

July 9, 2024

MEMORANDUM

То:	Sustainability, City Light, Arts and Culture Committee
From:	Eric McConaghy, Analyst
Subject:	City Light's Wholesale Energy Risk Management Policy Update (RES 32130)

On Monday, July 15, 2024, the Sustainability, City Light, Arts and Culture Committee (Committee) will discuss <u>Resolution (RES) 32130</u> and proposed amendments to the resolution. RES 32130 would adopt an update to Seattle City Light's (SCL's) Wholesale Energy Risk Management (WERM) Policy.

City Light briefed the Committee on March 13, 2024, on the WERM Policy update. Since then, Central Staff and City Light Risk Oversight staff have cooperated to revise the update to the WERM Policy to better incorporate Council's interests. The amendments would replace the updated WERM Policy as introduced (Version 1) with a revised version (Version 2) and would modify recital language in the resolution to correspond with this new version. See Attachments 1 and 2 to this memo.

This memo provides (1) background on the WERM Policy; (2) a description of Version 2 of the WERM Policy update; and (3) the amendments to RES 32130 for the Committee's consideration.

Background

City Light faces significant uncertainty regarding both the quantity of energy, or supply, available to the utility and the prices prevailing in the wholesale energy market. The uncertainties in quantity and price of electrical energy result in financial risk for the utility and its customers.

City Light meets the electricity demands of its retail customers (rate payers) with the electricity City Light supplies from its own generating facilities and with electricity that City Light purchases wholesale from various parties.

City Light's supply of power resources is overwhelmingly generated by hydropower (about 88 percent) and approximately 50 percent of that is supplied by four (of its total seven) hydroelectric projects owned and operated by City Light. Most of the remaining hydropower is purchased utilizing a combination of long-term/short-term contracts and other market transactions.

Hydroelectric output of electricity varies by season in relatively predictable patterns and by specific weather at all times of the year. Hydropower generation is also limited by operating restrictions related to factors such as: downstream flow, fish habitat conditions, recreational opportunities, and management of generation system components.

City Light can generate electricity in surplus of its needs to meet retail customer demand throughout most, but not all, of the year. City Light sells this surplus in the wholesale market and uses the resulting revenue to offset costs that would otherwise be borne by City Light's retail customers through higher electricity rates.

City Light purchases wholesale electricity to meet retail customer demand that exceeds supply when hydropower is limited, typically during December and from mid-July to mid-September. Not surprisingly, City Light's retail demand and wholesale demand both vary seasonally and may vary significantly due to extreme weather. Although, in recent years, climate change has significantly impacted this seasonal pattern including the overall generation from its hydro facilities.

To directly address the significant uncertainty regarding both the quantity of energy available to the utility (due to its reliance on hydroelectric generation and varying demand) and the prices prevailing in the wholesale power market, City Light buys and sells physical energy (electricity) and associated products in the wholesale energy markets. While City Light's principal objective is to ensure that it meets its retail customer demand obligation, it tries, when possible, to do so in a way that generates additional value from its generation portfolio, with due consideration of risk.

Utility industry best practices require that City Light adheres to a clear and binding policy to manage these risks and that City Light's independent governing body adopt, and City Light's GM/CEO endorses the policy. Consistent with best practice, Council first adopted the WERM Policy on September 8, 2008, by Resolution 31053.

Periodic review and amendment of risk management policies are essential for good governance and oversight. Therefore, City Light and the Mayor have proposed, and the Council has adopted updates to WERM Policy via five, separate resolutions since initial adoption, most recently via <u>Resolution 31616</u> in 2015.

Amendments to Resolution 32130

The City adopted the original WERM Policy in the aftermath of the Western Energy Crisis. In the more than twenty years since the West Coast energy crisis led to a comprehensive review of City Light's risk management practices, the utility has developed a sophisticated and well-balanced set of internal roles and committee structures to ensure that appropriate risk policies are developed, implemented, and monitored.

As noted above, during that period City Light has proposed and Council has adopted a number of updates since the policy was first established. These updates have come in tandem with the development of City Light's financial risk management capability.

Consistent with this practice, City Light recently proposed a set of revised policies (Version 1). This revision included a suite of technical changes. Central Staff has reviewed these changes and generally found them appropriate to the current state of City Light's financial risk management.

At the same time, and as described below, Central Staff identified a number of modifications that we thought would help enhance Council's oversight role in City Light's approach to risk management. In collaboration with City Light Risk Oversight, Central Staff revised the utility's proposal to make those changes, as well as to reorganize and clarify portions of the WERM Policy.

Most significantly, City Light's original proposal would have removed Council's final authority to adopt amendments to WERM Policy. Version 2 includes policy language to maintain Council's oversight as the governing body for City Light consistent with best practices. In addition, Version 2 includes policy language to require reporting and auditing commensurate with the technical flexibility granted to City Light Risk Oversight in the updated WERM Policy.

