



CITY LIGHT REVIEW PANEL MEETING

Wednesday, January 18, 2023

9:00 – 11:00 A.M.

SMT 2821

—or—

Microsoft Teams Meeting

Proposed Agenda

- | <u>Item</u> | <u>Lead</u> |
|---|---------------------------|
| 1. Welcome (5 min.) | Mikel Hansen, Panel Chair |
| 2. Public Comment (5 min.) | |
| 3. Standing Items: (25 min.) | |
| a. Chair's Report (Mikel) | |
| b. Review of agenda (Julie Ryan) | |
| i. Panel Role and Responsibilities | |
| c. Action: Review and approval of meeting minutes of November 22, 2022 | |
| d. Communications to Panel (Leigh Barreca) | |
| 4. General Manager Update (25 min.) | Debra Smith |
| 5. Strategic Plan Progress | |
| a. Strategic Priority: Ensure Financial Health & Affordability | Kirsty Grainger |
| i. Debt Strategy continued (45 min.) | |
| ii. Q&A (15 min.) | |
| 6. Adjourn | |

<Social time 11:00 – 12:00>

Next Meeting: Wednesday, February 15, 2023



**City Light Review Panel Meeting
Meeting Minutes**

**Date of Meeting: November 22, 2022 | 9:00 – 11:00 AM |
Meeting held in SMT 3517 and via Microsoft Teams “Draft”**

MEETING ATTENDANCE					
Panel Members:					
Names		Name		Name	
Anne Ayre		Leo Lam	√	John Putz	√
Mikel Hansen	√	Kerry Meade	√	Tim Skeel	
Scott Haskins	√	Joel Paisner	√	Michelle Mitchell-Brannon	
Staff and Others:					
Debra Smith	√	Jen Chan	√	Karen Reed (Consultant /RP Facilitator)	√
Kirsty Grainger	√	Mike Haynes	√	Craig Smith	√
Jim Baggs		DaVonna Johnson		Michelle Vargo	√
Kalyana Kakani	√	Emeka Anyanwu	√	Maura Brueger	√
Julie Moore	√	Chris Ruffini	√	Chris Tantoco	√
Greg Shiring	√	Carsten Croff	√	Leigh Barreca	√
Eric McConaghy		Caia Caldwell	√	Angela Bertrand	√
Julie Ryan (Incoming Consultant /Facilitator)	√	Robert Shelley (Piper Sandler)	√	Brian Taubeneck	√
		Charlee Thompson (NVEC)	√	Tyson Titensor (Citizen)	√

Welcome and Introductions. The meeting was called to order at 9:02 a.m.

Public Comment. There was no public comment.

Standing Items:

Review Agenda. Karen Reed reviewed the agenda and offered some parting words of thanks to the Panel and SCL at this, her final meeting as Panel facilitator

Approval of Oct. 25, 2022, Meeting Minutes. Minutes were approved as presented.

Chair’s Report. Mikel Hansen introduced the newly selected Panel facilitator, Julie Ryan and thanked our current chair Karen Reed for her 12 years of service to the Panel. Julie will begin at the January 2023 meeting.

The panel expressed thanks to Karen.

Communications to Panel. Leigh Barreca reported that no emails were received. She also shared that the December meeting will be cancelled, and presentations scheduled for December will be



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covered in subsequent month. Julie Ryan will be in attendance (in-person) at the January meeting. We have scheduled a little extra time for socializing and meeting Julie. Refreshments will be provided. Finally, as was done last year, Leigh would like to schedule check ins with each panel member. Julie will also be present at these. Leigh asked Panel members to keep an eye out for an email about these meetings.

General Manager's update.

Debra Smith shared gratitude for hard work being done by the SCL team across the utility including around partnerships, emergency management, and grant opportunities.

1. Employee Culture Survey – The survey launched 11/9. This is an opportunity for employees to share ideas and constructive opinions, on what it's like to work for City Light, and offer suggestions for changes. SCL last completed this survey, facilitated by a third party, in fall 2019. It is intended to be conducted every other year but was delayed due to the pandemic. The data will be compiled, shared, and used to guide changes across the organization. The last survey was fielded in 2019 (paused the survey during the pandemic) and more than 70% of employees shared their feedback at that time.
2. COVID arrearage funds - SCL signed a contract with the Department of Commerce to receive \$8.8 million in one-time Washington State COVID arrears funds. A total of \$100 million was allocated statewide to utilities to help low-income customers and those on rate-payer assistance to pay past due balances accrued during COVID. Funds must be applied to eligible customer accounts by Dec. 31, 2022. SCL will prioritize applying funds to customers with eligible debt who have received LIHEAP or participated in the Utility Discount Program, Emergency Bill Assistance Program, and Project Share, followed by customers on payment plans. SCL is coordinating with SPU to ensure alignment on our allocation approach (SPU received a separate award).
3. JD Power Rating - Last week, Seattle City Light was recognized as the #1 West Midsize Utility in JD Power's Electric Utility Business Customer Satisfaction Survey for the 3rd year in a row. Overall satisfaction is examined across six factors (listed in order of importance): power quality and reliability; price; billing and payment; corporate citizenship; customer contact; and communications. City Light ranked the highest in power quality and reliability as well as price. Credit goes to our Business Customer Services team that provides concierge service to these key customers as well as staff across the utility who work hard to keep rates affordable, ensure reliable service, and when the unexpected power outage occurs, work diligently until power is restored
4. Partnerships for Renewables and Resiliency - City Light is partnering with experts at the National Renewable Energy Lab (NREL) on a project recently awarded a \$1 million grant by the US Department of Energy, part of a \$43 million initiative designed to support the clean energy transition in communities known as Renewables Advancing Community Energy Resilience (RACER). The team is comprised of SCL, Office of Sustainability & Environment, and Seattle Department of Construction & Inspections staff along with researchers from the National



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Renewable Energy Laboratory, the University of Washington, and the University of Buffalo. The team will use emerging planning approaches developed at national labs to create a first-of-its-kind equity-informed resilience tool to help determine the social benefits of renewable-based resilience investments in South Seattle. City Light and other City staff will also leverage the relationships and direct community engagement that has been at the heart of the City's efforts in the Duwamish Valley to ensure the partnership and perspective of these historically underserved communities.

5. Franchise Cities - On Nov. 3, SCL held its annual Franchise City Forum. The agenda included updates on the City Light Strategic Plan, rate increases and coming TOD rates, emergency management, and cyber security. We also followed up on action items from previous discussions:
 - a. To improve communication between SCL staff and franchise city inspectors, we have been holding monthly internal meetings focused on franchise cities to bring awareness and brainstorm solutions, plus meeting with franchise cities to resolve and overcome issues.
 - b. City Light was asked to expand plan review in franchise cities, so City Light does an initial review of building plans prior to issuance of city permits, not after. Following a 2022 pilot with the City of Burien in, we are preparing a proposal to ask for additional resources so we can expand to all cities.

Debra shared that SCL vacancy rate (currently slightly above 13%) and supply chain disruptions (18-24 months for transformers) are contributing to engineer assignments and work completion delays.

Strategic Plan. Leigh introduced the Strategic Plan status topic. The Q3 Status report and financial health presentation are in the meeting packet. Kirsty Grainger and Craig Smith presented a deeper dive into the Future Financial Health & Affordability.

Q: Does the accountability extend to performance of planned work, in addition to financial performance?

A: Yes, that is the intent-- we are starting with Org Managers (people managers) this year, and in 2023 we will be rolling out tools to improve accountability for project managers, who would be the ones leading execution of planned work.

Carsten Croff and Rob Shelley from Piper Sandler presented on City Light's debt strategy.

Q: I noticed there aren't any AAA rated utilities. Are there reasons for that? What is the ideal rating? Also, the 'cushion' you're creating relates not only to policy, but also money left in the rate payer's pocket. This tells a good story for City Light. How do you factor in having money that doesn't go to the ratepayer that you have financial policy constraining you?

A: For ratings it would be tough for utilities to get a AAA rating. One of the stronger rated utilities, San Antonio, has recently had their rating dropped to below SCL in part due to impacts from their winter storm. There are a bunch of different investments that utilities need to make to



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fixed assets. SCL's rating is very good and results in a very favorable borrowing cost.

The benefit to rate payers is the balance you're trying to strike. Favorable borrowing cost is a benefit to rate payers. The difference in borrowing cost for City Light bought us access to funds in a volatile market. Some entities would be shut out of the market in times of stress.

Q: I'm not clear on investments that are made to grow future revenues. You are not growing your future revenues and your fixed asset line going up and up. I'm wondering how you know you made the right amount of capital investment if revenue isn't growing.

A: One of the things Kirsty talked about is our increasing customer count. We need new assets to support a growing number of customers. We're also replacing older assets that are at the end of their life. Replacements costs are much more than the initial asset cost, which is also driving up the asset line on the chart. Our dense urban service territory leads to higher costs for our distribution infrastructure.

Due to time constraints, this conversation on debt strategy will be continued in January.

Adjourn: Meeting adjourned at 11:01 a.m.

Next meeting: Jan. 22, 2022, 9:00 – 11:00 a.m. with an optional social time from 11:00 – 12:00. There will be both virtual and In-person meeting options.

SEATTLE CITY LIGHT REVIEW PANEL CHARTER

Originally adopted June 12, 2010; amended October 13, 2015, and June 25, 2019.

The Seattle City Light Review Panel, created by City Ordinance 123256, as amended by Ordinance 124740, adopts the following Charter to guide the Panel's operations and decision-making processes, consistent with the authority and responsibility granted to the Review Panel by the creating ordinances.

1. RESPONSIBILITIES OF REVIEW PANEL. The Review Panel shall be generally responsible for providing advice and recommendations to the Mayor and City Council on the City Light strategic plan and City Light's rates. Specifically, per City Ordinances 123256 and 124740, the Panel shall:
 - A. Review and assess City Light's strategic plan and provide an opinion on the merits of the plan and future revisions to it. The strategic plan will at a minimum consider long term strategies to rehabilitate and maintain City Light's infrastructure, provide for labor-force continuity, maintain a portfolio of resources adequate to meet the needs of its customers, and ensure continued regulatory compliance.
 - B. Advise the Council as to other issues that should be included as part of City Light's strategic planning framework, in addition to those issues outlined in item 1.A.
 - C. Assist the Mayor and Council in engaging rate payers in discussions of the merits and implications of the strategic plan and revisions thereto.
 - D. Review changes to City Light's rates not already authorized by the Seattle Municipal Code and provide an opinion on the adequacy and prudence of such rate changes in light of adopted planning assumptions and financial policies.
 - E. After the adoption of each update to the strategic plan, work closely with staff designated by the Mayor and the Council to propose, in writing, a biennial work program to the Mayor and Council. Work program items may include, but are not limited to, financial policies, cost allocation, rate design, operational efficiency, issues requests by the Mayor or the Council, and issues the Panel believes the Mayor and the Council should consider.

- F. Provide the Mayor and the Council with analysis and recommendations on significant elements of the strategic plan including, but not limited to financial policies, cost allocation, rate design, and operational efficiency. Any such recommendations shall be submitted to the Mayor and Council; in the event a collective recommendation cannot be reached, the Review Panel shall submit a recommendation indicating the majority and minority positions and the rationales for those positions.

2. MEMBERSHIP.

- A. SIZE OF REVIEW PANEL. The Review Panel shall consist of nine (9) members drawn from among City Light's customers, occupying numbered positions #1 through #9, with qualifications for each numbered position as described in City Ordinance 123256.
- B. SELECTION OF REVIEW PANEL. Per Ordinance 123256, the Mayor shall appoint the odd-numbered positions (1,3,5,7,9) and the Council shall appoint the even-numbered positions (2,4,6,8). All Panel Members shall be confirmed by the City Council.
- C. TERMS OF REVIEW PANEL MEMBERS. Appointments to the Review Panel shall be in general for three years, except that at the Panel's inception, Positions 1, 2 and 3 shall be appointed for a one-year term, and Positions 4, 5 and 6 shall be appointed for a two-year term. A member whose term has expired will continue to serve until a successor has been confirmed by Council.
- D. RESIGNATION. Any member of the Review Panel may resign at any time by delivering written notice to the Mayor, City Council, Chair and Vice-Chair of the Review Panel. A resignation shall be effective when the notice is delivered unless the notice specifies a later date.
- E. DISMISSAL. Any member of the Review Panel may be removed from the Review Panel by the majority vote of the Panel for three consecutive unexplained absences. The Panel must advise the Member to be dismissed, the Council and the Mayor in writing at least five days before taking the action.
- F. APPOINTMENT OF REPLACEMENT MEMBER. Upon the dismissal, resignation or incapacity of a Member of the Panel, the appointing authority for that Position may appoint a replacement to serve the remainder of the Member's term without confirmation by the Council.

- G. APPOINTMENT OF SUBCOMMITTEES. The Review Panel may approve creation of subcommittees composed of less than a quorum of duly appointed and serving Panel Members to provide advice to the Review Panel on specific issues within the scope of the Panel's general responsibilities. Subcommittees shall be governed by the same rules regarding meetings, voting, notice, waiver of notice and quorum as apply to the Review Panel.
3. CHAIR AND VICE CHAIR TERM OF OFFICE. A Chair and Vice-Chair of the Review Panel shall be elected by the members of the Review Panel from the Review Panel membership. The term of the Chair and Vice-Chair shall be for one year commencing on May 1st of each year. The Chair and Vice-Chair shall have the duties set forth in Section 6.
4. COMPENSATION. No compensation shall be paid by City Light for any service as a member of the Review Panel or as its Chair or Vice-Chair. Panel Members will be provided with a parking pass for use in attending Review Panel meetings at City facilities.
5. MEETINGS OF THE REVIEW PANEL.
- A. REGULAR AND SPECIAL MEETINGS. Regular meetings of the Review Panel shall be held at least quarterly at such times and places as may be determined from time to time by the Review Panel. Special meetings of the Review Panel may be held at any time and place, whenever called by the Review Panel Chair. Panel members may participate in meetings via conference call but are encouraged to attend each meeting in person.
- B. NOTICE OF MEETINGS. Notice of all meetings of the Review Panel shall be given by the Review Panel Chair or his/her designee in writing by electronic mail or personal delivery to all Review Panel members at least seven (7) days prior to the date on which the meeting is to be held; Provided, however, three (3) days' notice may be given in the case of a special meeting. Any notice shall specify the date, time and place of the meeting; Provided, however, notice may be waived in writing signed by the person or persons entitled to such notice, whether before or after the time at which the notice is required to be given, shall be equivalent to the giving of such notice.
- C. AGENDAS. Prior to each regularly scheduled meeting, the Review Panel, the Chair shall establish an agenda for the meeting, based on discussion and direction from the Review Panel at the previous Review Panel meeting. At the beginning of the meeting any Review Panel member may request that the Chair add an item to the agenda. The

decision whether to add an item shall be made by the Chair. Agendas will be made available to the Panel Members electronically (by email) at least 3 days prior to the meeting. Staff supporting the Review Panel shall make best efforts to provide all meeting materials to the Panel at least 1 day prior to the meeting date.

