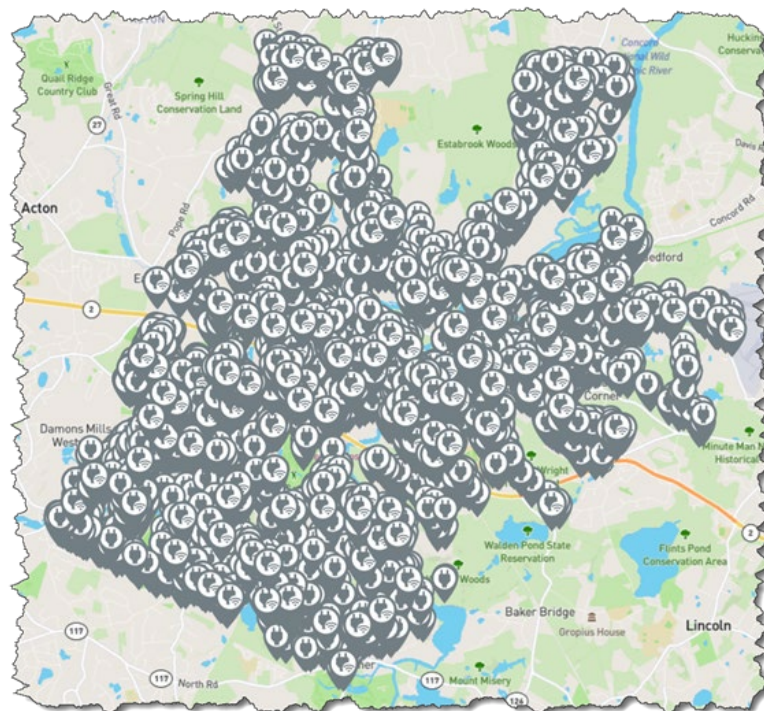


Figure 1: May 2025 Meters

- Metering has a few meters left to install – a few commercial (including one location where birds have nested in the bushes obstructing access to the meter) and a couple of opt-out meters.
- Eaton will provide on-site user training and system tuning during the week of June 9.
- We are seeing more water billing problems as a result of new meters/nodes being set up incorrectly in the billing. Ann Breitenwischer is investing time researching and figuring out the problems, working with Donna De Gray correcting the water bills as they come up. Metering is showing the Water Department how to use tablets and Service Orders to install their meters and water nodes.
- Metering continues to add demand readings in the billing system for residential and G1 accounts now that this information is available with the new AMI meters. This task will be ongoing for several months. Having these demand readings will help Metering and other divisions with additional data for troubleshooting and research.
- Ann Breitenwischer and Carole Hilton are working on a draft job description for an AMI Technician position. The new Advanced Metering System requires a different skillset than a traditional meter technician.

Engineering and Operations

- Competed manhole rescue refresher / skills assessment training
- Signed up four members of our operations staff for NISC AppSuite training workshop in Vermont – June 17th and 18th
- Met with SEL to discuss the SCADA project – everything is on schedule, and we expect some preliminary drawings in the next few weeks
- One FLO fast charger was repaired after going offline – no cause found
- Continue replacing poles in the Prairie and Westvale areas
- Assisted Eversource with a failed component on the relay protection for 532 (transformer 2) at 219
- Completed HVAC maintenance of operations center and substations 219 and 223
- Removed hazard trees from operations center and replaced them with native trees at a 2:1 ratio
- Completed scheduled random drug and alcohol screening

Power Supply

- The Connected Homes demand response program launched 6/2/25. In the 1st 2 days we had 125 applications!

- 92% were for EVs; 7% were for thermostats; 1 was for a heat pump controller
- Hosted a visit by MMWEC to discuss Connected Homes onboarding and other program details
- Met with the Customer Service Team to provide training on Connected Homes
- Met with ENE several times to discuss how Connected Homes fits in with the programs and services ENE provides
- Attended a Massachusetts Municipal Association webinar on Mental Health Awareness for managers
- Had multiple discussions with battery providers to finalize offers
- Conducted performance evaluation forms and meetings with employees
- Attended networked geothermal subcommittee meeting
- Worked on developing commercial EV charging rebate for Minuteman Arc
- Dealt with a change in ownership of the 3 commercial buildings with PPA solar on Virginia Road. The PPA for the solar output from these 3 buildings was signed in 2015. The buildings have changed hands multiple times. Each time a new owner comes in, they have a different way of interpreting the PPA rules about metering and measurement. Invoices can be a problem.
- Developed submission for the Second Electric Vehicle Infrastructure Coordinating Council (“EVICC”) Assessment to be published by the Massachusetts Executive Office of Energy & Environmental Affairs in August. CMLP was selected to be featured for its EV charging programs and initiatives.
- Began identifying potential solar developers to which we will send the Middle School solar RFP

Customer Service / Metering

- We have hired a new Customer Services Specialist, Joanne Miliano, who started with us this week and will be in various stages of training for the next 4-6 months. Donna De Gray, Customer Service Supervisor, has started Joanne’s training on the billing system and our procedures.
- Customer Service is very excited to finally begin our four-month project with NISC to migrate to Cloud-based iVUE Connect Service for the CSSs. In addition to the training sessions on Connect and using Service Orders, we have weekly project status meetings for the duration of the project as well as several administrative sessions to go through the Connect configuration and security permissions.
- The CSSs will attend a Yukon user training session.
- The CSSs’ collections efforts are going well this season. While we start with a large list of customers with past-due accounts a few days prior to disconnection, we have relatively few actual disconnects. Delivering the door hangers 24 hours prior to disconnection is very

effective in reminding customers to pay or to contact us if they need assistance. Customer Service supervisors and management will review disconnect/reconnect procedures for the new AMI meters.

- Donna De Gray is changing the seasonal rates and meter setups this week for our heat pump customers for the spring and summer. This is a complex process, and the setup can differ from one heat pump customer to the next. Metering will assist with QA on these rate changes.
- Donna and Carole Hilton are working with NISC AMS and graphic designer on minor bill print changes and graphics for the new TOU rate.
- Ann, Donna, and Carole met to identify benefits and things to consider for potentially moving to one billing cycle. Shared this document with the management team for consideration.



TOWN OF CONCORD MUNICIPAL UTILITIES

ELECTRIC | WATER | SEWER | TELECOMMUNICATIONS

May 2025 – Broadband Updates

Concord Broadband is pleased to share the following updates and information from the past month. Please do not hesitate to contact us at broadband@concordma.gov should you have any questions, concerns, or feedback.

Operations

We are pleased to announce that Concord Broadband is fully staffed! Daniel Chen, a Network Engineer, started on June 2, 2025. He is working with Ahmed, our Senior Network Engineer, and Dale, our Broadband Manager, to get up to speed and learn as much as possible. Welcome, Daniel, and we are thrilled to have the team where it's at today.

We have completed procurement on the XGS-PON solution from our vendor, and we are expecting shipment in the next few months. The vendor will be assisting with the setup, deployment, and migration of customers to the new platform.

The Broadband team has identified several Local Convergence Cabinets that need to be rebuilt or moved. Some were not wired and waterproofed correctly. Others lacked adequate expansion space for new customers. We are looking at solutions that are pre-terminated, which means a more weather-tight fit and a faster cutover when the cabinet is replaced.

Your Municipal Fiber: A Look at Community-Wide Progress and Benefits

We're thrilled to share an update on the ongoing success and positive impact of our municipal fiber-to-the-home broadband network in our community! As a publicly owned and operated service, our primary goal is to serve you, our residents, with reliable, affordable, and high-performance internet.

Across the nation, communities are increasingly choosing to build their own fiber networks, and for good reason. Just recently, cities like Bountiful, Utah, have announced the completion of their city-wide fiber networks, delivered ahead of schedule and providing lightning-fast internet to every home and business. This mirrors the commitment and progress we're making right here.

Here's why a municipal fiber network is a game-changer for our community:

Upcoming Maintenance

At 4am on June 10, the Network team is doing non-service-impacting maintenance on one of our ISP links to begin the process of moving to new equipment.

Learn more on our maintenance page here:

<https://concordma.gov/3144/Broadband-Maintenance>

- **Local Control, Local Focus:** Unlike large, national providers, our municipal broadband organization is accountable directly to the community. This means decisions about our network's expansion, service offerings, and pricing are made with the best interests of our residents in mind, not corporate profits.
- **Boosting Our Local Economy:** High-speed, reliable internet is essential for modern businesses to thrive. Our fiber network provides the robust infrastructure needed to support existing local businesses and attract new ones, fostering innovation and job creation right here in our town.
- **Enhancing Education and Opportunity:** From remote learning to accessing online resources, a strong internet connection is vital for educational success. Our fiber network ensures that every student and family has the reliable access they need to learn and grow.
- **A Foundation for the Future:** We're not just building a network for today; we're building one for tomorrow. Our fiber infrastructure is designed to adapt and expand with future technological advancements, ensuring our community remains at the forefront of digital connectivity for generations.

We are continually working to expand our fiber reach and connect more homes and businesses. Your support and continued engagement are crucial as we build a more connected and prosperous future for everyone in our community. Stay tuned for more updates on our progress and how you can get connected!

Understanding your Fiber-to-the-Home Connection

As your municipal broadband provider, we're dedicated to bringing you the best internet experience possible. That's why we've invested in a cutting-edge Fiber-to-the-Home (FTTH) network, delivering unparalleled speed, reliability, and a future-proof connection right to your doorstep.

But what exactly is fiber-to-the-home, and how does it benefit you?