Through a collaborative process, Central Staff and City Light Risk Oversight reworked aspects of the Policy in this regard. Version 2 would:

- 1. Maintain Council's authority to adopt amendments to the WERM Policy as in current policy but not included in Version 1;
- 2. Specify the minimum details of regular financial risk status reports to Council and their frequency;
- 3. Require internal auditing of City Light's risk management practices annually;
- 4. Require need assessment and scoping for independent audit of City Light's risk management practices every five years; and
- 5. Establish an affirmative responsibility of City Light's General Manager/ Chief Executive Officer, Chief Financial Officer, Director of Risk Oversight, and City Light's internal audit team to report to the City Council and the Mayor any failure to implement WERM Policy that has created a significant and material financial risk to City Light.

The reporting and auditing requirements were added and/or modified to ensure that Council has a mechanism for ensuring City Light's ongoing compliance with what have become a very technical set of requirements. The Council and its staff cannot realistically be experts in these technical nuances, so it makes sense to invoke and require reviews by subject matter experts. The affirmative reporting requirement reinforces this basic approach.

Council Action on Resolution 32120

On July 15, the Committee may vote on two amendments to Resolution 32130 sponsored by Councilmember Woo. Amendment 1 would replace the transmitted version of the WERM Policy (Version 1) with Version 2, described on page three.

Amendment 2 would revise the language of recitals in RES 32130 to accurately describe the effects of Version 2. The Committee should only consider this amendment if the Committee approves Amendment 1 to RES 32130.

Next Steps

If the Committee votes to approve adoption of RES 32130 as transmitted or as amended in Committee on July 15, then Council could take final action on the legislation as soon as July 23.

Attachments:

- 1. Amendment 1 to RES 32130: Replace Version 2 for Version 1 of WERM Policy Update (WERM Policy, Version 2, attached)
- 2. Amendment 2 to RES 32130: Modify Recitals Corresponding to Version 2
- cc: Ben Noble, Director Yolanda Ho, Lead Analyst

CS Memo Attachment 1 – Amendment 1to RES 32130

Amendment 1 Version 1 to RES 32130 - SCL WERM Policy RES

Sponsor: Councilmember Woo

Replace Version 1 of Attachment 1 with Version 2

Effect: This amendment would replace Attachment 1 to Resolution 32130 with a revised version of the attachment. Specifically, this would replace Version 1 of the Wholesale Energy Risk Management (WERM) Policy with Version 2. Version 2 is attached to this amendment.

In collaboration with City Light Risk Oversight, Central Staff composed Version 2 to enhance Council's oversight of City Light's wholesale energy risk management, as well as to reorganize and clarify portions of the WERM Policy compared to Version 1.

City Light's original proposal would have removed Council's final authority to adopt amendments to WERM Policy. Version 2 includes policy language to maintain Council's oversight as the governing body for City Light consistent with best practices. In addition, Version 2 includes policy language to require reporting and auditing commensurate with the technical flexibility granted to City Light Risk Oversight in the updated WERM Policy. Version 2 would:

- 1. Maintain Council's authority to adopt amendments to the WERM Policy as in current policy but not included in Version 1;
- 2. Specify the minimum details of regular financial risk status reports to Council and their frequency;
- 3. Require internal auditing of City Light's risk management practices annually;
- 4. Require need assessment and scoping for independent audit of City Light's risk management practices every five years; and
- 5. Establish an affirmative responsibility of City Light's General Manager/ Chief Executive Officer, Chief Financial Officer, Director of Risk Oversight, and City Light's internal audit team to report to the City Council and the Mayor any failure to implement WERM Policy that has created a significant and material financial risk to City Light.

Attachment 1 – WERM Policy, Version 2





WHOLESALE ENERGY RISK MANAGEMENT POLICY

2024

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DOCUMENT REVIEW HISTORY

Date	Reviewed by	Document Approved Y/N	Version No.	Reference Documents
08/06/2008	ROC	Y	2008 v1	Electronic Vote:
09/08/2008	Seattle City Council	Y	2008 v1	Resolution #31053
07/05/20010	ROC	Y	20010 v1	Electronic Vote:
08/11/2010	Seattle City Council	Y	2010 v1	Resolution #31230
05/01/2012	ROC	Y	2012 v1	ROC Meeting
05/14/2012	Seattle City Council	Y	2012 v1	Resolution #31053
03/12/2013	ROC	Y	2013 v1	Electronic Vote:
09/16/2013	Seattle City Council	Y	2013 v1	Resolution #31467
09/23/2015	ROC	Y	2013 v2	Electronic Vote:
10/05/2015	Seattle City Council	Y	2015 v2	Resolution #31616
05/03/2019	ROC	Y	2019 v2	Electronic Vote
07/11/2024	ROC	Y	2024 v2	Electronic Vote
Date TBD	Seattle City Council	Y	2024 v2	Resolution 32130

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PREAMBLE

The Seattle City Light (City Light) Department's Risk Oversight Division (ROD) in collaboration with City Council Central Staff composed the following Wholesale Energy Risk Management Policy ("WERM Policy" or "Policy"). The WERM Policy provides the risk management governance framework for City Light in its objective to mitigate risks resulting from its necessary participation as a buyer and seller of wholesale energy and related products.