- D. QUORUM. A quorum at any meeting shall consist of Review Panel members who represent a simple majority.
- E. PARTICIPATION BY TELEPHONE. Review Panel members may participate in meetings via telephone conference call but are encouraged to attend each meeting in person.
- F. VOTING. The Review Panel shall attempt to make decisions by consensus. Upon request of any member, a vote will be taken, in which case each Review Panel member shall be entitled to cast one vote. Votes may not be made by proxy. A motion will be approved by a simple majority of all votes cast. The minutes shall reflect the votes of each member.
- G. RULES OF ORDER. All meetings of the Review Panel shall be conducted in accordance with the latest edition or revision of Robert's Rules of Order, except as otherwise provided in this Charter.
- H. MEETINGS TO BE PUBLIC. All meetings of the Review Panel shall be open to the public, except that meetings may be closed if Chapter 42.30 RCW [the Open Public Meetings Act] would have allowed it to be closed had the Panel been subject to that law. (See Attachment A).
- I. MINUTES. Summary minutes shall be kept of Review Panel meetings, recording attendance, general discussion items, decisions and votes (where taken). Minutes shall be available to the public.
- J. FINDINGS, REPORTS AND RECOMMENDATIONS. The findings recommendations and reports of the Review Panel shall be made public. At the request of a member dissenting with a recommendation of the Panel, reports of the Review Panel shall include minority reports.
- K. PUBLIC COMMENT. The Review Panel is not required to take public comment at its meetings but may elect to do so at any time. If the Review Panel determines to take

public comment at a meeting, Panel rules for managing such comment shall be as follows:

1. Comments shall be limited to two minutes per person, unless an extension is granted by the Chair.
2. Comments shall be limited to items on the agenda or within the purview of the Panel.
3. Any individual wishing to provide public comment shall sign up on the register provided by staff.
4. Total public comment time shall not exceed 15 minutes unless extended by the Chair.
5. When recognized by the presiding officer, the individual wishing to offer comment shall state the individual's name for the record, and identify the item to which the individual shall speak. At the presiding officer's discretion, this Rule may be waived in the interest of personal safety of the person speaking.
6. Disruptions of Panel meetings are prohibited. Disruptions include but are not limited to the following:
 - a. Failure of a speaker to comply with the allotted time established for the individual speaker's public comment;
 - b. Outbursts from members of the public who have not been recognized by the presiding officer for public comment;
 - c. Comments that are not in compliance with K.2;
 - d. Delaying the orderly conduct or progress of the public comment period, including a failure to respect the process of accommodating individuals who wish to provide public comment;
 - e. Use of an allotted individual comment period for purposeful delay, including remaining silent or engaging in other activity without conveying a discernible message;
 - f. Holding or placement of a banner or sign in meeting room in a way that endangers others or obstructs the free flow of pedestrians or the view of others attending the meeting;
 - g. Behavior that intentionally disrupts, disturbs, or otherwise impedes attendance or participation at a Panel meeting;
 - h. Failure to follow the direction of the Chair or a security official related to disruptions described above.
7. The Chair shall preserve the order and decorum of a Panel meeting at all times. If an individual fails to comply with Rule K.6, any Panel Member or the Facilitator or General Manager may issue an oral or written warning to the individual that the

individual's behavior is out of order. An oral or written warning may be issued based on an individual's prior conduct at a Panel meeting. If the individual continues to engage in activity that violates Rule K.6, the Chair may:

- a. Terminate the individual's comment period;
 - b. Direct security staff to assist an individual to the individual's seat; or
 - c. Direct security staff to remove the individual from the meeting room.
8. Any individual ordered to be removed from a meeting pursuant to Rule K.6 shall be excluded from returning to that same meeting from which the individual was removed.
 9. If an individual fails to comply with the requirements of Rule K.6 over the course of multiple Panel meetings, the Chair may coordinate with building security to exclude the individual from participation in future public comment periods before the Panel, or exclude the individual from attendance at future committee meetings.
 10. The decision of the Chair to impose a sanction or exclusion for disruptive activity may be overruled by a majority vote of those Panel members in attendance either at the meeting where the disruption took place or at the next regularly scheduled Panel meeting.
 11. The enforcement provisions of these rules are in addition to any and all other rules of the City regarding building safety and conduct in city facilities.
 12. It is the responsibility of the presiding officer to maintain order and adjourn any meeting as the presiding officer deems necessary.
 - a. If a meeting is interrupted by any person or by a group or groups of persons so as to render the orderly conduct of the meeting not feasible, and order cannot be restored by the removal of individuals who are interrupting the meeting, the members of the Panel may order the meeting room cleared and continue in session, or may adjourn the meeting and re-convene at another location selected by majority vote of the Panel members present. In such a session, final disposition may be taken only on matters appearing on the agenda. Representatives of the press or other news media, except those participating in the disturbance, shall be allowed to attend any session held pursuant to this Rule K.12.
 - b. The Panel may establish procedures for re-admitting an individual or individuals not responsible for disturbing the orderly conduct of the meeting.
 - c. If a meeting is adjourned due to an interruption, Panel members and staff may leave the meeting room until the meeting is reconvened.
- L. PUBLIC COMMUNICATIONS. Review Panel members may be called on from time to time to comment about the activities of the Panel or on the subject matter under

deliberation. In such communications, Panel members will take care to distinguish official Panel positions from individual member positions.

6. CHAIR OF THE REVIEW PANEL.

A. DUTIES OF CHAIR. The Chair of the Review Panel shall preside at all meetings of the Review Panel and shall have the following responsibilities:

1. Preside at regular and special meetings and may call regular and special meetings of the Review Panel;
2. Select the site and agenda for all meetings;
3. Act as spokesperson for the Review Panel and execute documents on behalf of the Review Panel;
4. Transmit to the Mayor and City Council the various reports and recommendations of the Review Panel; and
5. Such other duties as may be delegated from time to time by the Review Panel.

B. VICE-CHAIR. In the case of the absence or inability of the Chair, the Vice-Chair shall assume the powers and duties of the Chair.

C. ABSENCE OR INABILITY OF CHAIR AND VICE-CHAIR. In the case of the absence or inability of the Chair and Vice-Chair to act, the Review Panel may, from time to time, delegate the powers and duties of the Chair to any other Review Panel member.

D. VACANCY. Any vacancy in the post of Chair or Vice-Chair of the Review Panel may be filled by the Review Panel upon a vote taken at the meeting following the meeting at which nominations to fill such vacancy are made.

7. STAFFING AND SUPPORT FOR THE PANEL.

A. The Executive shall provide logistical and staff support to the Panel and each year, funding for the Review Panel shall be determined by the Office of the Mayor in consultation with City Light and the City Budget Office.

B. City Light shall make all reasonable efforts to address Review Panel requests for information or analysis pertinent to the issues under consideration by the Panel and to do so in a timely manner.

- C. Staff designated to provide support to the Review Panel shall be responsible for the maintenance and circulation of the minutes and agendas of the meetings of the Review Panel, maintenance of the Review Panel website, and preparation and mailing or delivery of all meeting notices, agendas and materials to Review Panel members.
8. AMENDMENTS. This Charter may be amended upon a vote of the Review Panel provided that no amendment may be approved that is inconsistent with Ordinance 123256 as amended by Ordinance 124740, or as later amended.

Attachment A:

Note: per Ordinance 123256 and Section 5.H of the Charter, if the Panel wishes to conduct a closed meeting, it may do so only to for purposes allowed under this statute:

42.30.110 RCW Executive sessions.

(1) Nothing contained in this chapter may be construed to prevent a governing body from holding an executive session during a regular or special meeting:

(a) To consider matters affecting national security;

(b) To consider the selection of a site or the acquisition of real estate by lease or purchase when public knowledge regarding such consideration would cause a likelihood of increased price;

(c) To consider the minimum price at which real estate will be offered for sale or lease when public knowledge regarding such consideration would cause a likelihood of decreased price. However, final action selling or leasing public property shall be taken in a meeting open to the public;

(d) To review negotiations on the performance of publicly bid contracts when public knowledge regarding such consideration would cause a likelihood of increased costs;

(e) To consider, in the case of an export trading company, financial and commercial information supplied by private persons to the export trading company;

(f) To receive and evaluate complaints or charges brought against a public officer or employee. However, upon the request of such officer or employee, a public hearing or a meeting open to the public shall be conducted upon such complaint or charge;

(g) To evaluate the qualifications of an applicant for public employment or to review the performance of a public employee. However, subject to RCW [42.30.140\(4\)](#), discussion by a governing body of salaries, wages, and other conditions of employment to be generally applied within the agency shall occur in a meeting open to the public, and when a governing body elects to take final action hiring, setting the salary of an individual employee or class of employees, or discharging or disciplining an employee, that action shall be taken in a meeting open to the public;

(h) To evaluate the qualifications of a candidate for appointment to elective office. However, any interview of such candidate and final action appointing a candidate to elective office shall be in a meeting open to the public;

(i) To discuss with legal counsel representing the agency matters relating to agency enforcement actions, or to discuss with legal counsel representing the agency litigation or potential litigation to which the agency, the governing body, or a member acting in an official capacity is, or is likely to become, a party, when public knowledge regarding the discussion is likely to result in an adverse legal or financial consequence to the agency.

This subsection (1)(i) does not permit a governing body to hold an executive session solely because an attorney representing the agency is present. For purposes of this subsection (1)(i), "potential litigation" means matters protected by RPC 1.6 or RCW [5.60.060\(2\)\(a\)](#) concerning:

(A) Litigation that has been specifically threatened to which the agency, the governing body, or a member acting in an official capacity is, or is likely to become, a party;

(B) Litigation that the agency reasonably believes may be commenced by or against the agency, the governing body, or a member acting in an official capacity; or

(C) Litigation or legal risks of a proposed action or current practice that the agency has identified when public discussion of the litigation or legal risks is likely to result in an adverse legal or financial consequence to the agency;

(j) To consider, in the case of the state library commission or its advisory bodies, western library network prices, products, equipment, and services, when such discussion would be likely to adversely affect the network's ability to conduct business in a competitive economic climate. However, final action on these matters shall be taken in a

meeting open to the public;

(k) To consider, in the case of the state investment board, financial and commercial information when the information relates to the investment of public trust or retirement funds and when public knowledge regarding the discussion would result in loss to such funds or in private loss to the providers of this information;

(l) To consider proprietary or confidential nonpublished information related to the development, acquisition, or implementation of state purchased health care services as provided in RCW [41.05.026](#);

(m) To consider in the case of the life sciences discovery fund authority, the substance of grant applications and grant awards when public knowledge regarding the discussion would reasonably be expected to result in private loss to the providers of this information.

(2) Before convening in executive session, the presiding officer of a governing body shall publicly announce the purpose for excluding the public from the meeting place, and the time when the executive session will be concluded. The executive session may be extended to a stated later time by announcement of the presiding officer.

Review Panel Workplan

October 2022 – September 2024

Quarter	Month(s)	Topics	Additional Items to insert somewhere:
Q4 2022	October 25	<ul style="list-style-type: none"> ● SCL Organizational Restructure ● SCL's Infrastructure Investment & Jobs act (IIJA) grant process ● Business Strategy Overview ● Approve workplan and supporting letter 	<ul style="list-style-type: none"> ● incentives/electrification updates <ul style="list-style-type: none"> ○ Options, SCL roles, business impact, how to incentives, staffing implications ● Climate goals/addressing climate change ● Time of use implementation
	November 22	<ul style="list-style-type: none"> ● Business Strategy Financial* <ul style="list-style-type: none"> ● Debt Strategy Scope <ul style="list-style-type: none"> ▪ Rates & inflation update ▪ Inflation risk analysis, strategies & planning; forward looking as part of financial plan/debt strategy ● Other rate design options under consideration 	
	December 12	Meeting Cancelled	
Q1 2023	January	<ul style="list-style-type: none"> ● Business Strategy – Financial (continued) <ul style="list-style-type: none"> ● Debt management/Debt strategy 	
	February	<ul style="list-style-type: none"> ● Cyber and Physical Security ● Employee Culture Survey ● Market Briefing 	
	March	<ul style="list-style-type: none"> ● Business Strategy – Customer Experience <ul style="list-style-type: none"> ○ Voice of the customer ○ Strengthen and fix core customer services <ul style="list-style-type: none"> ▪ Service to bill ○ Expand customer service options <ul style="list-style-type: none"> ▪ Time of use implementation 	

		<ul style="list-style-type: none"> ▪ Demand response ▪ Renewable Plus 	
Q2 2023	April	<ul style="list-style-type: none"> • Business Strategy – Workforce & Organizational Agility <ul style="list-style-type: none"> ○ OCM/BPM programs ○ Build an agile workforce • Q1 2023 Strategic Plan Report • March Executive Dashboard 	
	May	<ul style="list-style-type: none"> • Panel officer elections • Legislative update • Business Strategy – Energy Future <ul style="list-style-type: none"> • Grants and policies • Grid modernization • Utility Technology Roadmap • New Markets • Electrification • System planning • From RP: How can SCL promote regional goals around energy efficiency, decarbonization, economic development and smart growth (beyond SCL’s service territory)? (SCL & Regional Economic Development, Smart Growth, Climate Goals) • From RP: BPA Markets (Decarbonization & electrification) 	
	June	<ul style="list-style-type: none"> • Business Strategy – We Power <ul style="list-style-type: none"> • Division dashboards • Skagit relicensing • Invest in core infrastructure 	
Q3 2023	July	<ul style="list-style-type: none"> • Staffing need salary and Job Classification realignment • June Executive Dashboard 	

		<ul style="list-style-type: none"> • Q2 2023 Strategic Plan Report • Other TBD 	
	August	---No meeting---	
	September	<ul style="list-style-type: none"> • Q3 2023 Strategic Plan Report • Other TBD 	
Q4 2023	October - December	<ul style="list-style-type: none"> • September Executive Dashboard • TOD rate design implementation/public engagement • Begin work towards next Strategic Plan Update • Strategic Plan Update • Draft Revenue Requirement 	
Q1 2024	January – March	<ul style="list-style-type: none"> • Strategic Plan Update • January Executive Dashboard 	
Q2 2024	April - June	<ul style="list-style-type: none"> • Strategic Plan Update Completed • Final Revenue Requirement • Review Panel SP letter • Q1 Executive Dashboard • Panel 2024 – 2025 Workplan • May: Panel Officer Elections 	
Q3 2024	July - September	<ul style="list-style-type: none"> • June Executive Dashboard • Work Plan Development: 2024-2026 • Work Plan Approval • Q2 Executive Dashboard • Q2 2022 Strategic Plan Report 	

Strategic Plan Update

- Financial Health and Affordability - Q3 Update
- Debt Management Strategy



**RECOVER
REFOCUS
RESTART**

2022–2026 Strategic Plan



Strategic Plan Business Strategies



Improve the Customer Experience



Create our Energy Future



Develop Workforce and Organizational Agility



Ensure Future Financial Stewardship and Affordability



We Power



Today's focus



ENSURE FINANCIAL HEALTH & AFFORDABILITY

Financial stability is essential to everything we do. Responsible financial planning makes it possible to develop innovative energy solutions, plan for critical investments, and keep our rates affordable.