Unlike traditional internet services that rely on older copper cables or shared wireless connections, FTTH uses thin strands of glass or plastic to transmit data as pulses of light. Imagine light traveling at incredible speeds – that's essentially how your data moves across our fiber network! This direct, dedicated connection to your home means:

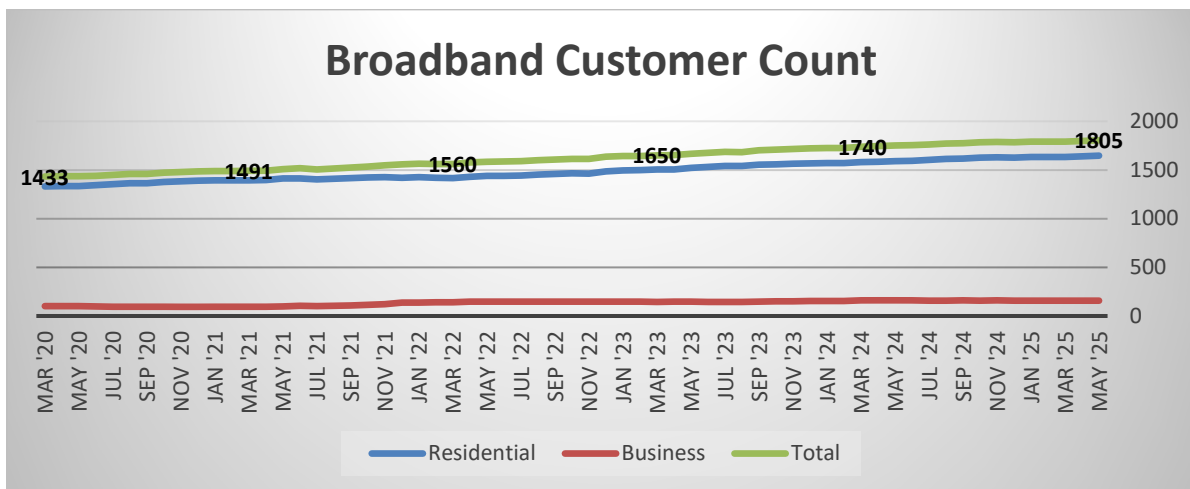
- **Blazing Fast Speeds:** Say goodbye to buffering and lag. Fiber offers symmetrical upload and download speeds, meaning you can stream 4K video, participate in crystal-clear video calls, and upload large files with ease, all at the same time, across multiple devices in your home.
- **Unrivaled Reliability:** Fiber optic cables are far less susceptible to interference from weather, electromagnetic signals, or even distance. This translates to a more stable connection, fewer outages, and consistent performance, even during peak usage hours.
- **Future-Proof Technology:** The demand for bandwidth is constantly growing as new technologies emerge – from smart home devices to virtual reality and beyond. Our fiber network is designed to handle these increasing demands for decades to come, ensuring your internet service remains top-tier without needing significant infrastructure overhauls. This is an investment in your home's digital future.

- Increased Home Value:** Did you know that access to a fiber-to-the-home connection can actually increase your property's value? Studies have shown that homes with fiber internet can see a significant boost in market value, making it a valuable asset for homeowners.

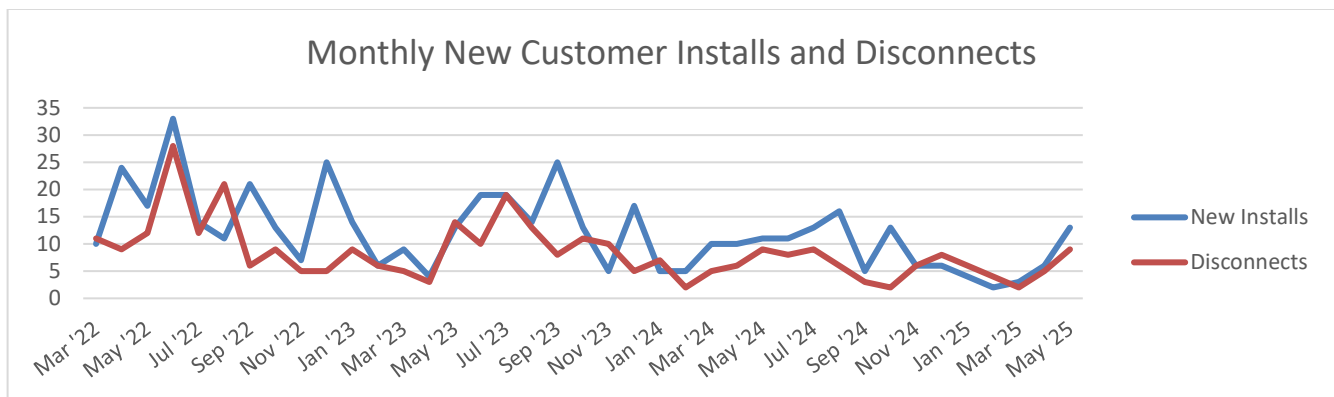
Our commitment to FTTH means you're getting the gold standard of internet connectivity. It's more than just faster internet; it's a foundation for a more connected, productive, and enjoyable digital life.

Visit <https://concordma.gov/broadband> to learn more or call us at (978) 318-3101.

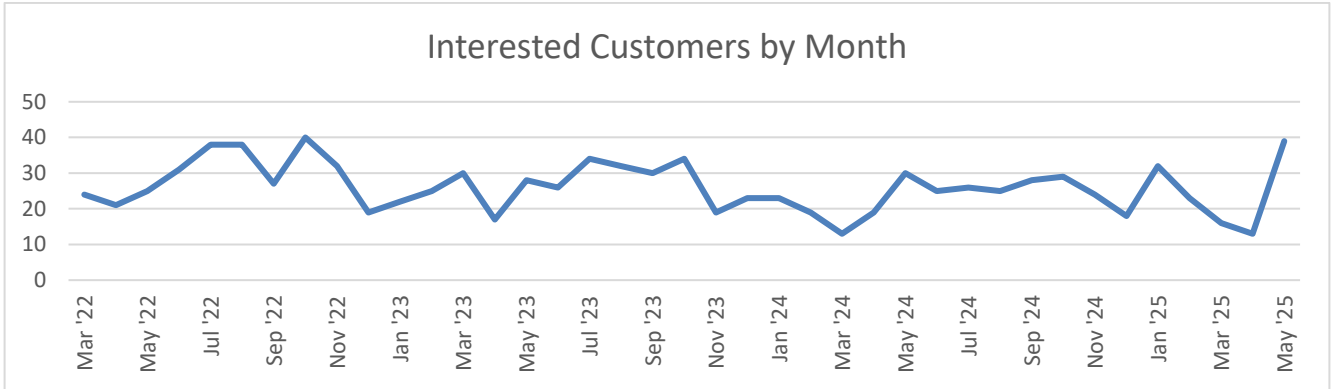
Monthly Metrics and Business Data



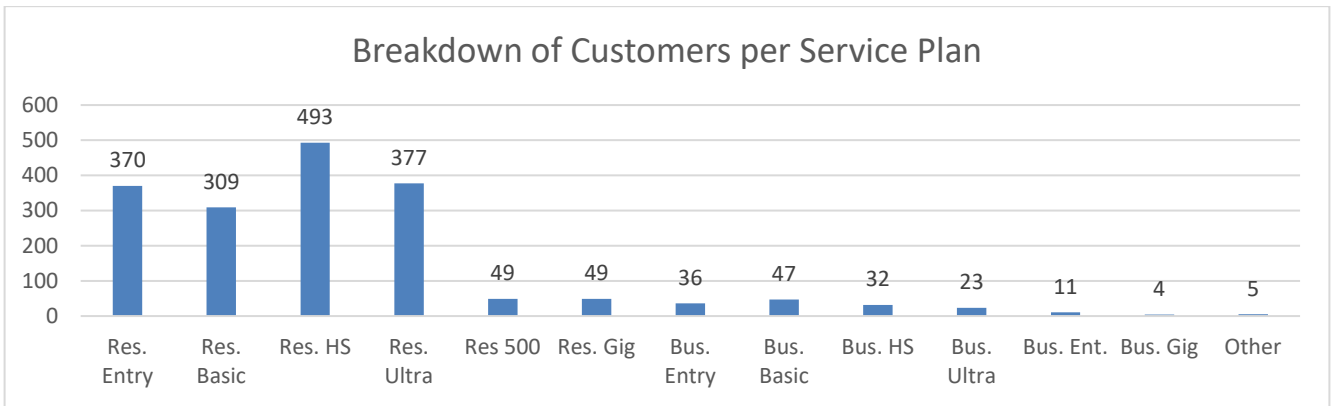
(Customer count: March 2020 – Present)



(The number of new installations and disconnects completed each month.)

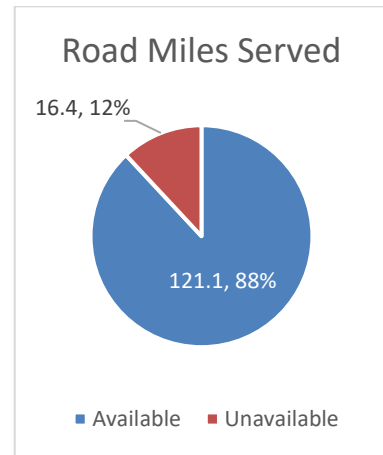
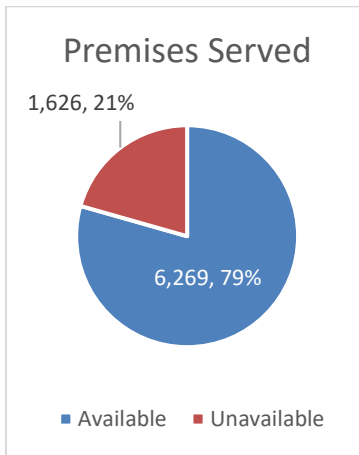
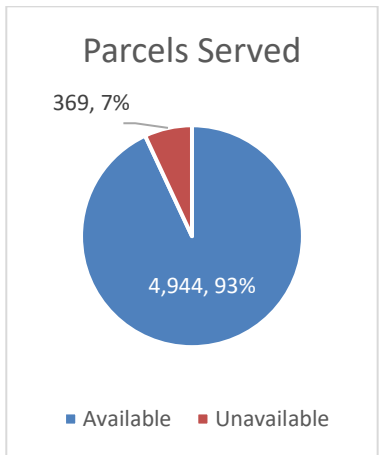


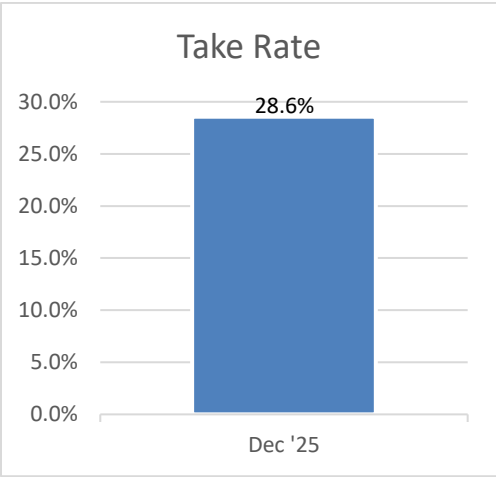
(This is the number of individuals who submit the Broadband interest form, whether they are in the current service area or not.)