City Light's Risk Oversight Council (ROC) approved the WERM Policy, the City Light General Manager/Chief Executive Officer (GM or GM/CEO) endorsed them, and the Council adopted them via resolution with the Mayor concurring. After adoption, the Director of Risk Oversight ("Director") made the WERM Policy effective.

The Director has distributed the effective WERM Policy internally within the City Light Department, to the Seattle City Council ("Council"), the Mayor's Office, and with others that may be affected by their implementation.

Raman Vishwanathan Director of Risk Oversight Seattle City Light Effective Date: TBD

WERM POLICY OVERVIEW

Background and Purpose

City Light faces significant uncertainty regarding both the quantity of energy, or supply, available to the utility and the prices prevailing in the wholesale energy market. The uncertainties in quantity and price of electrical energy result in financial risk for the utility and its customers.

City Light meets the electricity demands of its retail customers with the electricity City Light supplies from its own generating facilities and with electricity that City Light purchases wholesale from various parties. City Light is the 10th largest public utility in the United States and the first municipal utility in the US to own and operate a hydroelectric facility.

City Light's supply of power resources is overwhelmingly generated by hydropower (about 88 percent) and approximately 50 percent of that is supplied by four (of its total seven) hydroelectric projects owned and operated by City Light. Most of the remaining hydropower is purchased utilizing a combination of long-term/short-term contracts and other market transactions.

Hydroelectric output of electricity varies by season in relatively predictable patterns and by specific weather at all times of the year. Hydropower generation is also limited by operating restrictions related to factors such as: downstream flow, fish habitat conditions, recreational opportunities, and management of generation system components.

City Light can generate electricity in surplus of its needs to meet retail customer demand throughout most, but not all, of the year. City Light sells this surplus in the wholesale market and uses the resulting revenue to offset costs that would otherwise be borne by City Light's retail customers through higher electricity rates.

City Light purchases wholesale electricity to meet retail customer demand that exceeds supply when hydropower is limited, typically during December and from mid-July to mid-September. Not surprisingly, City Light's retail demand and wholesale demand both vary seasonally and may vary significantly due to extreme weather. Although, in recent years, climate change has significantly impacted this seasonal pattern including the overall generation from its hydro facilities.

To directly address the significant uncertainty regarding both the quantity of energy available to the utility (due to its reliance on hydroelectric generation and varying demand) and the prices prevailing in the wholesale power market, City Light buys and sells physical energy (electricity) and associated products in the wholesale energy markets. While City Light's principal objective is to ensure that it meets its retail customer demand obligation, it tries, when possible, to do so in a way that generates additional value from its generation portfolio, with due consideration of risk.

Utility industry best practices require that City Light adheres to a clear and binding policy to manage these risks and that City Light's independent governing body adopt, and City Light's GM/CEO endorses the policy. Consistent with best practice, Council first adopted the WERM

Policy on September 8, 2008, by Resolution 31053.

Periodic review and amendment of this WERM Policy is essential for good governance and oversight. This update includes:

- reorganizing and clarifying policy statements;
- reinforcing the process to amend the Policy;
- separating WERM Policy from City Light's WERM Procedures that implement the Policy;
- revising the timing and reporting requirements of internal and external audits of City Light wholesale energy risk management; and
- establishing an affirmative responsibility of the GM/CEO, the Chief Financial Officer (CFO), Director, and City Light's internal audit team to report the City Council and the Mayor any failure to implement WERM Policy that has created a significant and material financial risk to City Light.

The updated WERM Policy is organized into the following sections:

- Scope;
- Objectives for Wholesale Energy Transacting;
- Roles, Responsibilities and Organization;
- Identify Risk and Establish Risk Limits;
- Monitoring and Compliance;
- Reporting;
- Auditing and Management Oversight;
- Amendments to WERM Policy; and
- WERM Procedures

The basic structure of the WERM Policy defines a set of minimal organizational and operational requirements for City Light; documents a set of internal reporting and external auditing standards to ensure compliance with those requirements; and lastly, describes how the WERM Policy will be implemented and how it can be modified when circumstances so dictate.

POLICY FRAMEWORK

1. Scope

Seattle City Light (City Light) experiences imbalances between retail customer demand for electricity and the utility's power supply and therefore must transact in the wholesale energy markets for energy services and products to reliably serve its customers. The WERM Policy is the City's plan of action for City Light to mitigate financial risk resulting from City Light's necessary participation as a buyer and seller of wholesale energy and related products.