Some of this work is internally focused, with a long-term debt strategy and improved budget monitoring. But when we make progress in these areas, our customers benefit with more choices and stable and affordable prices.

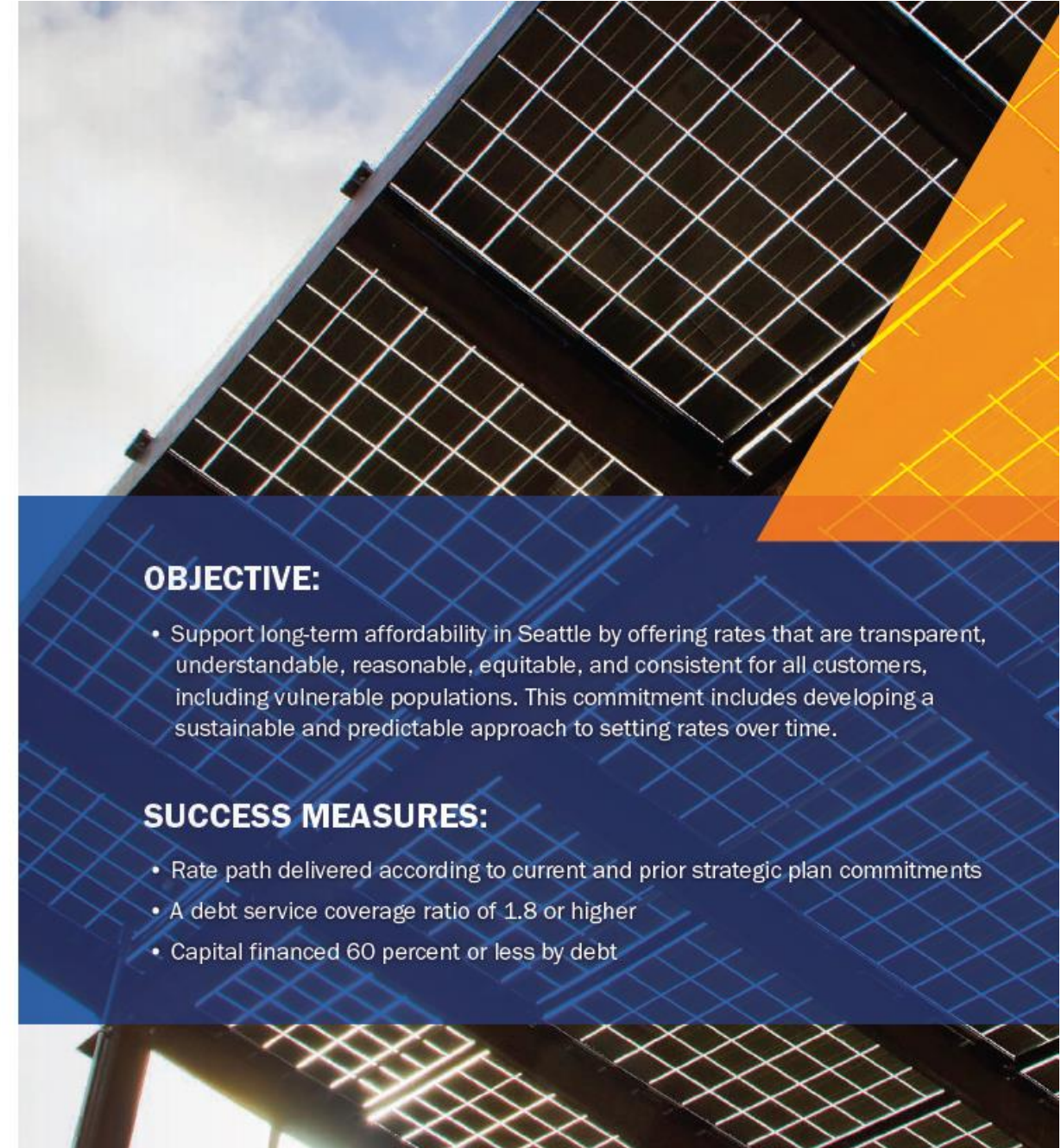
Projects, Initiatives, Activities:

CONTROL RATE INCREASES: While City Light's rates need to keep up with costs to keep the lights on, the utility is committed to holding rate increases to a trajectory that resembles inflation. To do this, we will restructure our project tracking and improve budget management to drive accountability. This will allow us to lower labor costs and right-size the capital program. Because prudent debt management is crucial for affordability in the long term, City Light will work with the Review Panel to develop targets and policies to inform our capital financing strategies.

PRICE SERVICES FOR THE FUTURE: In our new energy future, clean energy technologies will power our homes and businesses, small generation sources, like solar, will become more common, and transportation electrification will continue to grow. The way we structure our rates needs to adapt to the new energy future, too. Building on new technology from advanced meters and billing system upgrades, City Light will continue to deliver the strategies outlined in our 2018 Rate Design Report by rolling out new pricing options that encourage decarbonization and grid flexibility while also helping residents and businesses manage their energy costs.

ROAD TO RECOVERY: Stable revenues are essential to sustain our financial health and deliver affordable electricity. As City Light prepares to restart credit and collections after a five-year hiatus, we need to review and update our policies, services, and practices. At the same time, we must be transparent, fair, and mitigate the impacts of racial and economic barriers. We recognize that many of our customers are still struggling in the wake of the COVID pandemic and we will work diligently to ensure that those facing financial hardships are aware of and have meaningful access to assistance.

Today's deep dive



OBJECTIVE:

- Support long-term affordability in Seattle by offering rates that are transparent, understandable, reasonable, equitable, and consistent for all customers, including vulnerable populations. This commitment includes developing a sustainable and predictable approach to setting rates over time.

SUCCESS MEASURES:

- Rate path delivered according to current and prior strategic plan commitments
- A debt service coverage ratio of 1.8 or higher
- Capital financed 60 percent or less by debt

Pricing Services for the Future

“Building on new technology from advanced meters and billing system upgrades, City Light will continue to deliver new pricing options that encourage decarbonization and grid flexibility while also helping residents and businesses manage their energy costs.”

What have we done so far in 2022?

- Developed and secured passage of the 2023-2024 Rate Ordinance, a major update to rates that includes the near-term rate design priorities in blue:
 - Bill Redesign
 - [Adjust Residential Block Rates](#)
 - [Time of Day \(TOD\) Rates](#)
 - Budget and Flat Rate Residential Billing
 - [Fixed Charge Recovery for Customer Costs in all Rate Schedules](#)
 - Interruptible/Demand Response Pilot Rate
- Begun work on the implementation of Time of Day (TOD) Rates

Road to Recovery

“As City Light prepares to restart credit and collections after a five-year hiatus, we need to review and update our policies, services, and practices. We recognize that many of our customers are still struggling in the wake of the COVID pandemic and we will work diligently to ensure that those facing financial hardships are aware of and have meaningful access to assistance.”

What have we done so far in 2022?

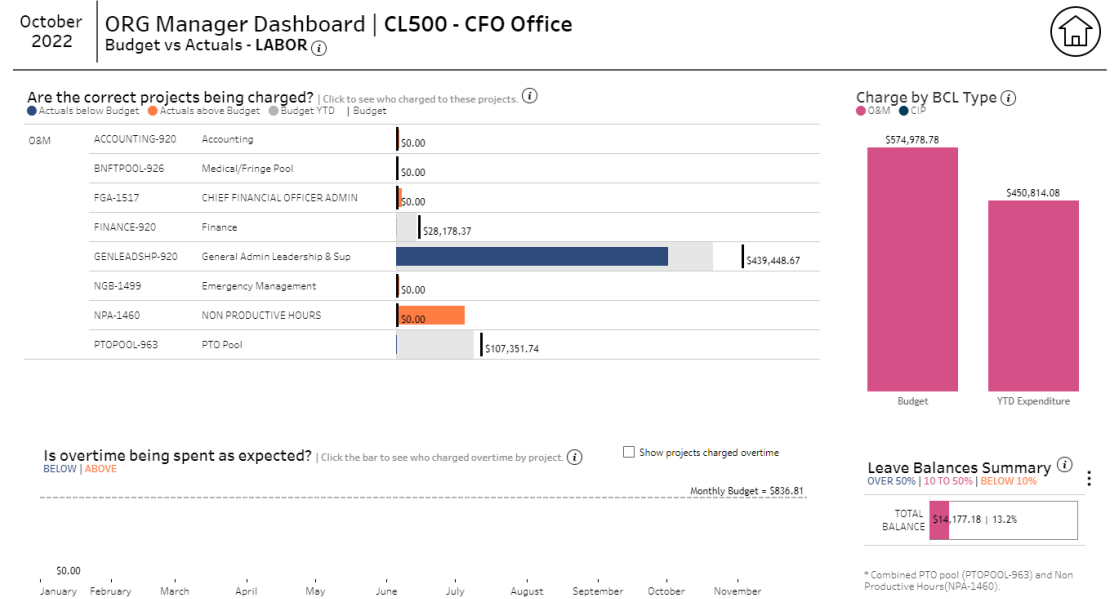
- Resumed recovery efforts, focusing on customers with large past due balances.
 - Urgent Notices resumed September 26
 - Final Shutoff Notices resumed October 6
 - Disconnects resumed October 24
- Developed new tools for accessing help, such as information packets for landlords and apartment buildings, and updated websites.
 - Over 5,000 successfully completed short-term payment plans and nearly still 3,000 active
 - More than 3,000 long-term payment plans created
 - A total of \$1.1 million in bill credits applied to overdue balances for 1,550 residential customers
 - By year-end, an additional \$8.8 million of Washington Arrears bill credits will be applied to customer accounts for debt accrued from March 2020 through December 2021

Control Rate Increases

“Hold rate increases to a trajectory that resembles inflation. To do this, we will restructure our project tracking and improve budget management to drive accountability. This will allow us to lower labor costs and right-size the capital program. Because prudent debt management is crucial for affordability in the long term, City Light will work with the Review Panel to develop targets and policies to inform our capital financing strategies.”

What have we done so far in 2022?

- 6-year rate path as part of strategic plan
 - Increases at or near inflation
 - Debt service coverage near 2.0
- Increased liquidity (days cash on hand)
- Developed financial dashboard for people/org unit managers, rollout in Q4