(This is the number of each customer on our different service plans as of 5/31/2025.)

Other Metrics





(As of 2/15/2025)

Appendix

Fiber Broadband Completion Task Force's Report Goals

Goal	Type	Priority	Responsible Party	Additional Info.
Policies (p.39)				
• Universal Access	Policy	Highest	Select Board/Town Meeting	
• Expansion outside current territory	Policy	Low	Select Board/Town Meeting	Conversations happening
• Support Economic Vitality, Sustainability, Equity & Inclusion	Policy	High	Select Board/Light Board/TM Economic Development	Rate subsidy planned
• Affordable Housing	Policy	Medium	Select Board/Housing Groups	Rate subsidy planned; working on Concord Housing Authority properties
• Public Safety	Policy	Medium	Select Board/Town Manager	
• Education	Policy	Medium	Select Board/School Dept.	
• Government Access (PEG)	Policy	Medium	Select Board/PAAC	
Recommended metrics for tracking (p.41)				
• Parcels served	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
• Premises served	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
• Road miles served	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
• Subscribers	Metric	High	Town Staff/Light Board	Complete; will report monthly
• Take rate	Metric	Medium	Town Staff/Light Board	Complete; will report quarterly
• Churn	Metric	High	Town Staff/Light Board	Complete; included in monthly report
• Installations	Metric	Highest	Town Staff/Light Board	Complete; will report monthly
Governance (p.39)				
• Track progress against completion	Metric	Highest	Light Board/Town Staff	Working on this
• Rate of return policy	Policy	High	Light Board/Town Staff	Working on this
• Financial goals with regular reporting	Policy	High	Light Board/FinCom	Working on this
• Retained earnings and reserve policy	Policy	High	Light Board/FinCom	Working on this

Goal	Type	Priority	Responsible Party	Additional Info.
Strategic Planning Goals (p.43)				
• Marketing and growth	Metric	High	Light Board/Town Staff	Working on this
• Business return	Policy	High	Light Board/Town Staff	Working on this
Budgeting Process for Fiber Expansion (p.41)				
• Expand to fill existing opportunities	Planning	High	Light Board/Town Staff	
• External funding sources	Research	Medium	Light Board/Town Staff	Working on this
• ARPA Relief Funds Allocation, incl. Lost Revenue	Finance	Highest	Select Board/Town Manager	Complete
• Review/Confirm Internal Loan Findings	Finance	Highest	Financial Audit Comm/Staff	Complete
• Review and Rescind PILOF to MMN	Finance	High	Select Board/Town Manager	Complete
Capital Planning Process (p.42)				
• Review/Revise Debt financing schedule	Policy	Highest	Light Board/Town Staff	In progress; due to positive financial situation, anticipating being able to repay faster.
• Quantifying cost of expansion	Planning	Medium	Town Staff	Working on this
• How to fund expansion	Planning	Medium	Light Board/Town Staff	Working on this
• Revise/refine methods for computing ROI	Planning	Medium	Light Board/Town Staff	Working on this
Construction and Logistics (p.42)				
• Vibratory plow – direct buried fiber cables	Operations	Medium	Town Staff	Working on this
• Revise/Refine Communication conduit construction standards and guidance	Policy	Medium	Town Staff	Working on this
• Integrate Fiber construction with the Roads Program – focus on Streets without fiber that already have underground electric	Planning	High	Town Staff	Working on this

Concord Municipal Light Plant

Electric Cost of Service Study/Financial Projection

Mark Beauchamp

President, Utility Financial Solutions, LLC

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616 403 5450

Objectives

- Financial Projection
 - Significant Assumptions
 - Summary Financial Results
 - Debt Coverage Ratio
 - Minimum Cash Levels
 - Target Operating Income
- Review Cost of Service Results
 - Class Cost Results
 - Customer Charges
- Rate Adjustment Plan
- Sample Rate Designs

Significant Assumptions

Fiscal Year	Inflation	Growth	Purchase Power Change	Investment Income	Utility Funded Capital
2026	3.0%	2.7%	-0.6%	3.0%	7,972,469
2027	3.0%	2.0%	0.7%	0.5%	2,176,673
2028	3.0%	2.0%	-0.9%	0.5%	11,920,806
2029	3.0%	1.1%	0.7%	0.5%	2,005,646
2030	3.0%	0.9%	1.7%	0.5%	2,056,228

Summary Financial Results (without rate increase)

Fiscal Year	Projected Rate Adjustments	Debt Coverage Ratio	Adjusted Operating Income	Optimal Operating Income	Projected Cash Balances	Recommended Minimum Cash
2026	0.0%	16.59	\$ 4,918,709	\$ 5,401,852	\$ 14,255,149	\$ 12,310,960
2027	0.0%	26.54	\$ 5,010,213	5,543,667	\$ 19,836,880	12,293,205
2028	0.0%	N/A	\$ 5,151,255	6,213,272	\$ 16,449,438	12,195,360
2029	0.0%	N/A	\$ 4,869,407	6,326,562	\$ 22,950,179	12,336,630
2030	0.0%	N/A	\$ 4,626,492	6,442,709	\$ 29,268,875	12,519,953

Projected Rate Track

Fiscal Year	Projected Rate Adjustments	Debt Coverage Ratio	Adjusted Operating Income	Optimal Operating Income	Projected Cash Balances	Recommended Minimum Cash
2026	0.0%	16.59	\$ 4,918,709	\$ 5,401,852	\$ 14,255,149	\$ 12,310,960
2027	0.0%	26.54	\$ 5,010,213	5,543,667	\$ 19,836,880	12,293,205
2028	0.0%	N/A	\$ 5,151,255	6,213,272	\$ 16,449,438	12,195,360
2029	0.0%	N/A	\$ 4,869,407	6,326,562	\$ 22,950,179	12,336,630
2030	0.0%	N/A	\$ 4,626,492	6,442,709	\$ 29,268,875	12,519,953

COS Summary Results

Description	Cost of Service	Projected Revenues	Effective % Change
Residential	\$ 19,033,154	\$ 17,805,697	7%
Small Commercial	\$ 2,910,343	\$ 2,661,702	9%
Medium Commercial	\$ 5,642,884	\$ 6,100,161	-7%
Large Commercial	\$ 10,518,976	\$ 11,421,355	-8%
Lighting	\$ 427,412	\$ 60,711	604%
	\$ 38,532,770	\$ 38,049,626	1.3%

Monthly Customer Charges

Customer Class	COS Customer Charge	Current Average Customer Charge
Residential (R-1)	\$ 26.68	\$ 20.00
Small General (G-1)	37.48	20.00
Medium General (G-2)	195.47	59.00
Large General (G-3)	891.54	477.00

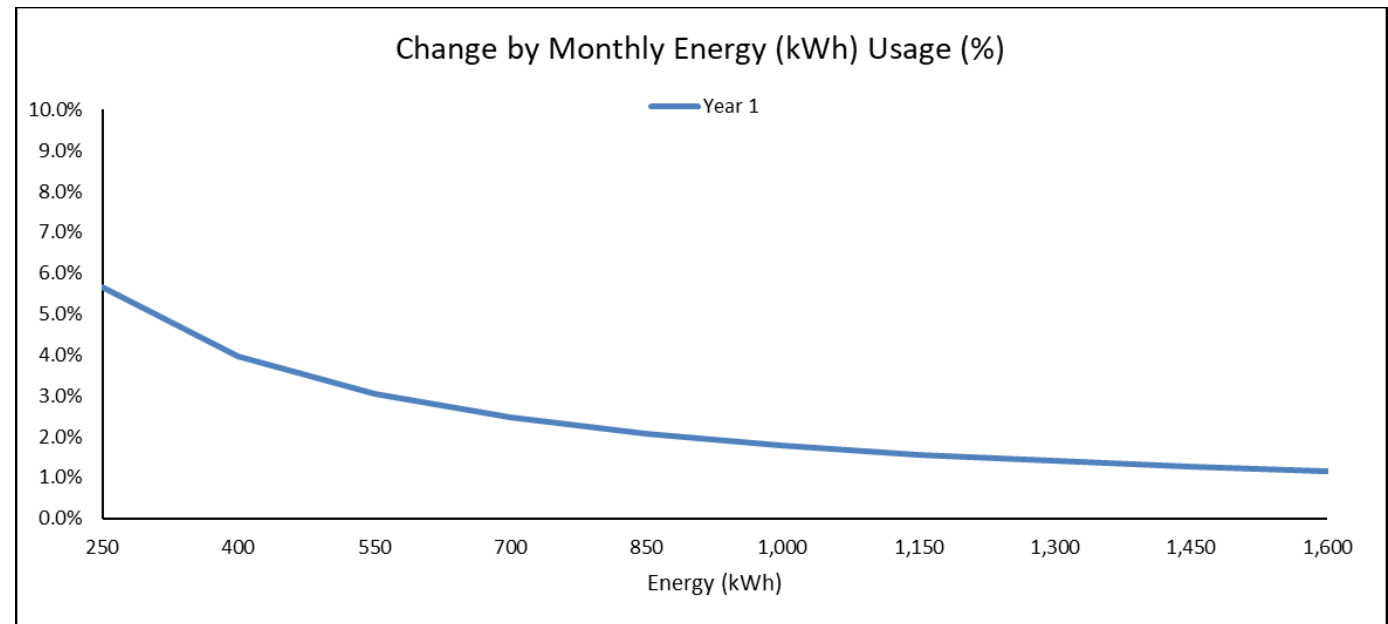
Customer Breakdown		
Distribution Customer Costs	\$	12.66
Transformer Customer Costs		2.28
Substation Customer Costs		-
Meter O&M		3.65
Meter Reading		0.43
Billing		3.49
Services		2.91
Customer Service		1.26
Customer Charge \$/Meter	\$	26.68