1.1: WERM Policy applies to all wholesale trading activities

The WERM Policy applies to the entirety of City Light's wholesale market activities entered under the authority of Seattle Municipal Code (SMC) 21.49.130. The activities included in the WERM Policy and identified as "wholesale energy" include all energy/power, transmission capacity, ancillary services (spin/non-spin reserves, frequency response, ramping up/down, etc.), all structured transactions with various components of energy, transmission & ancillary services, weather derivatives (if any), all tradeable products with environmental attributes (e.g., RECs, carbon, or other offsets). All the above are for any term including long-term contracts.

2. Objectives for Wholesale Energy Transacting

The basic objectives of City Light's energy transactions are to meet its customers' energy needs in a cost-effective manner but do so within the context of uncertain energy generation and complex wholesale energy markets that can add significant financial risk.

2.1: Meet Retail Customers' Demand

City Lights transacts in wholesale energy markets as authorized by Seattle Municipal Code 21.49.130 to ensure sufficient supply of energy resources to meet retail customers' demand for electricity continuously and reliably for electricity at the lowest possible cost. 2.2: Seek Fair Value for Assets

When transacting in wholesale energy markets, City Light shall seek to obtain the best possible value for the wholesale energy and related assets under its control, including:

- 1. energy/power;
- 2. transmission capacity;
- 3. ancillaries (spin/non-spin reserves, frequency response, ramping up/down, etc.);
- 4. all structured transactions with various components of energy; transmission & ancillaries;
- 5. weather derivatives (if any); and
- 6. all tradeable products with environmental attributes (e.g., RECs, carbon, or other offsets).

All the above apply to transactions of any term, including long-term contracts as authorized by ordinance. In seeking the maximum value of its energy-generating and transmission assets, City Light will consider all relevant financial risks, operational, maintenance, and capital costs

related to the transactions, and overall market conditions.

3. Roles, Responsibilities, and Organization

In the more than twenty years since the West Coast energy crisis led to a comprehensive review of City Light's risk management practices, the utility has developed a sophisticated and wellbalanced set of internal roles and committee structures to ensure that appropriate risk policies are developed, implemented, and monitored. As described in this document, the current WERM Policy acknowledges the importance of these roles and structures, as well as the interplay among them, and formally establishes their ongoing performance as a fundamental requirement for City Light.

3.1: Segregation of duties, lines of reporting and incentives

One of the most basic and fundamental best practices in managing risks is to formally separate risk-related responsibilities that can stand in conflict with one another.

The "Front-Middle-Back Office" model standard in the electrical utility industry provides for segregating Wholesale Marketing activities into Power Marketing ("Front Office"), Risk Oversight & Wholesale Settlement ("Middle Office"), and Accounting ("Back Office") functions. Accordingly, City Light should clearly segregate duties, lines of reporting, and incentives between and among these three functions.

At City Light, the Power Supply Business Unit (PSBU) has the role of the Front Office. This cross functional office is responsible for Hedging Strategy and Planning development, market analytics, hydrological forecasting, transaction execution, deal entry, administration of contracts relating to long-term resources, including Renewable Energy Credits and Carbon products, for originating, tracking, and managing all long-term contracts throughout the transaction life cycle. Power Operations and Marketing is the group within the PSBU that transacts in the wholesale energy markets as needed to balance the supply of electricity energy to demand and to mitigate the risks inherent in managing the system. The PSBU is led by the Power Supply Officer (PSO).

The Risk Oversight Division (ROD) serves as the Middle Office. It provides day-to-day continuous independent risk management and oversight functions at City Light. Some of the group's responsibilities include reviewing and valuing transactions, developing and using quantitative tools and models for portfolio optimization and transactions evaluation, development of appropriate risk metrics, validation of all models that have the potential to impact power marketing decisions, managing credit risks, supporting wholesale settlements, wholesale deal valuation and transaction review. The Director reports directly to the CFO and to the GM/CEO on a regular basis.

The Back Office is comprised of a section of the Accounting Division. It is responsible for liaising with City treasury, transaction billings/ invoicing, receipts, and payments administration.

The subsections that follow provide additional detail and specific requirements regarding these relative roles, with a specific emphasis on the Middle Office's risk management duties.

3.2: ROC Risk Oversight Council (ROC)

While the day-to-day work of the Front, Middle, and Back offices must be segregated, City Light's senior management must maintain a view across all these functions and must ensure that they are functioning effectively and efficiently. Accordingly, the GM/CEO shall establish and maintain the Risk Oversight Council (ROC) as the body made up of senior City Light managers with authority and responsibility for implementing the WERM Policy and leading City Light's energy risk management efforts on a path of continuous improvement.