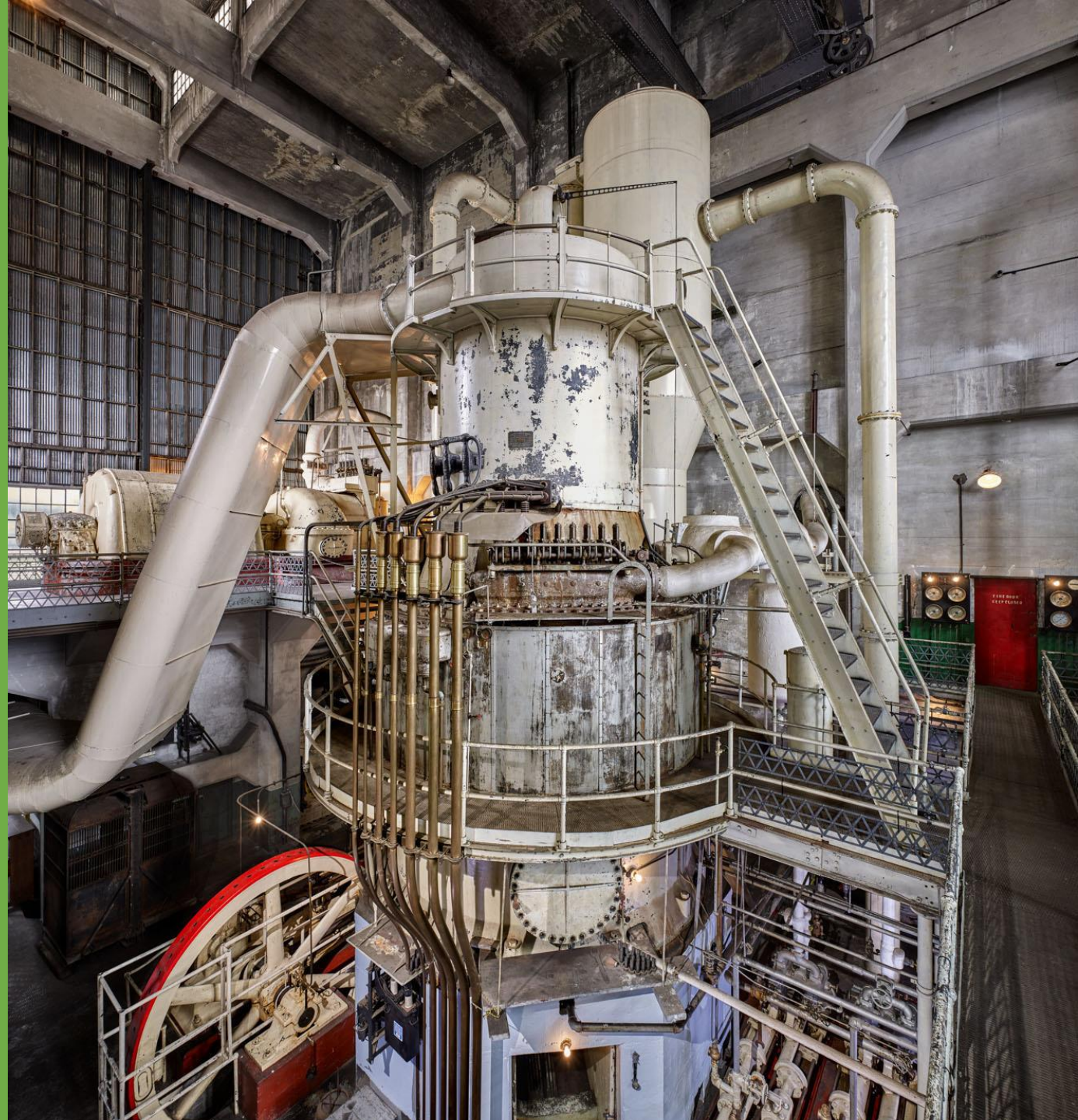


Deep Dive Topic

Debt Strategy



Seattle City Light



Seattle City Light

SCL Customer Review Panel - Debt Overview Discussion

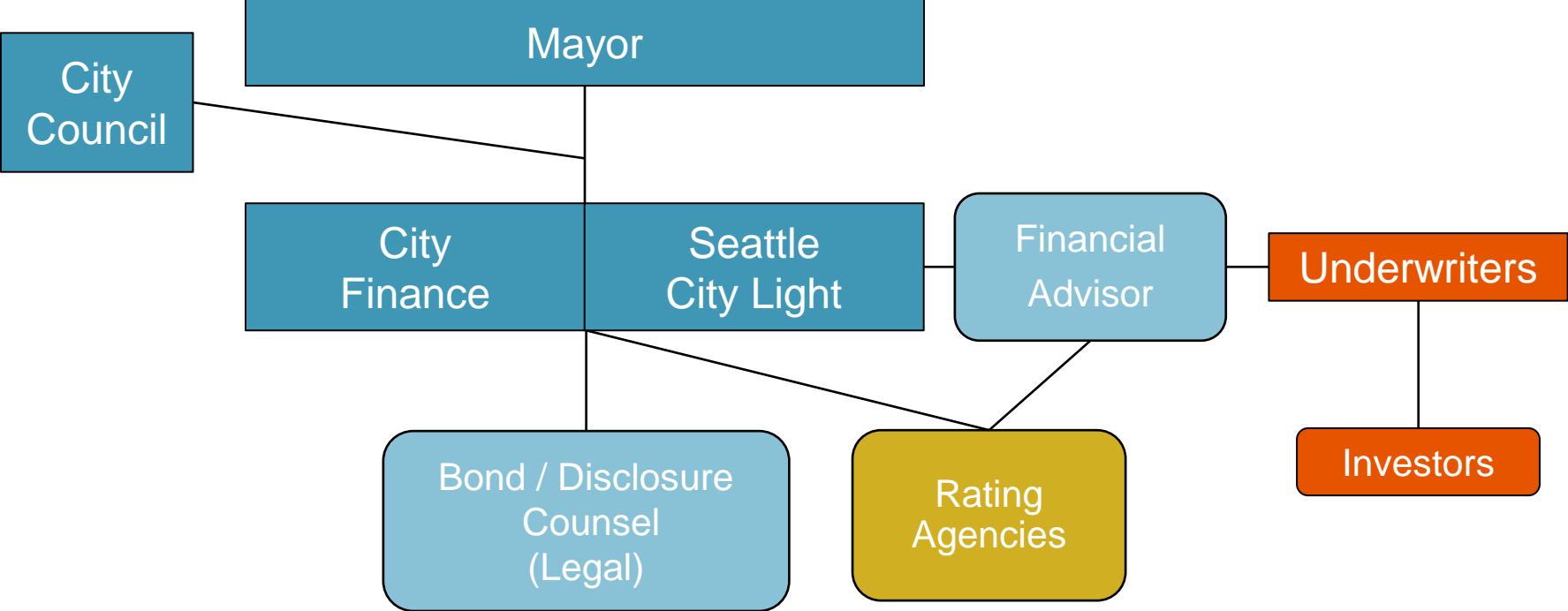
Rob Shelley

MANAGING DIRECTOR

Tel: +1 206-628-2879

Email: robert.shelley@psc.com

Seattle City Light – Debt Issuance Participants



Funding Sources for a Public Utility's Capital Program

TWO PRIMARY WAYS THAT PUBLIC UTILITIES FUND THEIR CAPITAL PROGRAMS

- 1) Pay as you go (i.e., Pay-Go) – Utility pays for current capital expenditures with rate revenue received in the current year
 - 2) Debt funding – Utility funds current capital expenditures through borrowing and repays this debt with future rate revenue
- For almost all utilities, rate affordability constraints and project timing considerations necessitate some amount of debt issuance for capital funding requirements.
 - No “right” mix of capital funding but most utilities try to achieve some type of balance between the two funding methods.

FUNDING MIX IS DIFFERENT FOR PRIVATE AND PUBLIC UTILITIES

- No private ownership/equity position available with a public utility
- Subsidized borrowing cost available to public utilities through tax-exempt borrowing

TENDENCY FOR PUBLIC UTILITIES TO HAVE GREATER RELATIVE USE OF DEBT THAN THEIR PRIVATE UTILITY COUNTERPARTS

Role of Debt in Funding a Utility's Capital Program

COMPOSITION OF A UTILITY'S CAPITAL PROGRAM CAN HELP INFORM HOW MUCH SHOULD BE FUNDED BY DEBT

- New generation vs major maintenance of existing system
- Useful life of assets
- Assets that have an accelerated timeline for completion

RATEPAYER CONSIDERATIONS

- Inter-generational equity is a factor for major projects
- Utility borrowing is on behalf of ratepayers at interest rates that are usually much lower than what ratepayers could achieve on their own. Examples of approximate current borrowing rates:
 - 30-year tax-exempt borrowing cost \approx 4.50%
 - 30-year home mortgage \approx 7.00%
 - Average credit card rate \approx 16.00%

Utility Financial Metrics

THREE PRIMARY FINANCIAL MEASURES THAT RATING AGENCIES AND INVESTORS FOCUS ON WHEN EVALUATING A UTILITY CREDIT

- **Debt Service Coverage**

- Annual revenues available to pay debt service divided by the annual debt service requirement. It is a key measure of the ability of an entity to meet the debt service payments on its bonds.

- **Debt Ratio (i.e., leverage)**

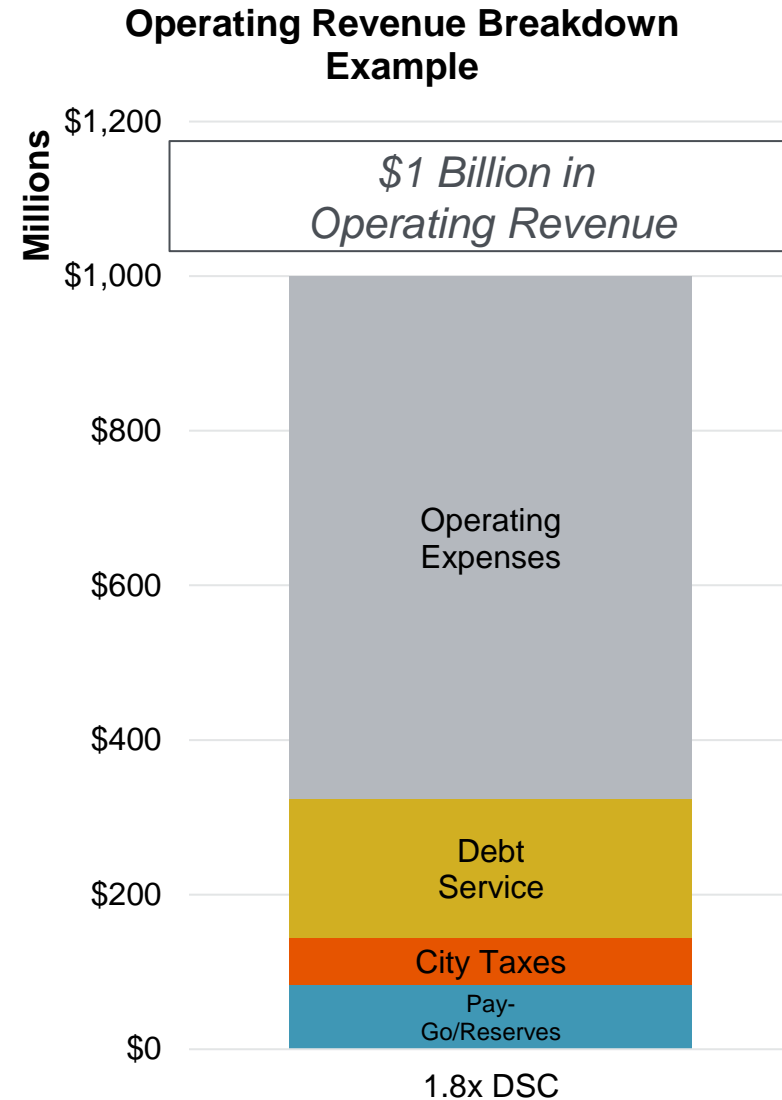
- A financial ratio that measures the extent of an entity's leverage. The debt ratio is defined as the ratio of total debt to total fixed assets, expressed as a decimal or percentage. It can be interpreted as the proportion of an entity's fixed assets that are financed by debt and is a measure of how reliant an entity is on debt for funding its capital program.

- **Liquidity**

- Liquidity metrics measure the ease with which an entity can meet its financial obligations with the liquid assets available to them (i.e., the ability to pay off expenses as they come due). Typical measure is "days cash on hand" which is the number of days that an entity can continue to pay its operating expenses, given the amount of cash available.

Utility Financial Metrics

- Debt service coverage and amounts available for Pay-Go capital funding are interrelated as possible uses for revenue remaining after the payment of debt service are relatively limited.
- In the State of Washington this even more pronounced as the State's Accountancy Act restricts transfers of enterprise revenue for general government purposes.



Seattle City Light Financial Policies

CITY LIGHT OPERATES UNDER TWO POLICIES THAT INDIRECTLY IMPACT DEBT AND RATES:

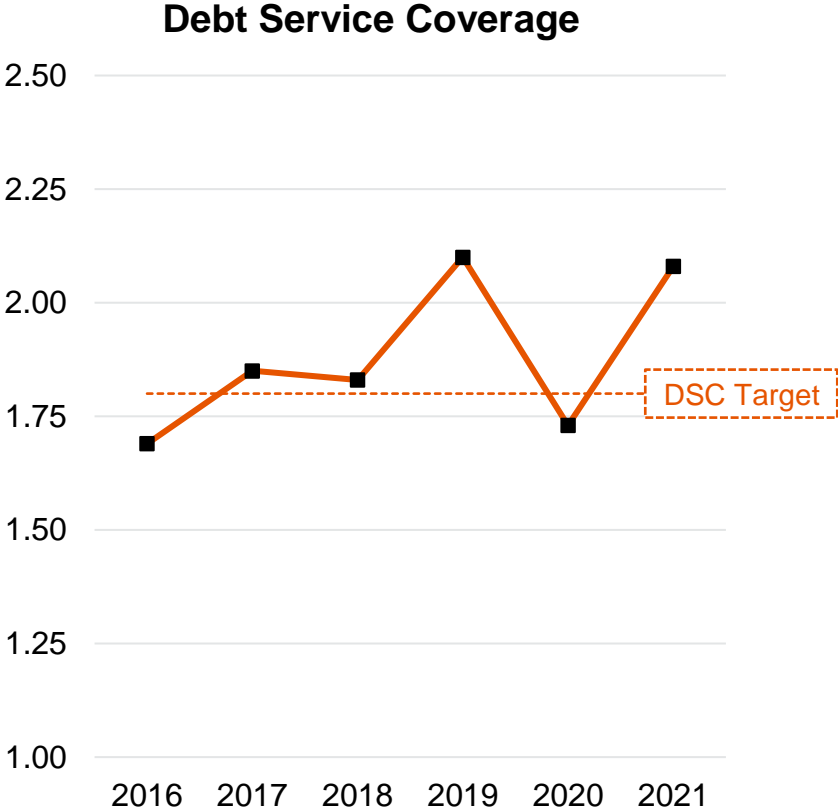
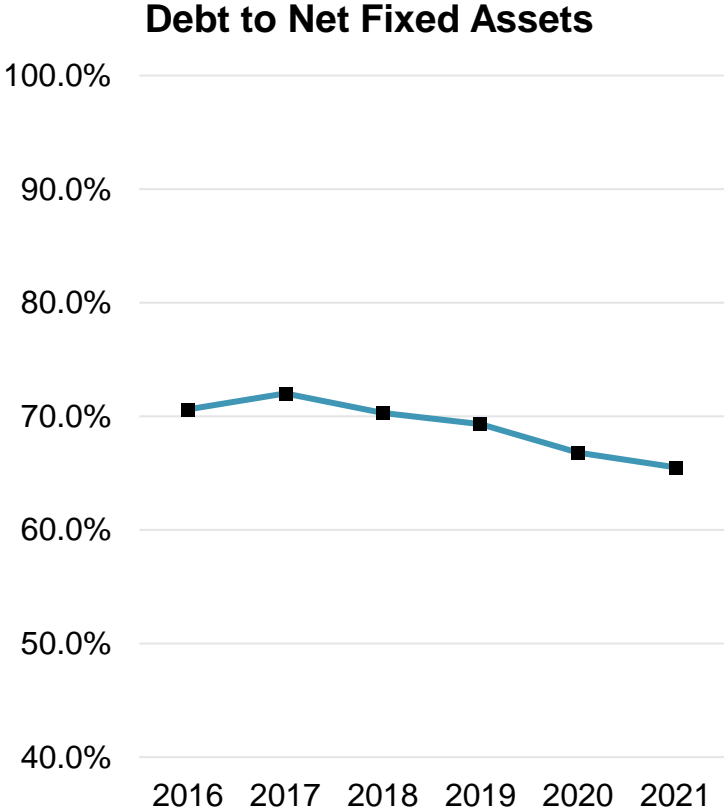
- 1) Target 1.8X debt service coverage:** Set rates to yield enough revenue to cover principal & interest on our bonds by a factor of 1.8 times. “Extra” revenue is used to cash-fund capital work.
- 2) Plan to 40% cash-fund the CIP:** Constrain capital spending so that we can afford to pay upfront for 40% of our six-year capital improvement plan (CIP) with rate revenue received in the year of expenditure. The remaining 60% is projected to be debt financed with bonds.

Financial policies are set by Council resolution; the last update was in 2010.

Additionally, in its most recent Strategic Business Plan City Light has targeted minimum annual cash balances equal to 130 days of operating expenses.

Seattle City Light – Debt Metric History

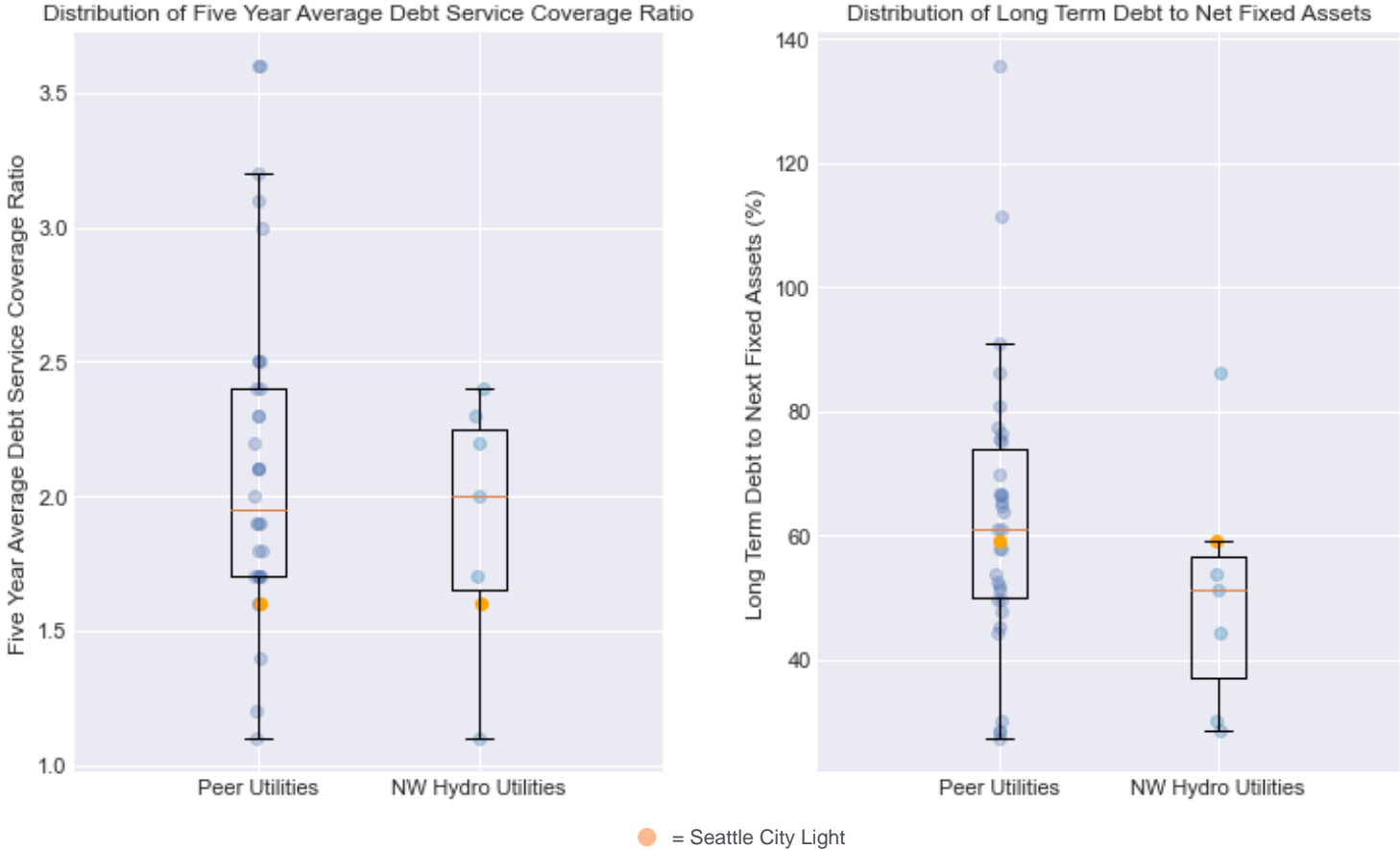
The Utility's debt metrics have trended positively over the past six years.