Next Steps

- Proposed Rate Change = 0%
 - Suggested Bandwidth to Move Classes toward Cost of Service = 2%
 - Largest Class Increase 2%
 - Largest Class Decrease 2%
- Move Customer Charge Toward COS
 - Residential Suggested Increase \$2

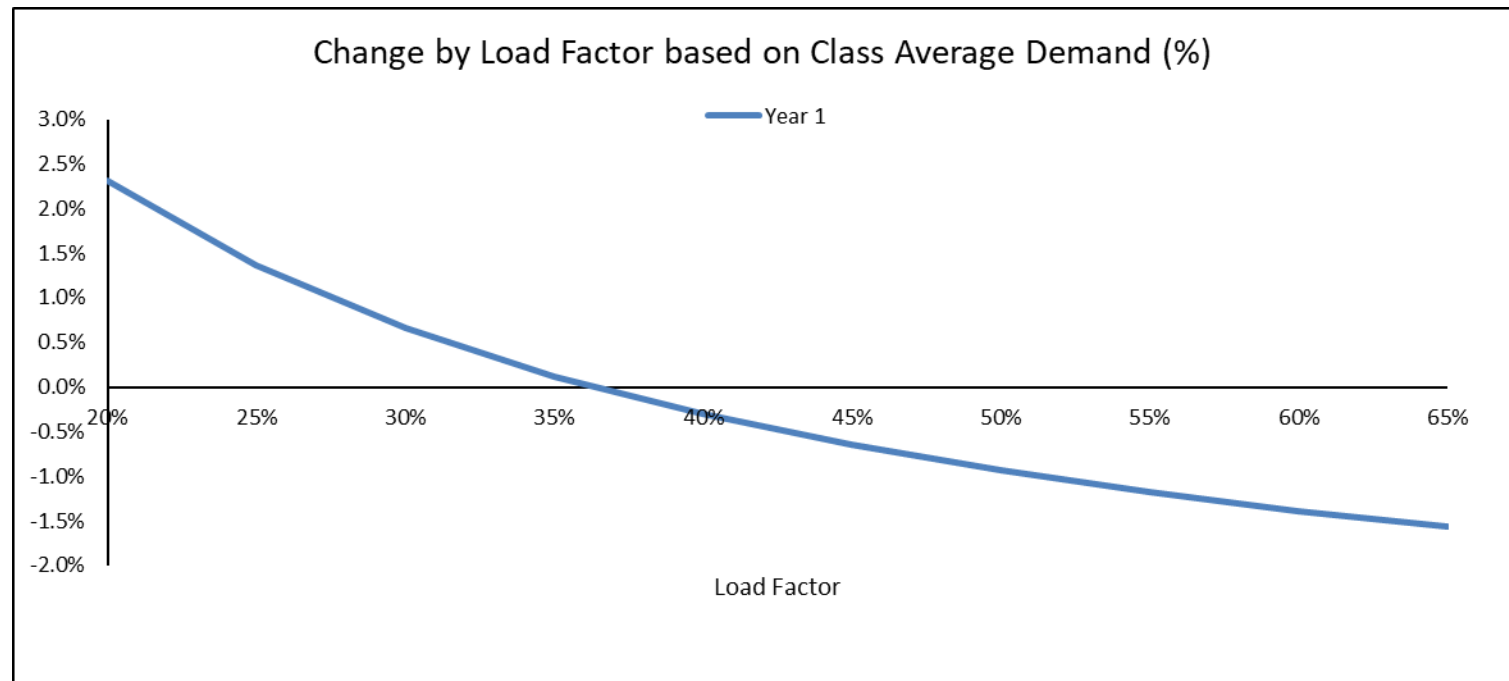
Sample Small General (SG1) Rate

Rates	Current	Year 1
Monthly Facilities Charge:		
Monthly Charge	\$ 20.00	\$ 24.00
Energy Charge:		
Capacity	\$ 0.05708	\$ 0.07340
Distribution	\$ 0.06561	\$ 0.04926
Energy	\$ 0.08393	\$ 0.07903
Power Cost Adjustment:		
All Energy	\$ (0.00490)	\$ -
Underground Adder	\$ 37,951	\$ 38,710
Revenue from Rate	\$ 2,568,035	\$ 2,619,396
Change from Previous		2.0%



Sample Medium General (MG1) Rate

Rates	Current	Year 1
Monthly Facilities Charge:		
Monthly Charge	\$ 59.00	\$ 100.00
Energy Based Charge:		
Capacity	\$ 0.04209	\$ 0.04779
Distribution	\$ 0.06561	\$ 0.05248
Energy	\$ 0.08393	\$ 0.07903
All Energy	\$ 0.19163	\$ 0.17929
Demand Charge		
All Demand	\$ 9.56	\$ 10.56
Power Cost Adjustment:		
All Energy	\$ (0.00490)	\$ -
Underground Adder	\$ 68,907	\$ 68,542
Revenue from Rate	\$ 4,662,733	\$ 4,569,478
Change from Previous		-2.0%



Residential Time-of-Day (TOD)

Month	TOD Period
Jan	Standard
Feb	Standard
Mar	Shoulder
Apr	Shoulder
May	Standard
Jun	Standard
Jul	Standard
Aug	Standard
Sep	Standard
Oct	Shoulder
Nov	Shoulder
Dec	Standard

Standard	
Mon-Fri (Excluding Federal Holidays)	
On-Peak	12 Noon - 3PM, 7PM - 8PM
Critical-Peak	3PM-7PM
Off-Peak	All Other Hours

Shoulder	
Mon-Fri (Excluding Federal Holidays and Patriot's Day)	
On-Peak	9AM - 9PM
Off-Peak	All Other Hours

Residential Time-of-Day Rate (no rate revenue change)

Rates	Current	TOU Phase 1	TOU Phase 2	TOU Phase 3
Monthly Facilities Charge:				
All Customers	\$ 20.00	\$ 20.67	\$ 21.33	\$ 22.00
Energy Charge:				
Shoulder On-Peak	\$ 0.21480	\$ 0.22765	\$ 0.24051	\$ 0.25336
Shoulder Off-Peak	\$ 0.21480	\$ 0.19831	\$ 0.18183	\$ 0.16534
Standard On-Peak	\$ 0.21480	\$ 0.20606	\$ 0.19732	\$ 0.18858
Standard Off-Peak	\$ 0.21480	\$ 0.20363	\$ 0.19246	\$ 0.18129
Standard Critical-Peak	\$ 0.21480	\$ 0.29300	\$ 0.37119	\$ 0.44939

Does not include adders (Underground, PCA, PASNY etc.)

Residential Time-of-Day Rate (3 Period Phase-In - Phase 1 Effects)

Rank	Decrease %	Annual \$	Monthly \$
1	-11.16%	\$ (868.61)	\$ (72.38)
2	-9.30%	\$ (796.50)	\$ (66.37)
3	-8.25%	\$ (755.38)	\$ (62.95)
4	-8.65%	\$ (717.61)	\$ (59.80)
5	-8.61%	\$ (683.66)	\$ (56.97)
6	-7.91%	\$ (579.14)	\$ (48.26)
7	-7.66%	\$ (544.73)	\$ (45.39)
8	-7.89%	\$ (484.15)	\$ (40.35)
9	-7.16%	\$ (464.03)	\$ (38.67)
10	-6.55%	\$ (454.14)	\$ (37.85)
11	-6.54%	\$ (363.16)	\$ (30.26)
12	-6.02%	\$ (345.11)	\$ (28.76)
13	-6.27%	\$ (311.58)	\$ (25.97)
14	-6.45%	\$ (309.89)	\$ (25.82)
15	-6.04%	\$ (301.78)	\$ (25.15)

Rank	Increase %	Annual \$	Monthly \$
1	4.15%	\$ 91.14	\$ 7.59
2	4.77%	\$ 89.57	\$ 7.46
3	3.81%	\$ 83.51	\$ 6.96
4	3.33%	\$ 81.47	\$ 6.79
5	5.78%	\$ 80.02	\$ 6.67
6	4.68%	\$ 79.59	\$ 6.63
7	3.89%	\$ 78.38	\$ 6.53
8	4.29%	\$ 78.17	\$ 6.51
9	4.37%	\$ 75.50	\$ 6.29
10	3.77%	\$ 74.37	\$ 6.20
11	3.25%	\$ 74.35	\$ 6.20
12	3.47%	\$ 73.89	\$ 6.16
13	3.83%	\$ 72.39	\$ 6.03
14	3.53%	\$ 72.38	\$ 6.03
15	4.49%	\$ 72.20	\$ 6.02

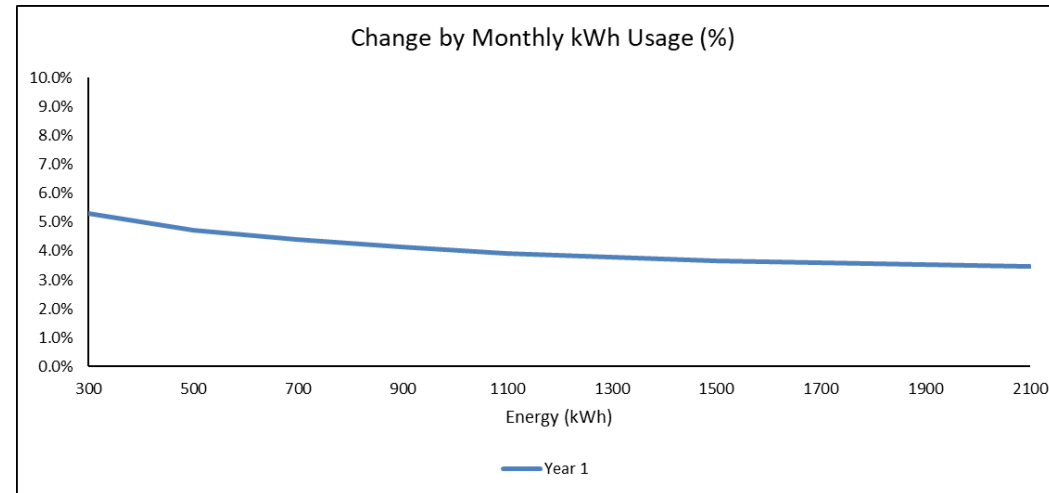
Residential Time-of-Day Rate (Full TOD Effects)