The ROC shall be comprised of officers, directors and managers from work groups directly related to wholesale energy trading activities and shall comprise of voting and non-voting members, each having a single vote on matters that are put forward at ROC for decision. In case of a tie or other unresolved circumstances, the GM/CEO shall have the veto to override a decision or break a stalemate. In cases where a member of the ROC leaves the employment of City Light, the Chair of ROC or the GM/CEO will resolve the ROC vacancy by making an interim appointment at his/her discretion. The GM/CEO will reassign as appropriate the ROC membership to a different City Light manager position to correspond with any reorganization of City Light and/or the assigned responsibilities of one of the positions that serves on the ROC.

The Director will act as secretary to the ROC or will delegate such responsibilities and will document all meetings and actions taken by the ROC in meeting minutes that will be distributed to ROC members for their review and acceptance. The Chief Financial Officer will officiate as the acting-chair in the absence of the Chair. Notes/Minutes approved by the ROC will be distributed by the Director to the GM/CEO, ROC members, and made available to the Mayor's Office, and the City Council.

The responsibilities of the ROC include but are not limited to the following:

- 1. Review and approve wholesale transactions as outlined in the WERM Procedures Manual ("Procedures Manual") that supports the Policy;
- 2. Commission and review the Procedures Manual associated with this Policy and changes to it;
- 3. Review and approve transactions outlined in the Procedures Manual, including hedging strategies, implemented by the PSBU;
- 4. Approve, upon the recommendation of the ROC chair, the methodology used to establish counterparty credit limits;
- 5. Monitor and assess compliance with this Policy and associated procedures;
- 6. Discuss and approve exceptions to risk metrics and limits, when appropriate;
- 7. Discuss and resolve Policy and Procedures violations or exceptions and take corrective action to minimize related losses or increased risks as appropriate;
- 8. Review this Policy each year and inform the GM/CEO of any changes by July 1st;
- 9. Discuss elements of wholesale energy risk management best practices and develop a City Light opinion of their specific practicality;
- 10. Conduct other activities relevant to the implementation and oversight of this Policy and related Procedures;
- 11. Provide a timely summary of ROC accomplishments for the past year and setting of goals for the upcoming year to the GM/CEO by end of the first quarter of the calendar

year;

- 12. Ensure the continual improvement in City Light's risk management, risk analytics and oversight functions; and
- 13. Review and approve expected, recurring, and material changes to all modeling inputs and methodologies related to wholesale trading activities to ensure that market, operational and credit risks are accurately quantified.

3.3: Director of Risk Oversight ("Director")

The Director serves as the head of City Light's Risk Oversight Division, which in turn functions as the Middle Office within City Light's overall management structure. The Director reports directly to the CFO and a has dotted-line reporting responsibility to the GM/CEO to ensure independent direct reporting and that they have a path to directly raise any issues of significant concern. The Director's responsibilities include leading the ROC and communicating with CFO and PSO, setting limits on risk and credit thresholds, and suspending counterparty transactions.

Regarding wholesale energy risk management efforts, the Risk Oversight Director's responsibilities include but are not limited to the following:

- 1. Serve as the Chair of the ROC and lead meetings;
- 2. Report to the GM/CEO, the Mayor's Office and the City Council on City Light's risk exposure and ROC actions on a regular basis and/or as-requested;
- 3. Engage the City Light Internal Audit team or other external auditor to conduct an independent assessment of this Policy, the related procedures document and adherence to this Policy & Procedures annually;
- 4. Facilitate reporting of audit findings and recommendations to the GM, the Mayor's Office, and the City Council within one quarter of audit completion;
- 5. Ensure that portfolio risks are computed at prescribed frequency, and that they are communicated to all relevant stakeholders in a timely manner to facilitate business decisions;
- 6. Ensure development of appropriate risk control and reporting protocols and any exceedances are communicated to ROC;
- 7. As necessary, along with the PSO, review, revise and recommend the revised WERM Procedures for ROC approval;
- 8. Recommend to CFO, for approval, counterparty credit limit threshold defined as the maximum secured and unsecured credit limit that may be extended to any individual counterparty;
- 9. Recommend to CFO and to ROC the methodology used to establish appropriate credit for counterparties; and
- 10. Suspend transacting with a counterparty at any time due to concerns about the counterparty's creditworthiness or ability to fulfill the terms of a proposed or pending transaction and inform CFO and ROC.

3.4: General Manager/Chief Executive Officer (GM/CEO)

While the current policies call for the GM/CEO to delegate significant responsibilities to the ROC and the Risk Oversight Director, the GM/CEO still has the fundamental responsibility of

ensuring City Light's compliance with WERM Policy. The GM/CEO's responsibilities related to compliance include but are not limited to the following:

- 1. Ensuring adequate internal controls exist to safeguard City Light's financial integrity and its retail customers with respect to wholesale energy purchases and sales activities;
- 2. Maintaining an organizational structure that ensures that all wholesale energy activities are monitored by City Light staff not directly involved in executing the transaction;
- 3. Resolving ROC vacancies in the best interests of the Utility while preserving the segregation of duties necessary for adequate oversight;
- 4. Making final decisions on risk management issues; and
- 5. Reviewing and endorsing the recommendations for Policy amendments to the City Council as presented by the ROC.