Source: Seattle City Light Audited Financial Statements

Seattle City Light – Debt Metric Peer Comparison

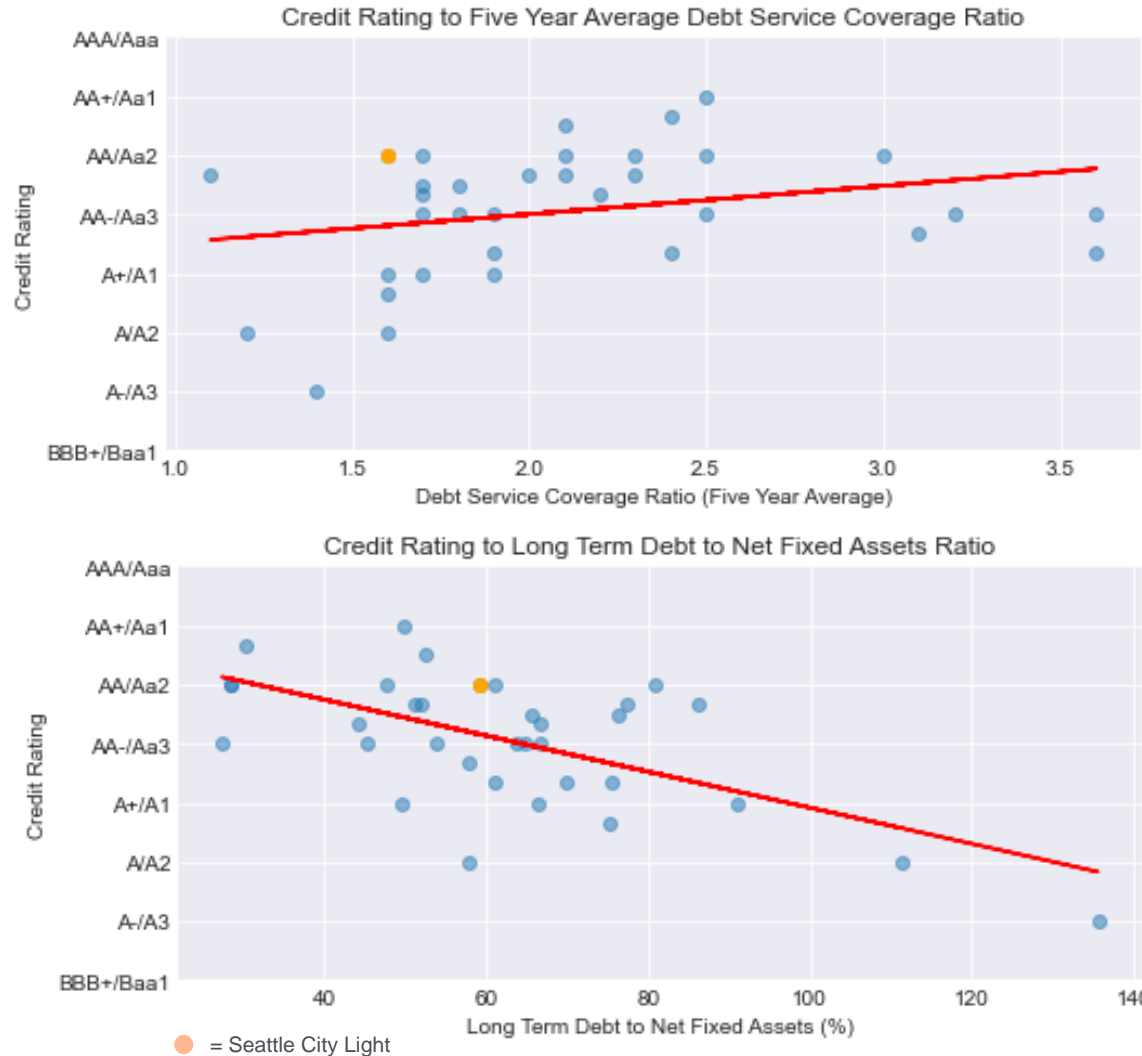
While improved,, Seattle City Light’s debt metrics are generally not as strong as those of other public power utilities; this is especially the case when compared with other hydro-based utilities in the Northwest.



Source: Moody's MFRA

Seattle City Light – Credit Rating Comparison for Peer Utilities

- Not surprisingly, for public power utilities there is a correlation between their credit rating and their debt service coverage levels and leverage amounts.
- Due to other credit-supportive factors, Seattle City Light's ratings are comparatively higher than would be justified solely by its debt metrics.



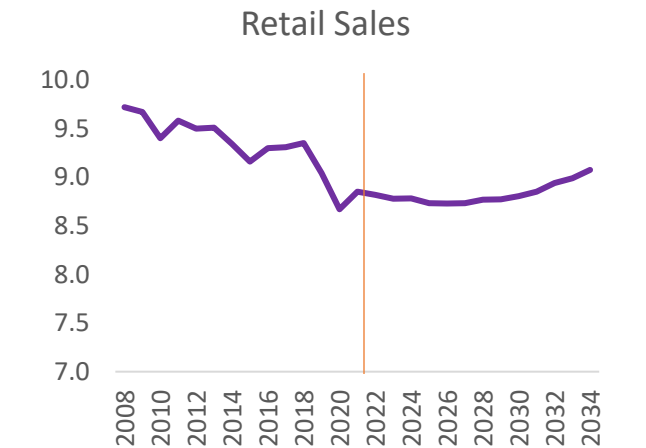
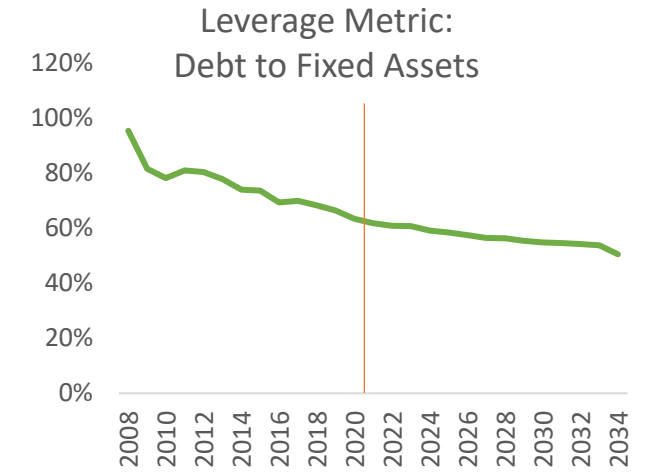
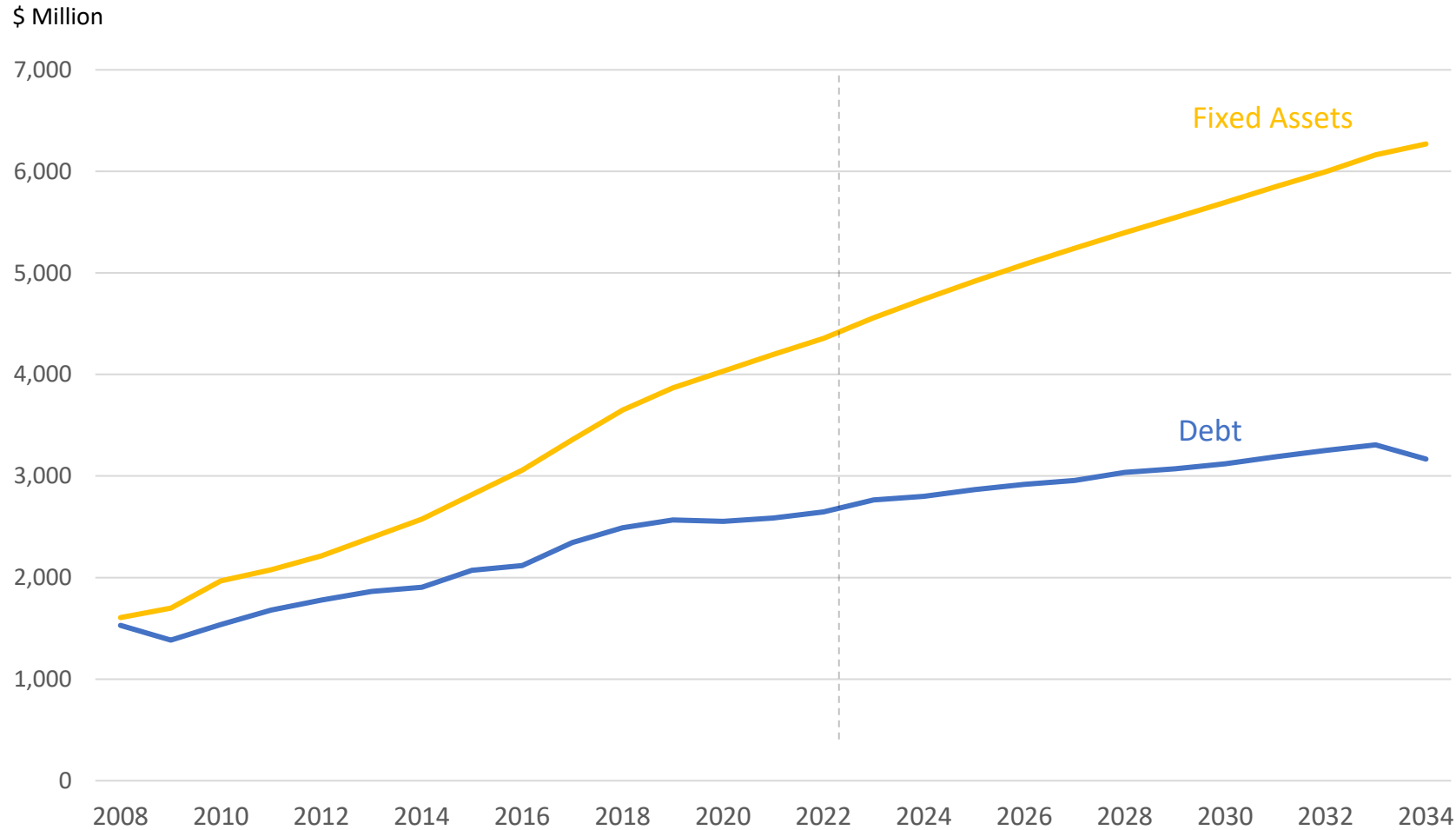
Questions?

Debt Strategy – First Principles

A Debt Strategy answers two key policy questions:

1. What is the role of debt?
 - Balance affordability and service levels
2. What is the right level of debt (leverage)?
 - Remain competitive for low-cost financing (credit rating)

Debt, Assets and Leverage



386k meters



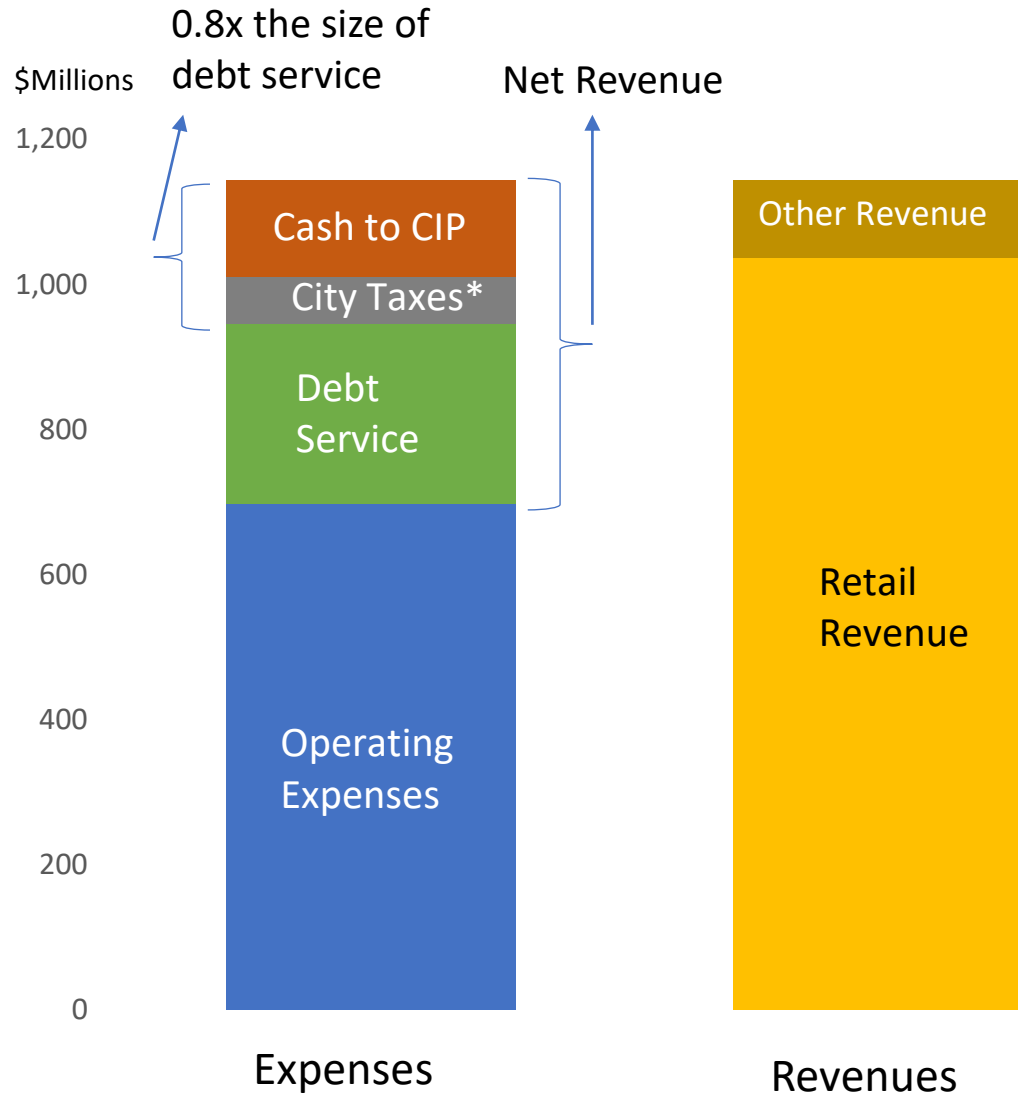
482k meters



City Light's Debt Strategy

- City Light manages its debt using two primary financial policies
 - Debt Service Coverage Ratio
 - Percentage Cash Funding of Capital Program
- The policies work together to ensure financial stability and sound debt management
- 2022-2028 Strategic Plan rate path
 - Debt Service coverage ratio higher than 1.8x (close to 2.0x)
 - Meet 40% CIP funding target given current CIP Plan