Rank	Decrease %	Annual \$	Monthly \$
1	-15.30%	\$ (1,191.15)	\$ (99.26)
2	-11.95%	\$ (1,023.42)	\$ (85.29)
3	-10.27%	\$ (851.94)	\$ (70.99)
4	-10.49%	\$ (833.26)	\$ (69.44)
5	-8.27%	\$ (757.65)	\$ (63.14)
6	-10.89%	\$ (668.02)	\$ (55.67)
7	-9.11%	\$ (667.58)	\$ (55.63)
8	-8.64%	\$ (614.82)	\$ (51.23)
9	-8.09%	\$ (524.36)	\$ (43.70)
10	-8.00%	\$ (443.97)	\$ (37.00)
11	-9.13%	\$ (438.17)	\$ (36.51)
12	-8.64%	\$ (429.09)	\$ (35.76)
13	-8.61%	\$ (412.53)	\$ (34.38)
14	-8.53%	\$ (401.17)	\$ (33.43)
15	-9.17%	\$ (396.02)	\$ (33.00)

Rank	Increase %	Annual \$	Monthly \$
1	9.15%	\$ 200.73	\$ 16.73
2	6.71%	\$ 187.28	\$ 15.61
3	7.01%	\$ 171.50	\$ 14.29
4	7.42%	\$ 163.03	\$ 13.59
5	10.93%	\$ 151.28	\$ 12.61
6	6.50%	\$ 148.70	\$ 12.39
7	7.74%	\$ 145.32	\$ 12.11
8	5.00%	\$ 144.81	\$ 12.07
9	8.33%	\$ 141.63	\$ 11.80
10	6.98%	\$ 140.74	\$ 11.73
11	5.76%	\$ 139.12	\$ 11.59
12	7.01%	\$ 136.74	\$ 11.40
13	6.22%	\$ 131.46	\$ 10.95
14	10.09%	\$ 127.50	\$ 10.63
15	5.33%	\$ 127.21	\$ 10.60

Sample Residential Rate Opt-Out Rate

Rates	Current	Year 1
Monthly Facilities Charge:		
All Customers	\$ 20.00	\$ 22.00
Capacity/Transmission Charge:		
Block 1 (0 - 657 kWh)	\$ 0.05619	\$ 0.06700
Block 2 (658 - 835 kWh)	\$ 0.06928	\$ 0.08009
Block 3 (Excess)	\$ 0.09445	\$ 0.10526
Distribution Charge:		
All Energy	\$ 0.06561	\$ 0.06195
Energy Charge:		
All Energy	\$ 0.08393	\$ 0.07903
Adjustments:		
Power Adjustment	\$ (0.00490)	\$ -
NYPA Credit	\$ (0.02500)	\$ (0.02500)
Hot Water Credit	\$ (10.00)	\$ (10.00)
Underground Charge:		
Annual Total	\$ 257,911.66	\$ 268,719.21
Revenue from Rate	\$ 17,452,022	\$ 18,150,103
Change from Previous		4.0%



	Monthly Change	
kWh		Year 1
300	\$	4.21
500	\$	5.66
700	\$	7.11
Average	\$	8.56
1100	\$	10.01
1300	\$	11.47
1500	\$	12.92

Questions?



Time Period Development (TOD)

Set Up TOU Periods													
Hour Ending	Period												
	1	2	3	4	5	6	7	8	9	10	11	12	
1.0	0	0	0	0	0	0	0	0	0	0	0	0	0
2.0	0	0	0	0	0	0	0	0	0	0	0	0	0
3.0	0	0	0	0	0	0	0	0	0	0	0	0	0
4.0	0	0	0	0	0	0	0	0	0	0	0	0	0
5.0	0	0	0	0	0	0	0	0	0	0	0	0	0
6.0	0	0	0	0	0	0	0	0	0	0	0	0	0
7.0	0	0	0	0	0	0	0	0	0	0	0	0	0
8.0	0	0	0	0	0	0	0	0	0	0	0	0	0
9.0	0	0	0	0	0	0	0	0	0	0	0	0	0
10.0	0	0	1	1	0	0	0	0	0	1	1	0	0
11.0	0	0	1	1	0	0	0	0	0	1	1	0	0
12.0	0	0	1	1	0	0	0	0	0	1	1	0	0
13.0	1	1	1	1	1	1	1	1	1	1	1	1	1
14.0	1	1	1	1	1	1	1	1	1	1	1	1	1
15.0	1	1	1	1	1	1	1	1	1	1	1	1	1
16.0	2	2	1	1	2	2	2	2	2	1	1	2	2
17.0	2	2	1	1	2	2	2	2	2	1	1	2	2
18.0	2	2	1	1	2	2	2	2	2	1	1	2	2
19.0	2	2	1	1	2	2	2	2	2	1	1	2	2
20.0	1	1	1	1	1	1	1	1	1	1	1	1	1
21.0	0	0	1	1	0	0	0	0	0	1	1	0	0
22.0	0	0	0	0	0	0	0	0	0	0	0	0	0
23.0	0	0	0	0	0	0	0	0	0	0	0	0	0
24.0	0	0	0	0	0	0	0	0	0	0	0	0	0
Off-Peak			0										
On-Peak			1										
Critical-Peak			2										

Time Period Development (TOD) – Coincidence Probability

Transmission Coincident Peak Hour Ending (CP ^{Trans} HE)																
CP ^{Trans}	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
S	0	0	0	0	0	0	0	0	0	6	5	26	3	0	0	0
S Probability	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%	13%	65%	8%	0%	0%	0%
W	0	0	0	0	1	1	2	0	0	0	1	8	5	2	0	0
W Probability	0%	0%	0%	0%	5%	5%	10%	0%	0%	0%	5%	40%	25%	10%	0%	0%
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Probability	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Probability	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
All	0	0	0	0	1	1	2	0	0	6	6	34	8	2	0	0
All Probability	0%	0%	0%	0%	2%	2%	3%	0%	0%	10%	10%	57%	13%	3%	0%	0%
Resource Adequacy/Capacity Coincident Peak Hour Ending (CP ^{RA} HE)																
CP ^{RA}	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
S	0	0	0	0	0	0	0	0	0	12	12	36	0	0	0	0
S Probability	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	20%	60%	0%	0%	0%	0%
W	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
W Probability	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Probability	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4 Probability	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
All	0	0	0	0	0	0	0	0	0	12	12	36	0	0	0	0
All Probability	0%	0%	0%	0%	0%	0%	0%	0%	0%	20%	20%	60%	0%	0%	0%	0%

Debt Coverage Ratio (no rate change)

Description	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030
Debt Coverage Ratio					
Net Income	\$ 5,484,197	\$ 5,205,872	\$ 5,398,882	\$ 5,093,376	\$ 4,880,675
Add Depreciation/Amortization Expense	2,808,999	2,852,532	3,134,482	3,413,011	3,494,248
Add Interest Expense	15,688	3,750	-	-	-
Cash Generated from Operations	\$ 8,308,883	\$ 8,062,154	\$ 8,533,364	\$ 8,506,387	\$ 8,374,924
Debt Principal and Interest	\$ 500,688	\$ 303,750	\$ -	\$ -	\$ -
Projected Debt Coverage Ratio (Covenants)	16.59	26.54	N/A	N/A	N/A
Minimum Debt Coverage Ratio	1.4	1.4	1.4	1.4	1.4

Minimum Cash Reserves (no rate change)

Description	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030
Minimum Cash Reserve Allocation					
Operation & Maintenance Less Depreciation Expense	12.3%	12.3%	12.3%	12.3%	12.3%
Purchase Power Expense	11.3%	11.3%	11.3%	11.3%	11.3%
Historical Rate Base	1%	1%	1%	1%	1%
Energy Exposure	20%	20%	20%	20%	20%
Current Portion of Debt Service Payment	99%	99%	99%	99%	99%
Five Year Capital Improvements - Net of bond proceeds	20%	20%	20%	20%	20%
% Plant Depreciated	45%	47%	45%	47%	49%
Calculated Minimum Cash Level					
Operation & Maintenance Less Depreciation Expense	\$ 1,078,039	\$ 1,110,381	\$ 1,143,692	\$ 1,178,003	\$ 1,213,343
Purchase Power Expense	2,683,129	2,756,005	2,786,141	2,837,380	2,912,510
Historical Rate Base	958,998	980,764	1,099,972	1,120,029	1,140,591
Energy Exposure	1,867,492	1,918,215	1,939,190	1,974,853	2,027,145
Current Portion of Debt Service Reserve	496,938	301,475	-	-	-
Five Year Capital Improvements - Net of bond proceeds	5,226,364	5,226,364	5,226,364	5,226,364	5,226,364
Minimum Cash Reserve Levels	\$ 12,310,960	\$ 12,293,205	\$ 12,195,360	\$ 12,336,630	\$ 12,519,953
Projected Cash Reserves	\$ 14,255,149	\$ 19,836,880	\$ 16,449,438	\$ 22,950,179	\$ 29,268,875

Target Operating Income (no rate change)

Description	Projected 2026	Projected 2027	Projected 2028	Projected 2029	Projected 2030
Optimal Operating Income Determinants					
Net Book Value/Working Capital	\$ 52,760,895	\$ 52,085,035	\$ 60,871,359	\$ 59,463,994	\$ 58,025,974
Outstanding Principal on Debt	300,000	-	-	-	-
System Equity	\$ 52,460,895	\$ 52,085,035	\$ 60,871,359	\$ 59,463,994	\$ 58,025,974
Debt:Equity Ratio	1%	0%	0%	0%	0%
Optimal Operating Income Allocation					
Interest on Debt	5.23%	0.00%	0.00%	0.00%	0.00%
System Equity	10.27%	10.64%	10.21%	10.64%	11.10%
Optimal Operating Income					
Interest on Debt	\$ 15,688	\$ 3,750	\$ -	\$ -	\$ -
System Equity	\$ 5,386,165	\$ 5,539,917	\$ 6,213,272	\$ 6,326,562	\$ 6,442,709
Optimal Operating Income	\$ 5,401,852	\$ 5,543,667	\$ 6,213,272	\$ 6,326,562	\$ 6,442,709
Projected Operating Income	\$ 4,918,709	\$ 5,010,213	\$ 5,151,255	\$ 4,869,407	\$ 4,626,492
Rate of Return in %	10.2%	10.6%	10.2%	10.6%	11.1%