At the time of the adoption of this version of the WERM Policy, City Light has organized the risk management structure of the Wholesale Energy activities at City Light as shown in the figure below. This figure will be updated as necessary.



4. Identify Risk and Establish Risk Limits

By participating in the wholesale energy markets, City Light is exposed to, and needs to manage, a variety of financial risks including:

• Market Risk – this risk reflects uncertainty of City Light's financial performance due to uncertainty in commodity markets (i.e., "market price risk" and "market liquidity risk") and uncertain price relationships (i.e., "correlations", "basis risk" and "curve risk").

- Volumetric Risk the risk of financial loss due to unpredictable variations in the output of the generation fleet or in retail demand;
- Credit/Performance Risk the risk of financial loss due to default or failure by counterparties to perform on contracts;
- Modeling Risk the risk of financial loss due to a potentially inaccurate or incomplete characterization of a transaction or portfolio elements due to a fundamental failure of models and/or information systems to match reality sufficiently well; and
- Operations Risk the risk of financial loss due to physical assets failing to perform or human error.

Note that these risks have all been characterized as "financial" because the policy assumes that any shortfall in the supply of power that results from any of these risks will be addressed by the purchase or sale of power from the wholesale markets, and thus be resolved at some direct financial cost. A comprehensive risk management strategy is essential to address each of these potential sources of uncertainty.

4.1: Establish Risk Limits

Accordingly, City Light's ROC shall establish and approve risk limits for each quantifiable risk factor identified above. These limits will be documented in the Procedures Manual, see below Policy Section 9.1. Exceptions to these requirements shall only be available via ROC's approval, see Policy Section 3.2.

5. Monitoring and Compliance

As detailed below in Policy Section 6, the current policies include specific external reporting requirements and require a regular cycle of internal and external audits to ensure City Light's overall compliance. However, from a day-to-day operational perspective, the risk limits that will be established under Policy Section 4.1 are only valuable if City Light is regularly tracking its performance relative to these requirements. Accordingly, City Light shall develop appropriate tools for measuring, monitoring, and reporting compliance with established risk limits, and addressing circumstances when the utility temporarily falls out of compliance. The associated Procedures Manual should clearly outline such models, methods and reporting requirements.

In addition, to ensure City Light maintains ongoing compliance, City Council will rely upon both internal and external audits, when deemed necessary, to assess the performance of City Light's risk and power management activities and report any significant findings and recommendations.

5.1: Monitor Compliance

City Light will conduct wholesale transactions in energy and related products with full awareness of its current positions in all traded products. This includes understanding the resulting risk exposure and the implications of its hedging activities.

City Light shall use appropriate models and methodologies to derive metrics applicable to assess the effectiveness of hedging strategies and to measure compliance with the relevant risk limits. City Light shall specify, measure, monitor and report on these metrics for assessing City

Light's market risk on a regular basis. Section 6 details specific reporting requirements.

5.2: Remedy Non-Compliance

In the event of non-compliance, City Light will inform Internal Audit and shall take immediate remedial measures to mitigate risks and/or provide necessary exceptions and prevent recurrence where appropriate. This may involve unwinding non-compliant positions, revising trading strategies, or adjusting risk limits.

Additionally, when severe non-compliance events occur, a thorough investigation should be conducted to identify the root cause of the non-compliance, followed by implementing corrective actions and enhancing internal controls.

Disciplinary actions, as deemed by ROC and GM/CEO, may also be considered for individuals responsible for breaches to reinforce the importance of compliance within the organization. Regular reviews and updates to Procedures Manual will ensure it remains effective and aligned with evolving market conditions and regulatory changes.

5.3: Provisions for Exceptions

There may be circumstances where non-compliance is necessary for City Light to meet its primary objective of serving load or to avail it of fair value for its customers. In such cases, the ROC can authorize temporary exceedances of established risk limits to ensure the reliable supply of electricity and that fair value is obtained for customer owned assets. These exceptions should be justified with reasoning of the necessity documented and expected duration of the exceedance. The ROC should closely monitor these situations and ensure that any risks are managed prudently. Once normal conditions are restored, City Light should promptly return to full compliance with the risk management policy.

6. Reporting

At present, City Light produces a bi-weekly report that summarizes City Light's current risk profile and the steps that have been taken to manage and mitigate these risks. This report provides the timely information that both City Light senior management and City Council staff need to track the performance of the utility's risk management structures and policies. Thus, ongoing access to this report is essential for ensuring that the policies set out here are being followed and appropriately implemented.