Refresher: What is Debt Service Coverage (DSC)



$$\begin{aligned}
 &+ \text{Retail Revenue} \\
 &+ \text{Other Revenue} \\
 &- \text{Operating Expenses} \\
 \hline
 &= \text{Net Revenue}
 \end{aligned}$$

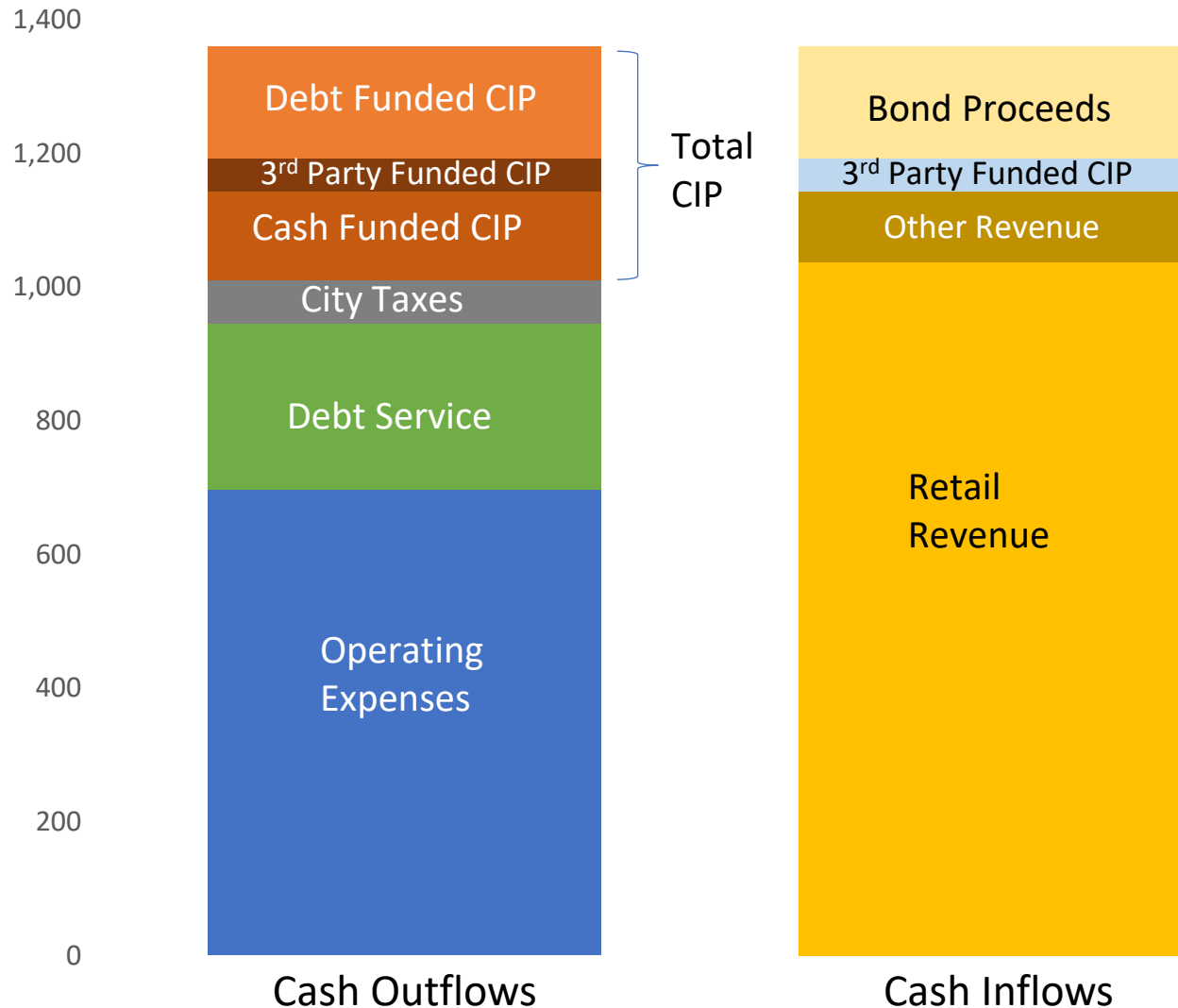
$$\text{Debt Service Coverage} = \frac{\text{Net Revenue}}{\text{Debt Service}}$$

Cash funding of CIP is what is left after Net Revenue is used to Pay Debt Service, City Taxes and the transfer of any funds to reserves

*City Taxes not included in the calculation of debt service coverage

DSC and Capital funding

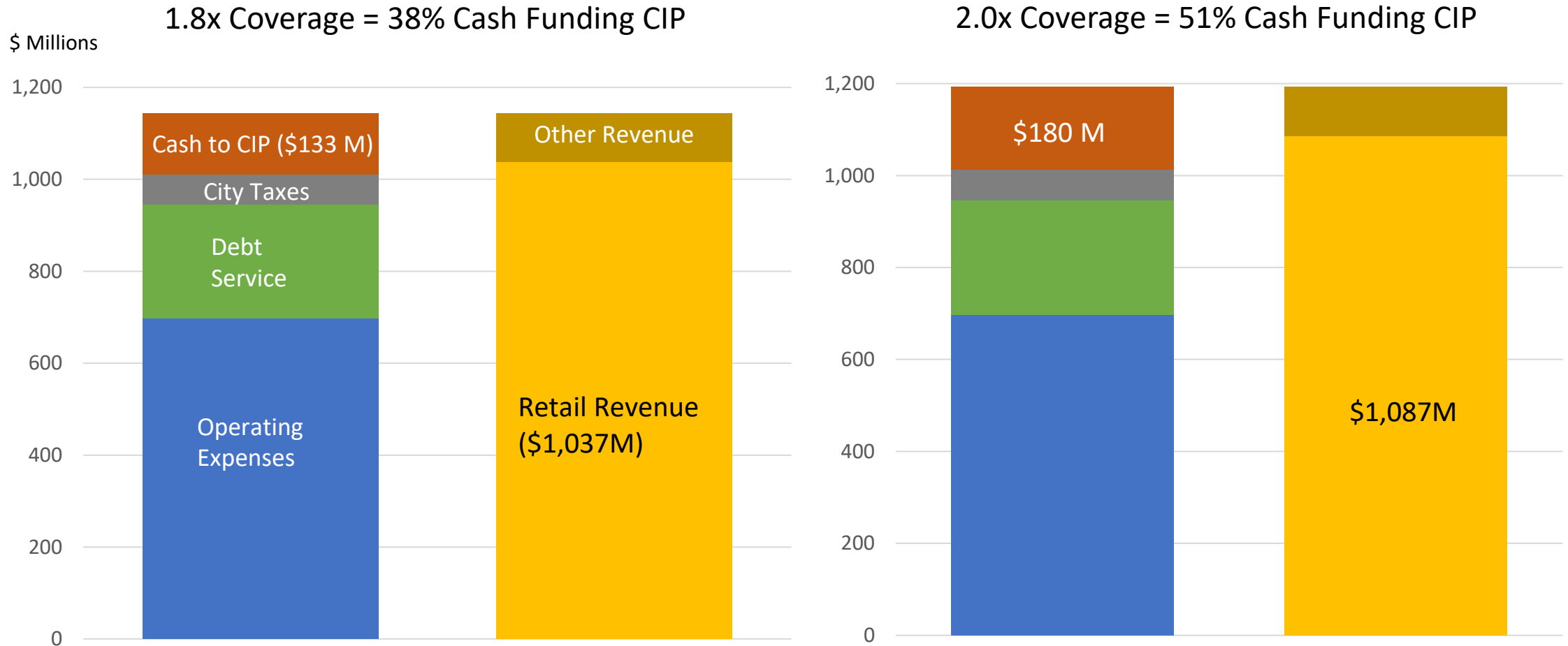
\$ Millions



- Current Target is to have over 40% of net CIP funded with cash
 - $\text{Net CIP} = \text{CIP} - 3^{\text{rd}} \text{ Party Funded CIP}$
- Higher Debt Service Coverage means more CIP is funded with cash

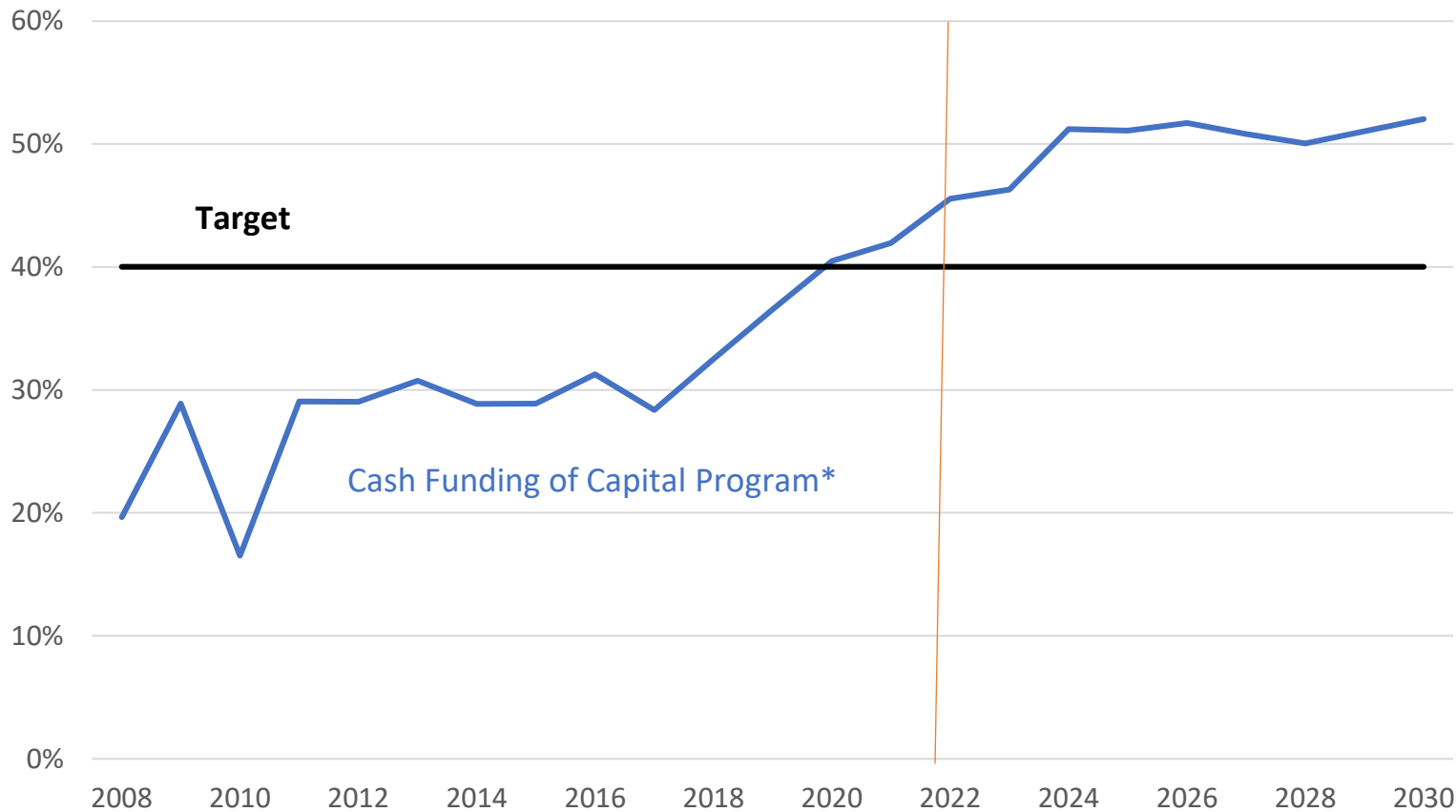
Example: 1.8x vs. 2.0x DSC

Assumes \$350M net CIP



Takeaway: Additional 0.2x coverage provides ~\$50M more cash to fund CIP. More cash means less debt

Capital Program Funding



We are moving in the right direction

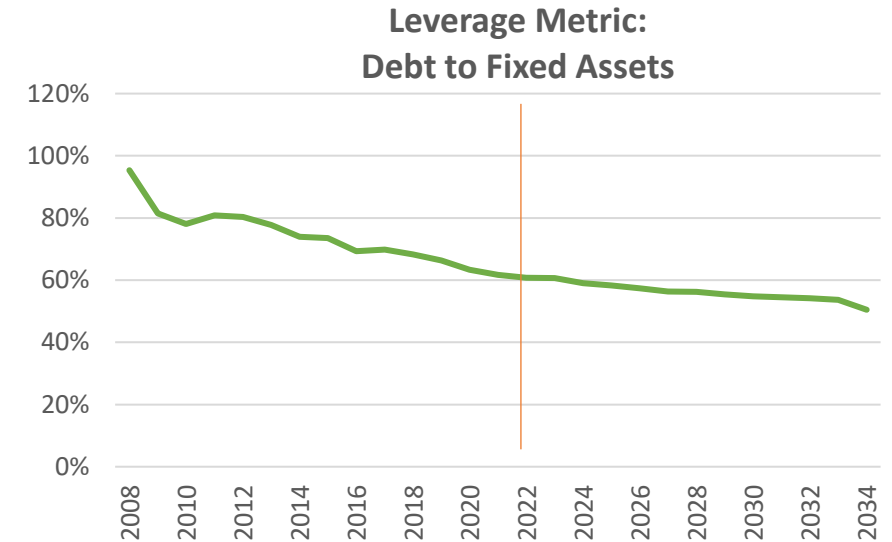
*Prospective rolling 6-Year Average (i.e., 2022 = avg 2022-2027)

Key Forecast Assumptions: CIP ~400M/Year, 3% Rate increases in 2025-2028, DSC 2.0x 2029-2030

Discussion

Feedback on City Light's proposed policies/debt strategy?