COS Results

Customer Class	Cost of Service	Projected Revenues	Effective % Change
Residential (R-1)	\$ 18,480,057	\$ 17,452,022	5.9%
Residential (RTOU)	43,090	40,600	6.1%
Residential Off-Peak (R-3)	226,755	165,764	36.8%
Residential ER DP DHW (R-7)	81,787	71,936	13.7%
Small General (G-1)	2,802,507	2,568,035	9.1%
Residential Assistance	196,329	75,375	160.5%
Small General ETS	4,479	2,621	70.8%
SGS NM	26,850	26,654	0.7%
SGS Municipal	76,507	64,391	18.8%
Private Area Lighting	2,887	3,961	-27.1%
Municipal Lighting	424,526	56,750	648.1%
Medium General (G-2)	4,351,461	4,662,733	-6.7%
Large General (G-3)	9,311,321	10,138,068	-8.2%
MGS ETS	2,957	448	560.2%
MGS NM	390,249	422,199	-7.6%
LGS NM	357,003	373,442	-4.4%
MGS Municipal	898,217	1,014,781	-11.5%
LGS Municipal	850,652	909,846	-6.5%
Total	\$ 38,532,770	\$ 38,049,626	1.3%



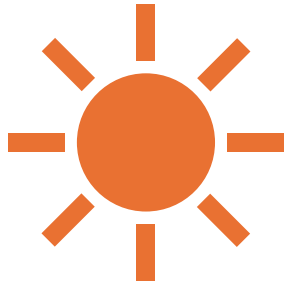
Battery Storage Initiative

Balancing Solar Expansion, System Reliability and Ratepayer Savings

June 2025

[Click here for a recorded version of this presentation.](#)

Competing Interests



Solar expansion /
Clean energy

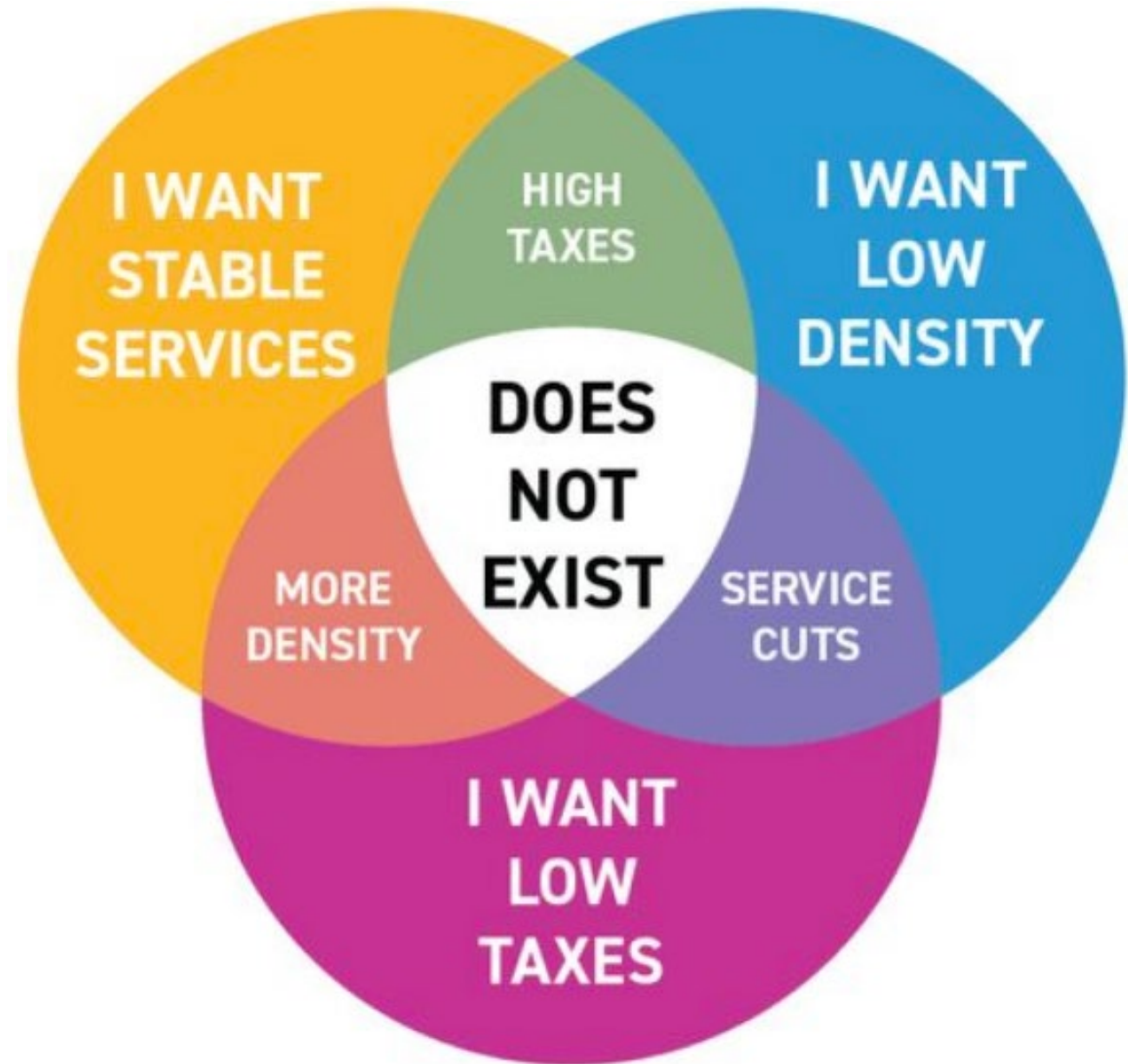


System reliability

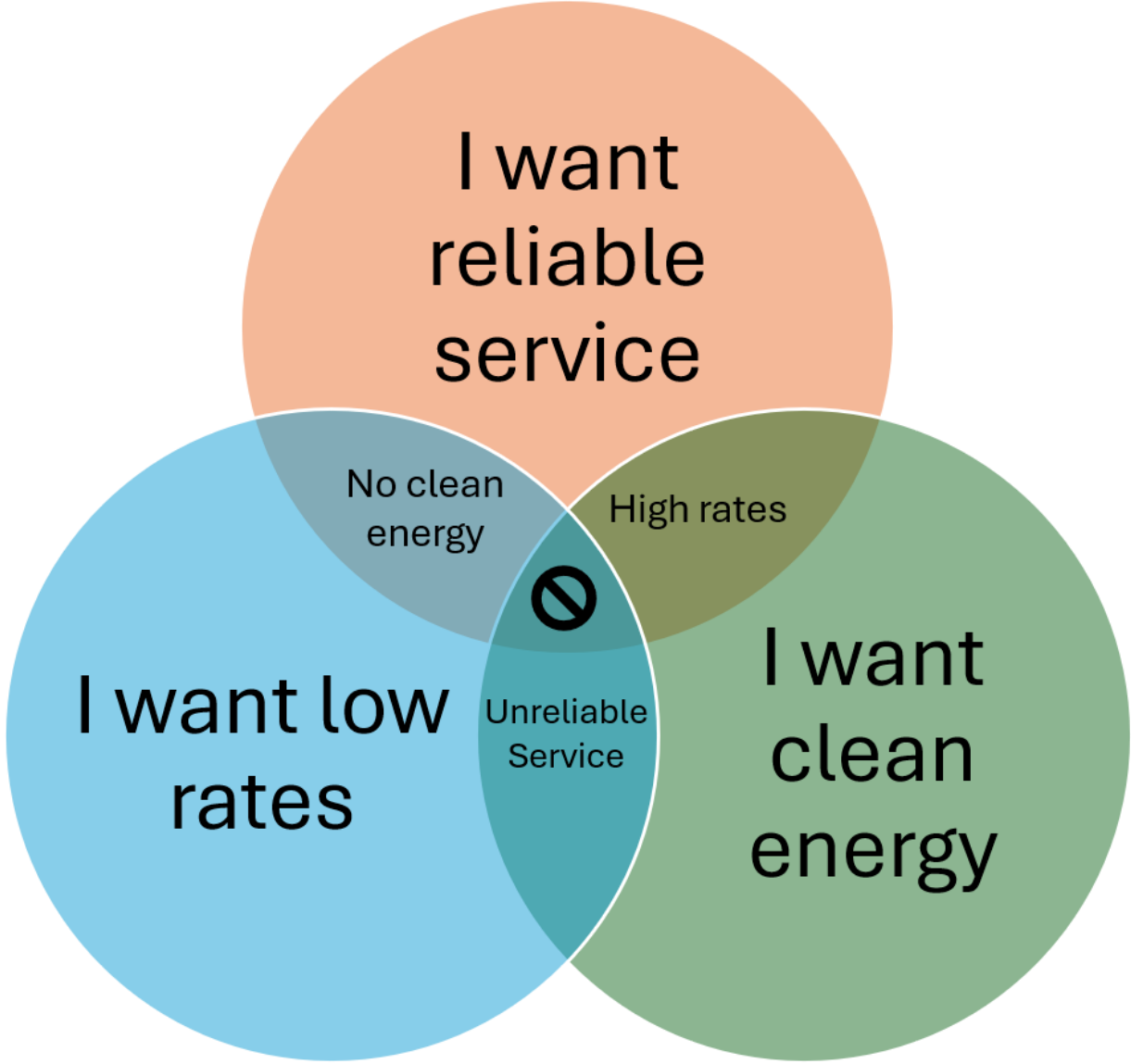


Cost savings for
ratepayers

Example of
interests in
opposition



Electric
Utility
Interests



Concord's
priorities?