6.1: Reporting

The Director shall ensure that City Light prepares a periodic Risk Oversight Status Report, consistent in format and content with the example attached here as Exhibit 1. The Report shall include Policy and Procedure compliance, violations or exceptions from established risk limits, remedial action for non-compliance, resources and expected load, and forward positions with appropriate comparison between two reporting periods to show changes and/or trends in portfolio risks.

The Director or designee shall make available written and electronic copies of the current Report, immediately as it is published, to the Chair of the Sustainability, City Light, Arts and

Culture (SCLAC) Committee or its successor Council committee with City Light oversight and to relevant Council Central Staff. The ROD shall notify the Chair and relevant Council Central Staff of the availability of the current Report and include in that notification a summary of the current Report's findings.

7. Auditing and Management Oversight

To ensure that City Light maintains ongoing compliance, the City Council and Mayor will rely upon regular audits, both internal and external, to assess the performance of City Light's risk management activities. In addition, the City Council and Mayor will rely upon an affirmative responsibility of the GM/CEO, CFO, Director, and City Light's internal audit team to report any significant failures to fully implement the WERM policies. While the required audits can provide an objective assessment of such policies and procedures, ongoing management oversight and reporting obligations will ensure that the overall wholesale trading operations align with the established policies and other regulatory requirements. This dual approach not only safeguards the integrity of the established processes but also enhances transparency and accountability.

7.1: Internal Audit

Seattle City Light Internal Audit provides an independent and objective evaluation of City Light's operations. Internal Audit helps City Light achieve its objectives, comply with established rules and regulations, and improve its risk management, control, and governance processes. Internal audit reports are presented to senior management and may include recommendations for improvement. City Light's Internal Audit currently follows the standards set forth by The International Professional Practices Framework (IPPF) supported by The Institute of Internal Auditors (IIA).

City Light's Internal Audit Team will conduct an annual audit of the wholesale energy activities to ensure compliance with the WERM Policy and the associated Procedures. Using a risk-based approach Internal Audit will review current policies and procedures approved by City Light's ROC and identify areas to test for and collect evidence documenting compliance. Additionally, Internal Audit will review key information technology (IT) controls related to the Energy Trading and Risk Management (ETRM) application. These reviews may include but are not limited to the following areas:

Policy Compliance:

- Management Oversight and Authority
- Monitoring and Communication
- Transaction Limits
- Credit Management
- Separation of Duties
- Model Validation
- Record Documentation and Reporting

Energy Trading Risk Management (ETRM) System Review

- Vendor Management
- Access Controls
- Change Management

- Data Input Controls
- Business Continuity/Disaster Recovery

Internal Audit's responsibility under this annual audit policy will be fulfilled upon filing the written report of the annual audit findings with the City Clerk and notifying the Chair of SCLAC Committee or its successor committee of the filing via City of Seattle email address. The City Council intends to schedule a public briefing at the SCLAC, or its' successor, with Internal Audit to highlight their findings.

7.2: External Audit

Every five years, City Light will assess the need for an external audit with recommendation from City Light Internal Audit. Once City Light makes such determination, the Director shall clearly communicate the specific scope for the audit and its necessity to Council Staff. Once Council Staff concurs on the adequacy of the scope, City Light will commission a qualified outside consultant to perform and report on the evaluation of wholesale energy risk management activities. City Light will include in the scope of work a written report of the external audit findings and presentation to the SCLAC Committee or its successor committee.

City Light's responsibility will be fulfilled upon filing of the written report of the external audit with the City Clerk and notifying the Chair of SCLAC or its successor of the filing. The City Council intends to schedule a public briefing at the SCLAC, or its' successor, with the external auditor to highlight their findings.

7.3: Management Oversight

To ensure compliance with this Policy and associated Procedures, it is essential that there is adequate management oversight.

City Council and the Mayor's Office will explicitly rely on effective management oversight for ensuring compliance with established policies in managing financial risks. Closely monitoring operations, enforcing adherence to established policies and procedures, and proactively reporting to the City Council and Mayor's office is essential for managing financial risk and for upholding the trust in the process. Accordingly, if the GM/CEO, the CFO, Director, or City Light's internal audit team determines that there has been a failure to implement WERM Policy that has created a significant and material financial risk to City Light, they have an affirmative responsibility to inform the City Council and the Mayor of this failure.

8. Amendments to WERM Policy

8.1: Periodic review and update

Every five years from the most recent date of Council adoption of the WERM Policy by resolution, the ROC shall recommend for the GM/CEO's consideration additions, subtractions, and modifications to the WERM Policy (five-year updates).