- Debt Service Coverage
 - Minimum of 1.8x
- Cash Funding CIP
 - Target greater than 40% on a 6-Year Rolling Average
 - Flexibility for exceptional circumstances
- Liquidity
 - Hold minimum 130 Days Cash on Hand
- Leverage
 - Debt to Fixed Assets of less than or equal to 60%



Proposed Next Steps

- Spring 2023: City Light will document financial policies and debt strategy (white paper)
- Late 2023: Review strategy given new information around capital needs, inflation, interest rates, etc.
- Debt strategy white paper will become appendix of next Strategic Plan in 2024 (for 2025-2030)



Seattle City Light

seattle.gov/light





UPDATED –

City Light Review Panel Meeting Schedule - 2023

DATE	TIME	LOCATION	Notes
Wednesday, 1/18/2023	9-11am	Microsoft Teams Meeting or In Person SMT 2821	
Wednesday, 2/15/2023	9-11am	Microsoft Teams Meeting or In Person SMT 2821	
Wednesday, 3/15/2023	9-11am	Microsoft Teams Meeting or In Person SMT 2821	
Wednesday, 4/19/2023	9-11am	Microsoft Teams Meeting or In Person Location TBD	
Thursday, 5/11/2023	9-11am	Microsoft Teams Meeting or In Person Location TBD	
Thursday, 6/22/2023	9-11am	Microsoft Teams Meeting or In Person Location TBD	
Wednesday, 7/19/2023	9-11am	Microsoft Teams Meeting or In Person Location TBD	
Wednesday, 9/20/2023	9-11am	Microsoft Teams Meeting or In Person Location TBD	
Wednesday, 10/18/2023	9-11am	Microsoft Teams Meeting or In Person Location TBD	
Wednesday, 11/15/2023	9-11am	Microsoft Teams Meeting or In Person Location TBD	
Wednesday, 12/20/2023	9-11am	Microsoft Teams Meeting or In Person Location TBD	

Glossary of Utility Sector Terms

Many of these definitions come from Bonneville Power Association's website and the Pacific Northwest Utilities Conference Committee 2016 Regional Power Plan glossary. The others have been defined and supplied by Aether Advisors LLC.

Sources:

<https://www.bpa.gov/news/pubs/Pages/Definitions---C.aspx>

<http://www.pnucc.org/sites/default/files/file-uploads/2016%20NRF%20Final.pdf>

aMW - An abbreviation for average megawatts. Usually refers to the amount of average megawatts over a given time horizon. Example, a plant that has 500 aMW capacity is capable of generating 500 MW per hour.

Alternative scenario - A plausible future, used as an alternative to the base case assumptions.

Average energy -The total power produced over a period of time divided by the number of hours in the period of time. Can be expressed in kilowatthours/day, megawatthours/month or average megawatts.

Base case - The study case that is most representative of the cases evaluated under a specific set of conditions.

Base case assumptions - The assumptions expected to be those that are most likely to occur in preparing a strategic plan.

Basis - The price differential between the price of a commodity at one location versus the price of the underlying commodity at the primary location.

Basis Risk - The risk that the value of the commodity used as a hedge at one location does not move in line with the underlying exposure of the commodity at the primary location.

Bbl - An abbreviation for "barrel". A unit of measurement for crude oil.

Bcf - A natural gas volumetric measurement representing one billion cubic feet. One billion cubic feet (1 Bcf) is equal to 1,000,000 Mcf.

Boiler - A large furnace in which water-filled tubes are heated to produce steam.

Bond ratings - Evaluations of the credit quality of utility bonds usually made by independent rating services such as Moody's (Investor Service), Standard & Poor's (Corporation), and Fitch

Investors Service. Ratings are intended to measure the probability of the timely repayment of principal and interest on the bonds.

Break-even - Refers to the price level at which a producer can recover all of its costs.

British thermal unit (Btu) - A measure of heat quantity in the English system, equal to the amount of heat energy necessary to raise the temperature of one pound of water by one degree F; replaced by joules in the metric system, one Btu equals 1055 joules.

CAISO – California Independent System Operator, the centralized system operator for the service territory of the California investor owned utilities. Also the operator of the Western Energy Imbalance Market (EIM).

Capacity - The maximum load that a gas pipeline, generator, piece of equipment, substation, transmission line, or system can carry under existing service conditions.

Capacity factor - The ratio of the average load on a generating resource to its capacity rating during a specified period of time, expressed in percent.

Capital programs - The budget programs that fund the asset investments (depreciable or amortizable assets), which includes transmission and general plant physical assets which are tangible capital assets. Intangible assets of conservation and renewable resource acquisition investments may also be included.

Carbon cap - A limit on the amount of allowable carbon produced in a given region for a defined time period.

Carbon credits or allowances - A fixed amount of carbon emissions to be produced is set for a period of time, and allowances or credits are allocated to carbon generators. The idea is that entities producing less carbon than their allowed amount can sell their allowances to other parties who are producing more than their allowed credit allowance. Often these can be traded or re-sold. A related concept is “carbon cap & trade” program.

Carbon tax – a tax assessed on carbon emissions, usually measured and assessed at the point where the carbon is emitted.

Cash flow - The residual after adjusting net revenues for expenses not requiring cash, changes in accrued revenues and expenses, cash used for investments, and cash from borrowing and appropriations.

Clean Air Act (CAA) - 1) A 1963 Federal law, amended several times since, giving the Federal government powers to limit air pollution. 2) A term loosely applied to the Air Quality Act of 1967, which gave the Federal government a stronger regulatory role. An especially important effect was the development of standards based on concentrations of pollutants in air.

Clean Air Interstate Rule (CAIR) - On March 10, 2005, EPA issued the Clean Air Interstate Rule (CAIR). This rule provides states with a solution to the problem of power plant pollution that drifts from one state to another. CAIR covers 27 eastern states and the District of Columbia. The rule uses a cap and trade system to reduce the target pollutants—sulfur dioxide (SO₂) and nitrogen oxides (NO_x)—by 70 percent. CAIR is currently in place while the CF Circuit considers the U.S. Supreme Court’s motion to lift the stay of the Cross State Air Pollution Rule.

Clean Power Plan - On August 3, 2015 President Obama and the EPA announced the final to cut emissions from existing power plants. The goal is that by 2030, carbon emission from the power sector will be cut by 32 percent nationwide below 2005 levels.

Clean Water Act (CWA) - A Federal law intended to restore and maintain the chemical, physical, and biological integrity of the nation’s waters and secure water quality that provides for the protection and propagation of fish, shellfish, and wildlife, as well as for recreation in and on the water.

CNG - Abbreviation for “compressed natural gas”. Natural gas is pressurized to less than 1% of the volume it occupies at standard atmospheric pressure.

Cogeneration - Cogeneration is the technology of producing electric energy and other forms of useful energy (thermal or mechanical) for industrial and commercial heating or cooling purposes through sequential use of an energy source.

Combined cycle - The use of a combustion turbine and a steam turbine in an electrical generation plant so that the waste heat from the combustion cycle provides heat energy for the steam cycle to increase its efficiency.

Combustion turbine (CT) - Single cycle generation (not using the steam turbine); higher heat rate and less efficient than combined cycle. But relatively easy to dispatch and is therefore used as a peaking plant to meet short-term increases in demand.

Commodity Futures Trading Commission (CFTC) - U.S. Commodity Futures Trading Commission, a federal agency with oversight of futures and financial derivatives trading.

Compounded Annual Growth Rate (CAGR) - A tool to measure the annual growth rate of an investment over a specified period of time longer than one year, when the growth rates are not constant for each interval.

Control Area - A part of a power system or a combination of systems to which a common generation control scheme is applied to match generation and load. BPA's control area is interconnected with 13 control areas in the Northwest. Points of interchange are metered as part of automatic generation control (AGC).

Cooperative - A private, nonprofit utility, owned by its members or consumers and operated within State law but essentially self-regulated by a board of directors elected from its membership.

Correlation - A statistical term describing the relationship between two variables. "Tightly correlated" refers to two variables that move very similarly to one another.

Cost allocation - A methodology to allocate the total system costs across all the customer classes.

Cost of capital- The blended cost of equity and debt that a company incurs to finance investments.

Cost allocation – process to allocate costs to customers, across different classes of customers.

Credit Risk - Financial risk associated with potential default by counterparty.

Critical water - When planning electric resources, taking a conservative perspective to model estimated streamflows that could have been produced during the historical critical period, given today's generating facilities and constraints.

Cross-State Air Pollution Rule" (CSAPR) - EPA regulation introduced in 2011 after the DC District court vacated the Clean Air Interstate Rule, to address the "Good Neighbor" aspect of the Clean Air Act. The regulation focuses on the transport of air pollution impacting the downwind states ability to comply with National Ambient Air Quality Standards (NAAQS).

Curtailement - A temporary reduction in the flow of natural gas or electric power delivery through transmission facilities under emergency conditions.

Dam - A structure built to provide flood control, irrigation, and/or power generation. Some have storage reservoirs. Also see reservoir.

Delivery Month - The month in which delivery occurs in connection with a transaction between two parties.

Debt service - 1) The principal and interest on outstanding bonds. 2) The retirement of bonds according to schedules in each bond issue, plus any reserve and contingency requirements reduced by investment income on various reserve accounts. 3) Sometimes used to refer to principal and interest on unpaid appropriations.

Debt Service Coverage Ratio – The ratio of the debt service divided by net income. Usually expressed as a ratio measurement (example: 1.8 x).

Degree day - The number of degrees that the average outdoor temperature falls below or exceeds a base value (usually 18 degrees C, or 65 degrees F) in a given period of time.

Demand-side management (DSM) - The strategies that focus on influencing when and how customers use electricity, with an emphasis on reducing or leveling load peaks, such as conservation measures and rate incentives for shifting peak loads, and energy storage schemes for reducing, redistributing, shifting, or shaping electrical loads.

Demand-side resource - An energy resource such as conservation that is based on how electricity is used, not produced.

Department of Energy (DOE) - U.S. Department of Energy.

Depreciation - In accounting and many ratemaking applications, a systematic means of recognizing or allocating the non-cash expense of a long-lived asset to a particular year.

Direct costs - Costs readily identifiable or obviously traceable to a specified program, project, or other cost objective.

Discount rate - An interest rate that reflects the value of money over time. In comparing alternatives for a decision, a discount rate is applied to make different monetary stream flows equivalent, in terms of a present value or a levelized value.

Distributed efficiency - Infrastructure upgrades to utilities' transmission and distribution systems that save energy by minimizing losses.

Distributed energy resources (DER) – Small scale generation that can be installed on a client's site. The value of DER is the combined cost of generation and distribution combined. DER can include but is not limited to mini wind turbines, solar panels, fuel cells, combined heat and power and on-site energy storage.

Dodd Frank CFTC Regulation - The Dodd Frank Act was signed into law in 2010 to regulate the financial derivatives market. The CFTC's execution of Dodd Frank Act has increased reporting requirements of entities engaged in financial swaps transactions.

Energy Storage – Different forms of battery storage for electricity. These include but are not limited to dam storage, pumped hydro storage, fly wheels, molten salt storage, and lithium ion storage.

Energy Information Administration (EIA) - Division of the US Department of Energy that conducts extensive statistical analysis and records historical production and usage data for a wide variety of energy products including but not limited to power, natural gas, crude oil, and refined products.

Endangered Species Act (ESA) - A 1973 Federal law, amended in 1978 and 1982, to protect troubled species from extinction. The National Marine Fisheries Service and U.S. Fish and Wildlife Service decide whether to list species as threatened or endangered. Federal agencies must avoid jeopardy to and aid the recovery of listed species. Similar responsibilities apply to non-Federal entities.

End-use consumer - Someone who uses electricity to run equipment or appliances, such as for space heating and cooling, ventilation, refrigeration, and lighting.

Energy efficiency – Reduction in energy use, production, or distribution as a result of greater efficiency. Can include changes, such as in commercial lighting, industrial processes, and irrigation practices, and introduction of more efficient equipment and household appliances to decrease the amount of electricity needed.

Energy load – The demand for power averaged over a specific time period.

Federal Columbia River Power System (FCRPS) - Thirty federal hydroelectric projects constructed and operated by the Corps of Engineers and the Bureau of Reclamation, and the Bonneville Power Administration transmission facilities.

Federal Energy Regulatory Commission (FERC) - US agency with oversight of interstate physical natural gas and power markets.

Financial Derivative - A financial instrument whose value is determined by the price of a commodity market index that typically reflects the price of a physical commodity.

Financing - The use of funds generated from borrowing or current revenues to pay for long-lived capital assets.

Firm energy - Energy that the supplier will make continuously available to the purchaser during the period covered by its contractual commitment, except for reasons of certain uncontrollable forces and force majeure events.

Firm capacity - Capacity whose availability is assured to the purchaser. The purchaser is usually required, under contract provisions, to replace the energy associated with the delivery of firm capacity.

Fixed costs - In accounting, operating expenses that do not vary with volume of activity or output, at least in the short run.

Firm load – The sum of the estimated firm loads of private utility and public agency systems, federal agencies, and BPA industrial customers.

Forward contract - A forward contract is an agreement to buy or sell a commodity for future delivery at predetermined time.

Fuel cell - An electrochemical cell that derives electrical energy directly from the chemical reaction of a fuel and an oxidant on a continuous basis. Chemical potential rather than thermal difference provides the driving force for this form of electrical energy production.

Fuel Conversion – Consumers' efforts to make a permanent change from electricity to natural-gas or other fuel source to meet a specific energy need, such as heating.

Greenhouse gases (GHGs) - Gases, including carbon dioxide (CO₂), methane (CH₄), nitrogen oxides (NO_x), nitrous oxide (N₂O), and water vapor (H₂O) that contribute to the greenhouse effect.

Grid Transformation – Technology and infrastructure investments in metering and grid investments to more efficiently use existing transmission capacity.

HDD - Heating Degree Day

Heavy Load Hours (HLH) - The hours in the peak period of high system demand, on BPA's system 6 a.m. to 10 p.m., Monday through Saturday, Pacific Prevailing Time (Pacific Standard Time or Pacific Daylight Time, as applicable). This definition is subject to change if the definition in the 1996 Wholesale Power and Transmission Rate Schedule changes.

Hydraulic Fracturing - The fracturing of rock by a pressurized liquid to extract crude oil, natural gas, and natural gas liquids.

Hydroelectric power - The electricity generated by using falling water to turn turbo-electric generators.

Hydrologic cycle - The continuous exchange of moisture between the earth and the atmosphere— evaporation, condensation, precipitation, stream runoff, absorption into the soil, and evaporation— in repeating cycles.

Incremental costs - The additional costs that a utility would incur by operating a power plant, the cost of the next kilowatthour or MMBtu generated or purchased, or the cost of producing and/or transporting the next available unit of energy above the current base cost previously determined.

Independent power producer (IPP) - A non-utility producer of electricity that operates one or more generation plants under the 1978 Public Utility Regulatory Policies Act (PURPA). Many independent power producers are cogenerators who produce power for their own use and sell the extra power to their local utilities.

Integrated Resource Plan - A utility plan that estimates the future long-term resource requirements given load projections, energy efficiency projections and available generation capacity.

Interconnection - 1) A system consisting of two or more individual power systems operating with connecting lines to make a larger system, thus permitting the sharing of generation reserves and providing alternative transmission paths to serve customers during line outages. 2) The connection between two power systems.

Interest expense - 1) interest charges based on the cost of borrowing funds. 2) In accounting, the total amount of interest charges recorded on debts for a specific period of time.

Interruptible Energy- Energy sold under terms that allow the supplier to terminate delivery.