Safe & Reliable

Clean

Affordable

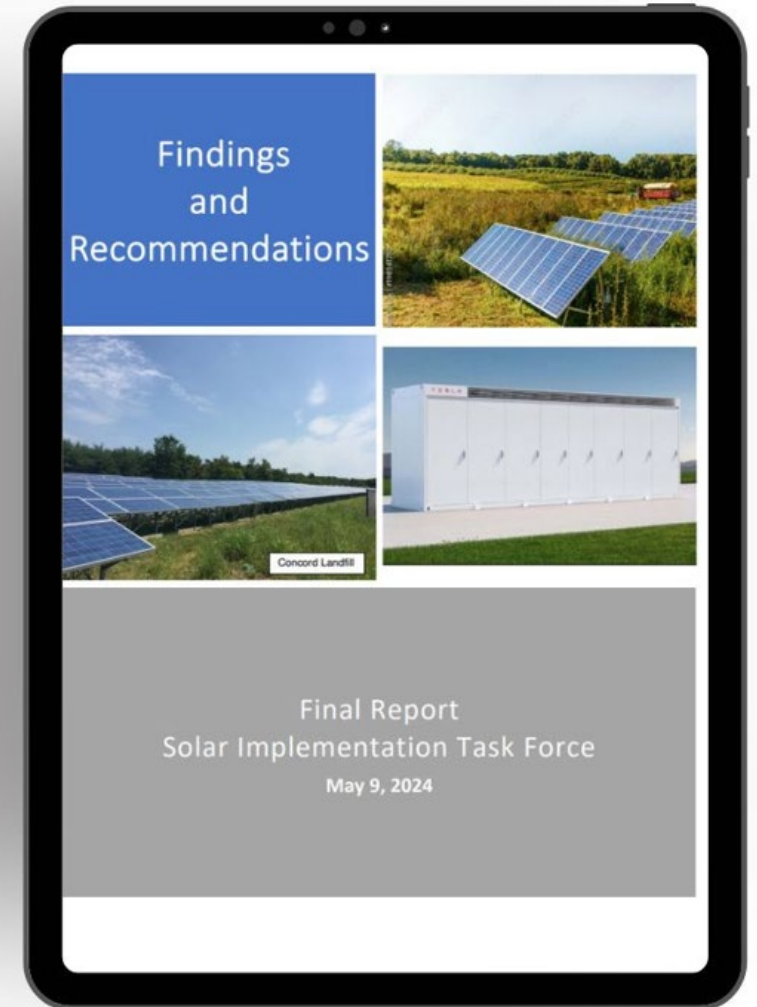
Overall Actions and Progress to Date

- Meetings with solar and battery developers
- Discussions with Engineering firm (PLM) for system impact analysis
- Discussions with an Engineering and construction firm (TRC) on a feasibility study
- Financial modeling and discussions with counsel
- Analysis of procurement methods



Solar Expansion

- Four sites were identified in the Solar Task Force's final report:
 - Landfill
 - CCHS Drainage Basin
 - Agricultural land
 - Wastewater filter beds





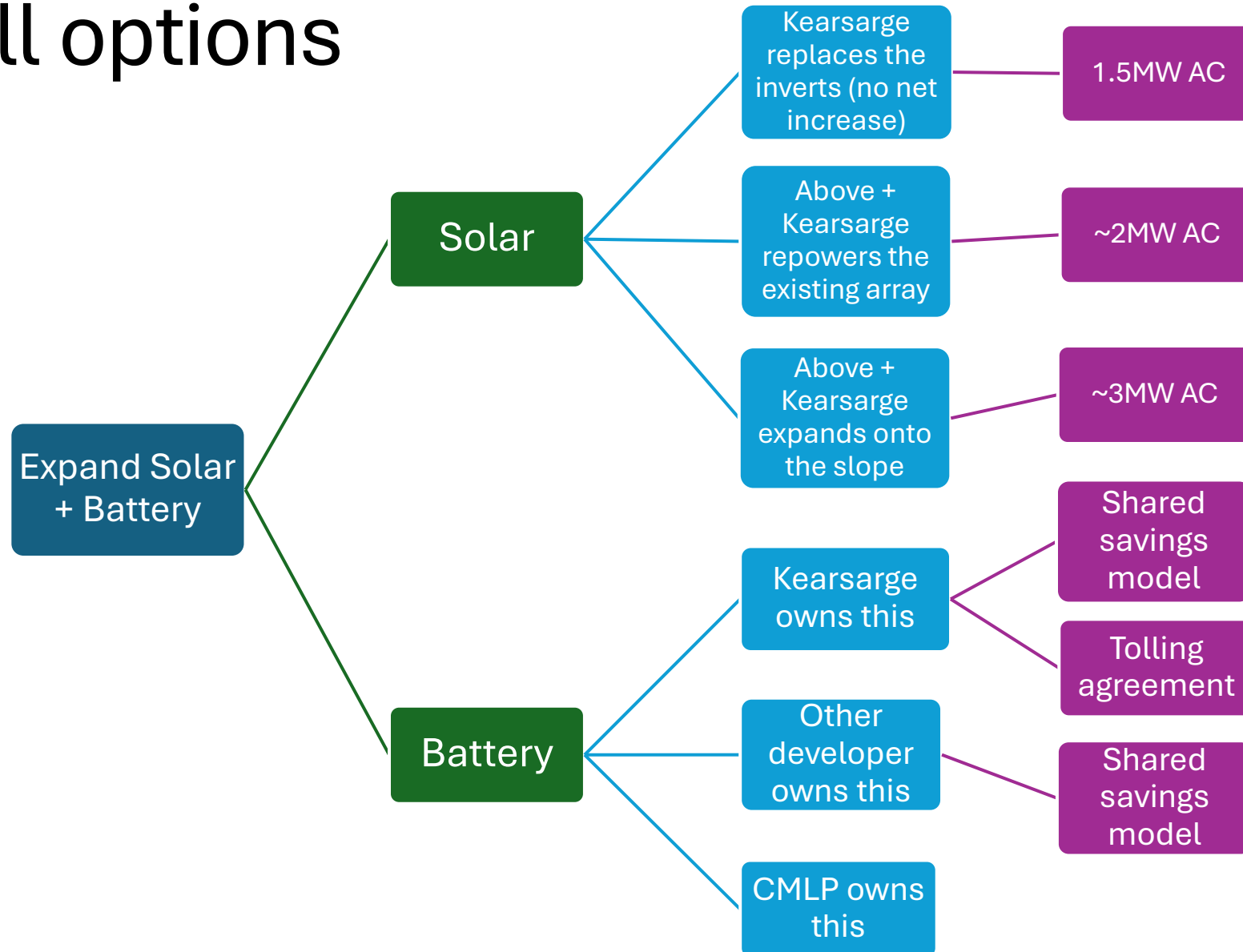


Cellular Leased
Area

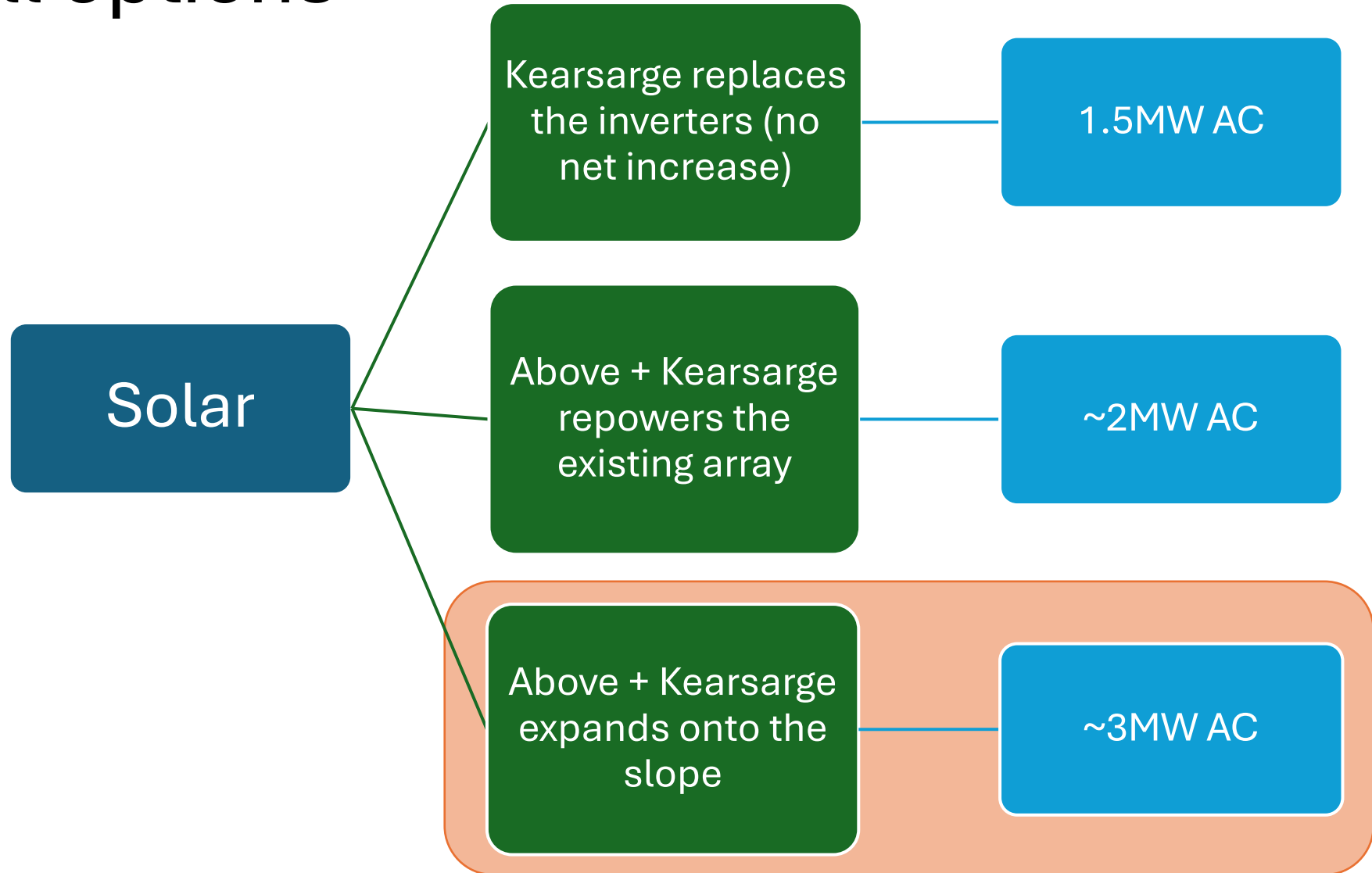


Possible battery
area

Landfill options



Landfill options



Shared Savings vs. Tolling vs. Ownership



Shared savings: Battery developer pays for the battery installation. They dispatch the battery to shave peaks. We split the capacity and transmission savings at the ratio specified in the agreement.

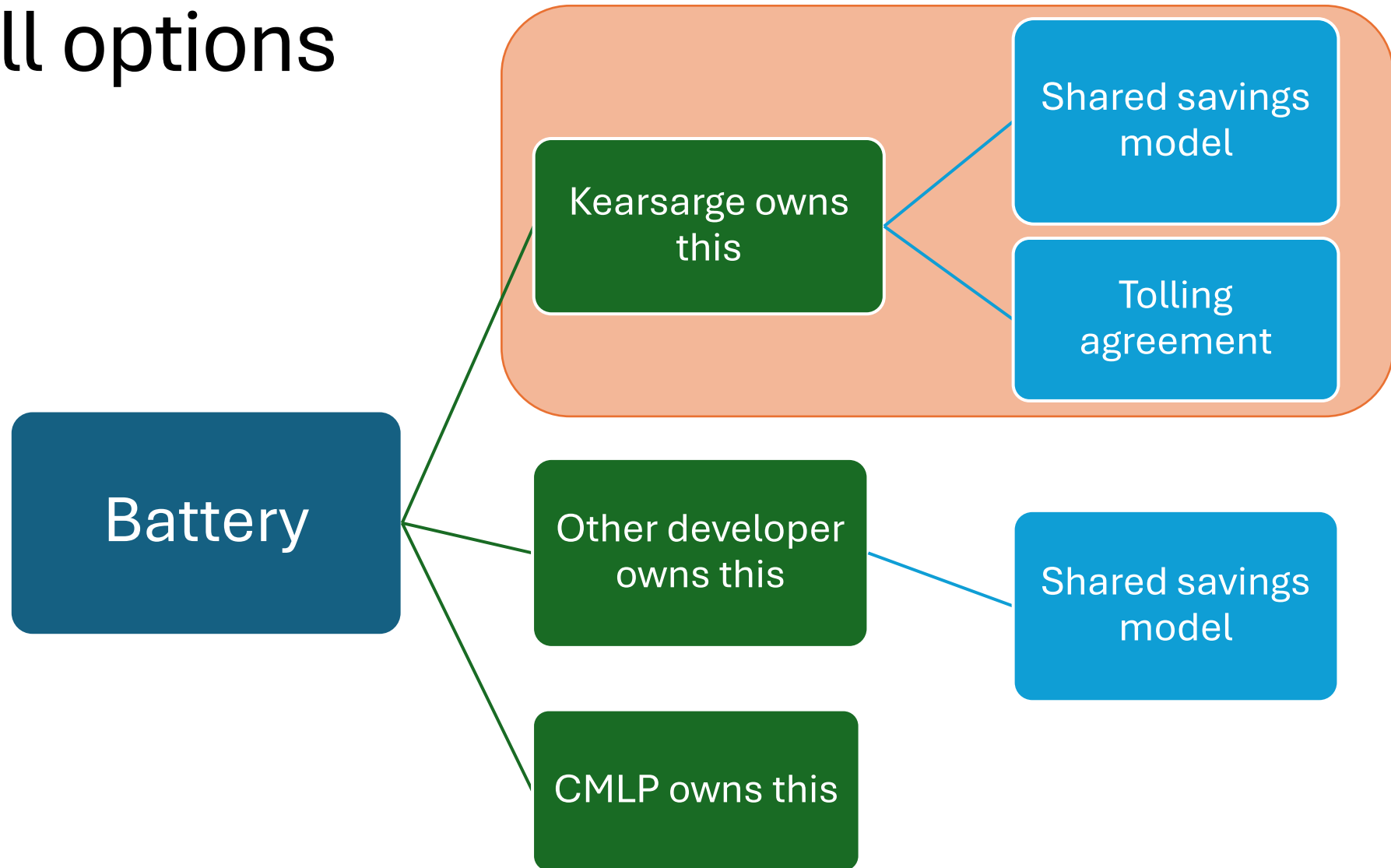


Tolling: Battery developer pays for the battery installation. They turn over complete control of the battery to CMLP for a fixed cost, usually with an annual escalator.



Ownership: CMLP pays for the battery installation. We achieve 100% of peak shaving savings, but we take on 100% of the liability if we miss peaks.

Landfill options



Kearsarge – Shared Savings

Pros	Cons
No up-front capital	Lower shared savings split
Will curtail the solar in excess of 2MW for 2 years	After solar curtailment, peak shaving will be their priority
Low liability for ratepayers (only on the hook if we cause them to miss the peak)	Shared savings model limits what CMLP could do with the battery
Same vendor as the solar equals simpler logistics	

Kearsarge – Tolling

Pros	Cons
No up-front capital	Mandatory payment whether or not we hit the peak
Can use the battery to address solar concerns first, and then for peak shaving afterward	More involved battery management for CMLP
	If the ISO cost allocation methodology changes or if battery proliferation makes hitting the peak difficult or impossible, we continue to pay a fixed charge

Other vendor – Shared Savings

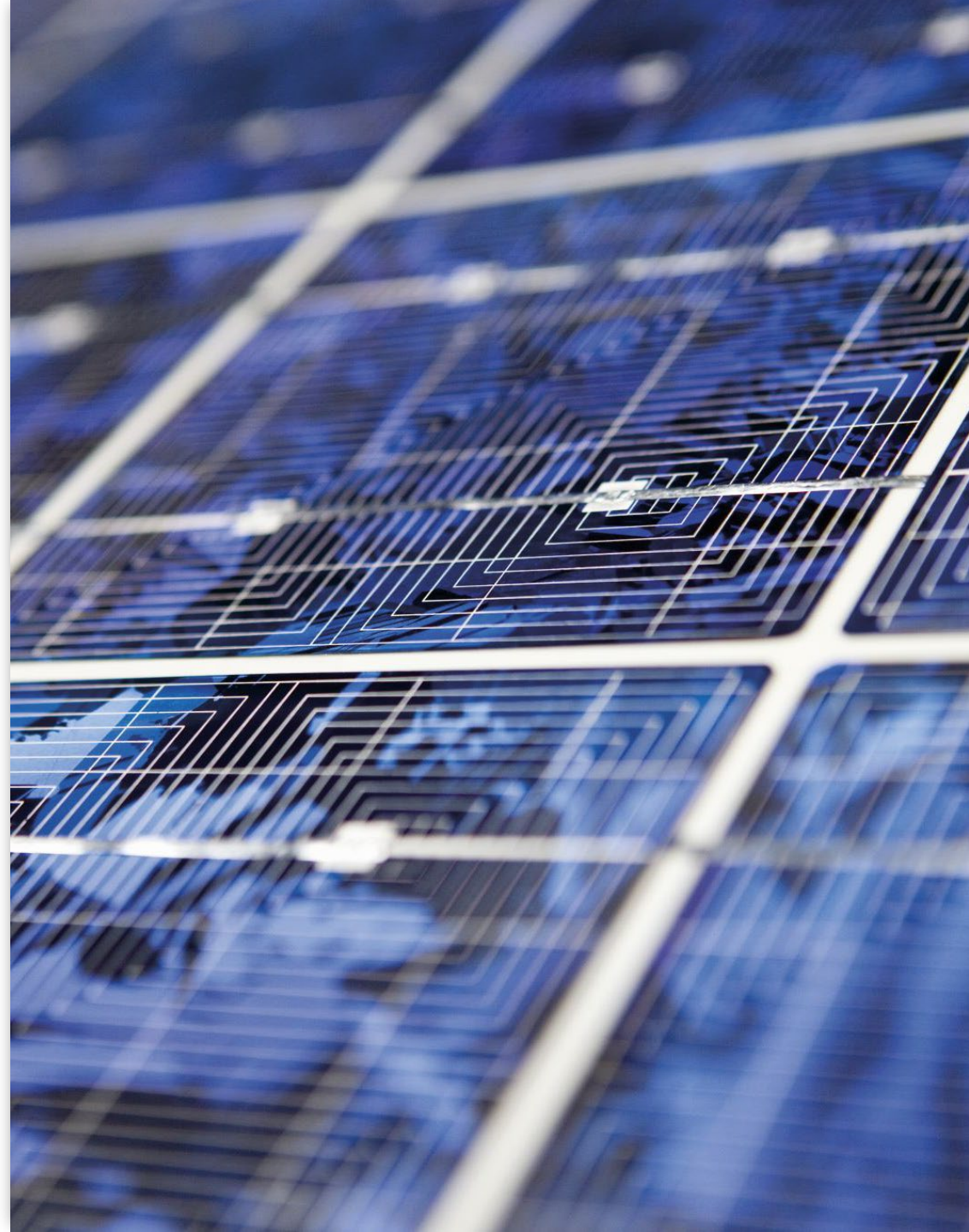
Pros	Cons
No up-front capital	Peak shaving will be the #1 priority; fewer controls to ensure reliability
CMLP receives a larger portion of the shared savings	More involved battery management for CMLP
More reliable peak identification	Different vendor from solar could lead to challenges

Landfill – CMLP Ownership

Pros	Cons
CMLP receives 100% of the proceeds from peak shaving	Large up-front capital
Can use the battery to address solar/reliability concerns first, and then for peak shaving afterward	Potential for large liability for ratepayers if peak shaving changes or we miss peaks
	More hands-on management from staff

Other Considerations

- When will SCADA be deployed and operational; can we have a battery/solar COD prior to that?
- What emergency battery/solar curtailment methods could address the impact of a battery on system stability?
- Can other developers absorb some solar to get a better shared savings split while also limiting exports at 2MW?



Next Steps



We have a meeting later this week to determine if a 3rd-party developer can curtail the solar.



We have a meeting later this week with a *second* 3rd-party developer to compare models and savings splits.



We continue to work with Engineering and Operations to find ways to move this project along while addressing safety and reliability concerns.



We continue to explore replacement of relays and the ability to push power past our substation.



Shared Savings vs. Ownership Model

	Shared Savings	Ownership
Good	Lose less if no peak	Flexibility (of uses)
	No up-front capital/debt	More money from peak shaving
	Lower impact on CMLP	Better borrowing rate
Bad	Not as flexible	Lose more money
	Less money for peak shaving	Up-front capital/debt
	May have to pay if we cause them to miss a peak	More complicated