Investor-owned utility (IOU) - A privately owned utility organized under State law as a corporation to provide electric power service and earn a profit for its stockholders. A private utility.

Kilowatt (kW) - An electrical unit of power; one kilowatt equals 1,000 watts.

Kilowatthour (kWh) - The common unit of electrical energy, equal to one kilowatt of power supplied to or taken from an electric circuit for one hour.

Kilovoltampere (kVA) - One kilovoltampere equals 1,000 voltamperes.

Least-cost planning - The method of meeting future energy needs by acquiring the lowest cost resources first, taking into account all possible means of meeting energy needs and all resource costs including construction, operation, transmission, distribution, fuel, waste disposal, end-of-cycle, consumer, and environmental costs.

Levelized costs - The expression of costs on an equal, per-unit basis, taking into account an appropriate interest rate. A home mortgage payment is an example of a levelized cost.

Linear regression analysis - The derivation of a mathematical relationship between dependent and independent variables based on a random sample of observations.

LNG – An abbreviation for “liquefied natural gas”. Natural gas is converted through intense pressure and cold temperature to liquid, for ease of storage or transport. Liquefied natural gas takes up about 1/600th the volume of natural gas at standard atmospheric pressure.

Load profiles - Information on the shape, or pattern, of customers’ demands for electricity over time.

Load shedding - The process of deliberately removing pre-selected loads from a power system, usually done automatically by relays, in order to maintain the integrity of the system under unusual conditions.

Losses - The general term applied to energy lost when operating a natural gas or electric system, occurring mainly as energy turns to waste heat in electrical conductors and apparatus.

Marginal cost -The cost of producing the marginal, or next, unit.

Mcf – A natural gas volumetric measurement representing one thousand cubic feet. Typically one Mcf is equal to approximately one MMBtu.

Megawatts (MW) - The electrical unit of power which is equal to 1,000 kilowatts, or 1,000,000 watts.

Megawatthours (MWh) - Electrical energy equal to one megawatt of power supplied to or taken from an electric circuit for one hour (1 MWh = 1,000 kWh = 1,000,000 watthours).

Metrics - Used to describe success measures for which progress toward achievement can be measured objectively. A Target is a specific measure used with a metric (see “Target” below).

Mid-Columbia - The section of the Columbia River from its junction with the Snake River up to Grand Coulee Dam. A Pacific Northwest market hub for wholesale power transactions.

Mid-Columbia Projects - The collective name for five privately owned dams on the mid-Columbia: Wells, Rocky Reach, Rock Island, Wanapum, and Priest Rapids.

Million acre-feet (Maf) - The volume of water needed to cover 1.233 square kilometers of land one kilometer deep or 1.233 km³ (one million acres of land one foot deep).

MMBtu – A measurement of energy content representing one million British thermal units. This unit of measurement is typically used as a unit price in wholesale natural gas markets.

Monte Carlo Simulation - A statistical technique that uses random events, or probability analysis, to simulate the outcome of a process

Municipality - A city-owned and -operated utility.

Municipally owned electric system - An electric utility system owned and/or operated by a municipality and engaged in serving residential, commercial, and/or industrial customers.

Municipalization – Initiative for a municipal area to seek to make its own electric utility owned by the city. This often requires a purchase of facilities from an investor owned utility.

National Ambient Air Quality Standards - Federal health-based standards on allowable ambient air concentrations for a set of known pollutants.

National Environmental Policy Act (NEPA) - A 1969 Federal law that requires evaluation of the environmental impact of Federally funded projects and programs. Generally requires an environmental assessment and/or an environmental impact statement be submitted to the Federal government before a project can begin.

National Marine Fisheries Service (NMFS) - An agency of the U.S. Department of Commerce that oversees ocean and river fish harvest limits and determines which stocks are to be listed as endangered or threatened under the Endangered Species Act.

National Rural Electric Cooperative Association (NRECA) - The national trade association for electric coops.

Net energy - The amount of energy available to the ultimate user compared to all the energy inputs involved in producing that energy.

Net metering – a tariff for a utility to buy back excess power a customer produces.

NIMBY (Not In My Backyard) - Actions taken by citizens or community groups to oppose actions in their community, such as opposition to construction of new transmission lines or a generating facility.

Nitrogen oxides (NOx) - Compounds produced by combustion, particularly when there is an excess of air or when combustion temperatures are very high. NOx are primary air pollutants.

Nominal dollars - Dollars spent that include inflation. Also known as current dollars.

Non-pipeline alternatives – Strategies to use natural gas more efficiently and site renewable natural gas and methane production sites effectively, so that new interstate pipeline capacity is not needed.

Non-wires alternatives – Strategies to use power more efficiently and site distributed energy effectively, to reduce the need to build new transmission lines.

North American Electric Reliability Council (NERC) - A council consisting of nine Regional Reliability Councils, encompassing virtually all of the power systems in the U.S. and Canada. Formed by the electric utility industry in 1968 and incorporated in 1975 to promote reliable and adequate supplies of bulk electric power.

Northwest Power Planning Council - An eight-member council, established by the Pacific Northwest Electric Power Planning and Conservation Act. Comprised of two voting members from the four Northwestern states—Washington, Oregon, Idaho, and Montana. Helps guide BPA and the region with planning for conservation and generation resources and for protection, mitigation, and enhancement of fish and wildlife in the Columbia River Basin.

Offpeak - Refers to a period of relatively low demand on a natural gas or an electric system. Typical offpeak hours are in the middle of the night. This can also refer to low demand months.

Onpeak - Refers to a period of relatively high demand on a natural gas or an electric system.

Operating Reserves - The unloaded generating capacity, interruptible load, or other on-demand rights that the customer is able to access within ten (10) minutes of a power system disturbance and that are capable of being used to serve load on a sustained basis for up to one (1) hour. Operating reserves includes both spinning reserves and non-spinning reserves. The Northwest Power Pool requires that each control area maintain an operating reserve obligation equal to at least 5 percent of hydro and 7 percent of thermal and other non-hydro on-line generation within the control area.

Opportunity cost - The net cost of a forgone opportunity, taking into account the benefits and costs of both the opportunity seized and the opportunity forgone for the period of analysis.

Option - An option can be used to reserve customers' right(s) to purchase energy at a specified price for a specified period of time in the future (call option); or to decrease the amount of power taken (put option).

Outage - In a power or natural gas system, a period, scheduled or unexpected, during which the transmission of power stops or a particular power-producing facility ceases to provide generation.

Pacific Northwest Conservation and Electric Power Plan - A 20-year power plan developed by the Northwest Power Planning Council and updated every other year. Proposes a comprehensive set of actions and projects to be undertaken to assure the region of adequate power resources, giving due consideration to conservation and fish and wildlife needs.

Pacific Northwest Coordination Agreement (PNCA) - A 1964 agreement among a group of U.S. utilities and agencies controlling power generating facilities in Washington, Oregon, and parts of Idaho, Montana, and California designed to make optimal use of the water and storage resources of the region.

Pacific Northwest Regional Preference Act - A 1964 Federal law (Public Law 88-552) that defines the Pacific Northwest region where customers have priority access to power marketed by BPA. Puts limits on BPA marketing by making any surplus energy sold outside the region recallable in 60 days.

PCA - An abbreviation for “Power Cost Adjustment”, a fuel cost recovery mechanism to allow an electric utility to recover purchased power and fuel. It is usually a mechanism that allocates costs and benefits between customers and the utility.

Peak capacity (peak load) - The maximum capacity of a system to meet loads. The maximum demand for power within a period.

PGA - Abbreviation for “Purchased Gas Adjustment” mechanism. This is a gas cost recovery mechanism for gas utilities.

Preference customers - Cooperatives or public bodies, such as municipalities and public utility districts, that by law have priority access to Federally generated power.

Preschedule - Amounts of energy (scheduled in MWs) to be delivered, established on the workday (i.e., day observed by all parties as a normal workday) prior to the day of delivery for all hours of the prescheduled day.

Present value - The value of current dollars of a flow of cash over time.

Public Power Council - An organization formed in 1966 to represent and advocate the common legal and technical interests of public (consumer-owned) utilities in the Northwest. Interacts with BPA, the Northwest Power Planning Council, and other regional and national groups on such issues as BPA rate proceedings, BPA power marketing policies, and conservation.

Public Utilities Holding Company Act (PUHCA) - A 1935 Federal law which seeks to control and limit the powers of large, national holding companies.

Public utility - A nonprofit utility that provides electric power service. Also see cooperative, municipality, public utility district.

Public Utility District (PUD) - A political subdivision, with territorial boundaries for an area wider than a single municipality and frequently covering more than one county, established by voters to supply electric or other utility service.

Public Utility Regulatory Policies Act (PURPA) - A 1978 Federal law that requires utilities to purchase electricity from qualified independent power producers at a price that reflects what the utilities would otherwise have to pay for the construction of new generating resources. Designed in part to encourage the development of small-scale cogeneration and renewable resources. Also see independent power producer.

Rate Design - The manner in which a utility recovers costs from customers. The rate design may include an energy rate (cost per unit), connection fee, base charge or other fixed cost fee.

Rate Mechanism - A rate structure for a utility's customers.

Real Dollars - Refers to prices or a data that have been adjusted for an inflation rate.

Real-Time Operations - The hourly operations of a power system as opposed to those operations that are prescheduled a day or more in advance.

Renewable Energy Credits (RECs) - Certification of "green power" (renewable energy). RECs can be purchased and sold as certificates, not tied to physical power (called financial "RECs"). There are many regional and state RECs markets, so not all RECs certificates have equal value.

Renewable Natural Gas - Natural gas that is extracted from methane-emitting facilities such as landfill, waste processing, and other sites. It is cleaned to be used in pipelines and gas distribution systems and is an alternative to wellhead natural gas production.

Renewable Portfolio Standards (RPS) - State determined renewable energy targets for utilities.

Return on Equity (ROE) - The amount of net income earned as a percentage of shareholder equity.

Scrubber - A type of air pollution control device often installed in coal generating facilities.

Site restoration - The return to original or natural or enhanced natural condition of a locale that has been used or proposed to be used for some human enterprise.

Situational assessment - an environmental scan of what is happening outside the organization.

Smart meters - Utility meters capable of two-way communications from the customer's site. Consumption data is captured in hourly or shorter time increments and communicated back to the utility.

Snowmelt - Water from melting snow.

Snow water equivalent - In forecasting, a measure of the amount of water expected from the spring melting of snowpacks.

Solar energy - The heat or electricity produced from sunlight. Also see active solar system, passive solar.

Spot market - A temporary market for electricity based on short-term supply and demand.

Spot-market price - The market price for a sale of surplus power for which the buyer and seller have no long-term obligations; often made on an hourly or weekly basis.

Stress-test - A test to simulate the effect of an extreme event on a portfolio.

Substation - A non-generating electrical power station that serves to transform voltages to higher or lower levels, and serves as a delivery point to individual customers such as utilities or large industries. BPA grid has more than 400 substations. Also see switching station.

Success Measures - Method to measure the success of implementing the Strategic Plan's Action Plans.

Sulfur dioxide (SO₂) - One of the gases composed of sulfur and oxygen produced by the combustion of fuels containing sulfur. Also a key ingredient in the formation of smog and acid rain.

Thermal resource - A generating plant that converts heat energy into electrical energy, by the burning of coal, oil, or gas, or by nuclear fusion.

Threatened species - As defined in the Endangered Species Act, those species likely to become endangered within the foreseeable future throughout all or a significant portion of their range.

Time of Use Rates - Rate tariffs that provide price signals to customers, to encourage demand shifting or demand reduction during high priced hours of the day.

Timeline - Schedule for the execution of the Strategic Choices. This would include major stages of implementation, key decision points, and dates for completion of deliverables.

Transactive energy – Refers to an electric grid structure, where software, systems and technology can efficiently balance the grid on a short-term basis. Can include but is not limited to meter technology, distributed generation, demand response programs, time of use rates, and other financially incentivized programs or products to balance the system real-time.

Transformer - A device for transferring electrical energy from one circuit to another by magnetic induction, usually between circuits of different voltages.

Transmission grid - An interconnected network of transmission lines including associated equipment for the transfer of electric energy in bulk between points of supply and points of demand.

Transmission line - A high-voltage, extra-high-voltage, or ultra-high-voltage power line used to carry electric power efficiently over long distances.

Turbine - An enclosed rotary type of prime mover that drives an electric generator to produce power.

Transmission Losses - The amount of energy lost as power is transmitted.

U.S. Army Corps of Engineers (Corps of Engineers, Corps, COE) - The builder and now the owner-operator of many of the Federal dams in the Columbia River Basin (as well as elsewhere in the U.S.).

U.S. Environmental Protection Agency (EPA) - The Federal agency created in 1970 to permit coordinated and effective governmental action for protecting the environment by the systematic abatement and control of pollution by integrating research, monitoring, standard setting, and enforcement activities.

U.S. Fish and Wildlife Service (FWS) - An agency within the Department of the Interior responsible for guiding conservation, development, and management of U.S. fish and wildlife resources.

Utility - A public or private organization created for the purpose of selling or supplying for general public use water, electric energy, telephone service, or other items or services.

Variable costs - 1) In accounting, costs that fluctuate in relation to changes in output or activity level.

Variable energy resource (intermittent resource) – An electric generating source with output controlled by the natural variability of the energy resource rather than dispatched based on system requirements. Intermittent output usually results from the direct, non-stored conversion of naturally occurring energy fluxes such as solar and wind energy.

Volatility - A measure of the rate and velocity at which market prices move up and down.

Water conditions - The overall supply of water to operate the Pacific Northwest hydroelectric generating system at any given time, taking into account reservoir levels, snowpack, needs to provide water to meet various operating constraints and weather conditions.

Water year - One hydrologic cycle from October 1 through September 30.

Watt (W) - 1) The electrical unit of power. 2) The rate of energy transfer when one ampere is passing across one volt. Analogous to horsepower or footpounds per minute of mechanical power (one horsepower is equivalent to approximately 746 watts; one kilowatt equals 1,000 watts; one megawatt equals 1,000,000 watts). A 100-watt light bulb requires 100 watts of electricity to operate.

Weatherization - The use of such structural changes as ceiling, attic, and floor insulation; storm windows; weatherstripping; and caulking in order to decrease use of heating fuel.

Western Power Pool (WPP) - A regional cooperative power operating and planning group, formed in 1941 with representatives from the U.S. Army Corps of Engineers, Bureau of Reclamation, BPA, and the region's public and private utilities with generating resources; coordinates river flows and operations to supply power in the most economical manner for combined load requirements. Previously referred to as Northwest Power Pool (NWPP).

Western Systems Coordinating Council (WSCC) - A group that seeks coordination of power supply and transmission systems in the western U.S. to promote reliability. The WSCC encompasses 80 percent of the electric power generation in the western U.S. Also see North American Electric Reliability Council.

Wind power - The energy extracted from wind to generate electricity; generally requires wind speed in excess of 16 kilometers per hour (10 miles per hour).

Zonal heating system - A heating system for buildings, which may be installed in or on the floors, walls or ceiling. Individual and independently operated resistance heaters heat the surrounding area, or zone.