Seattle City Council (Council) is responsible for understanding the nature of the financial risks City Light faces. Based in this understanding, Council shall adopt any additions, subtractions, or modifications to WERM Policy by resolution to direct proper measuring, monitoring, control and reporting of all risks surrounding the City Light's wholesale energy transactions.

Consistent with the process for all legislation originating in City of Seattle's Executive branch

of government, the Mayor shall review and approve any resolution proposing any additions, subtractions, or modifications to the WERM Policy before transmitting the resolution to the Council for consideration. Following Council's adoption of a resolution related to WERM Policies resolution, the Mayor may concur with the resolution.

The SMC grants City Light's GM/CEO the authority to transact in wholesale energy with various parties and for specific durations. Consistent with that authority, the GM/CEO shall review and approve any additions, subtractions, or modifications to WERM Policy before transmitting them to the Mayor for consideration and possible transmittal by resolution to the Council.

8.2: Ad hoc Amendments

All updates, revisions, and modifications to the WERM Policy are required to be reviewed and approved by the process described above in Policy Section 8.1. Such amendments should be based on the experience and expertise of City Light staff and ROC may recommend ad hoc amendments to the WERM Policy to the GM/CEO for consideration during the interim period between the five-year updates. The process for adoption of ad-hoc amendments shall be the same as for periodic updates, see Policy Section 5.1.

However, to maintain flexibility and ensure the document remains up-to-date and user-friendly in the interim period, minor edits that are not considered material or significant may be made without formal approval. These minor edits include changes to the document's format, corrections of typographical errors, organizational changes, and other stylistic adjustments. Such changes shall be documented and communicated to all relevant stakeholders, ensuring transparency, and maintaining the integrity of the Policy. Any substantive changes that could impact the risk management framework or procedures must still undergo the formal review and approval process.

8.3: Exceptions to Policy

Occasionally, opportunities may present themselves for engaging in wholesale energy activities that were not contemplated at the time of adopting the current WERM Policy. Provided that these new activities do not conflict with the provisions of the current WERM Policy, City Light may engage in these new activities upon approval by the ROC. A complete request for temporary approval submitted to the ROC shall at least include the following elements:

- 1. A list of all associated risks and their characteristics;
- 2. Supported statements of compliance with adopted WERM Policy (or non-applicability);
- 3. The economics of the activity should be valued according to a methodology acceptable to ROC and should be documented;
- 4. Unambiguous contract terms that have been reviewed and approved by the City's Attorney's Office;
- 5. Record of adequate training of involved support staff and their demonstrated familiarity with the proposed product; and
- 6. Identification of customer impact, accounting, and regulatory issues (if any) associated with the product and the means to address the issues.

9. WERM Procedures

9.1: Establishing and amending WERM Procedures

The WERM Procedures rely upon the WERM Policy but are separate from the Policy and do not require Council adoption by resolution. The GM/CEO shall delegate to the Director the responsibility to establish and revise the WERM Procedures necessary to carry out the obligations under WERM Policy, in consultation and with the approval of the ROC.

The WERM Procedures, collectively known as the "WERM Procedures Manual," will comprehensively prescribe City Light's standardized approach to the identification, analysis, evaluation, treatment, communication, and monitoring of wholesale energy risks. The WERM Procedures Manual shall clearly define details of transactions, limits, evaluation methods, limits, procedures, and exceptions.

Per WERM Policy, all City Light employees in relevant functional areas must comply with and acknowledge their understanding of both this WERM Policy and the associated WERM Procedures as they apply to their City Light duties.

9.2: WERM Policy is Public, WERM Procedures are Proprietary

Consistent with all Seattle legislation, the City Clerk will maintain the legislative record for the WERM Policy and make them publicly available. The WERM Policy shall be adopted by resolution in a single document attached to the resolution.

The associated WERM Procedures, however, contain proprietary information and shall be treated with greater scrutiny, subject to applicable laws. City Light may distribute the WERM Procedures Manual to persons who are not City Light personnel charged with carrying out WERM Procedures only with the documented, explicit approval of the ROC and the documented endorsement of the General Manager.

Exhibits

Exhibit 1: Example Risk Oversight Status Report, dated June 26, 2024

ACKNOWLEDGEMENT

Name	Title	Sign & Date
Dawn Lindell	General Manager/CEO	
Kirsty Grainger	Chief Financial Officer	
Raman Vishwanathan	Director, Risk Oversight	
Siobhan Doherty	Power Supply Officer	
Drew Grissom	Senior Manager, Power Operations & Marketing	
Nhung Mach	Strategic Advisor, Risk Oversight	

Seattle City Light

Risk Oversight Status Report As of Jun 26, 2024

Summary



The current year includes actual and forecasted generation for past and future months, respectively.

The current year includes average Dow Jones firm peak index daily prices for past months and the average of the monthly forward marks for future months.

Wholesale Revenue Variance



Figure 1 compares the approved 2024 NWR budget of \$45M with the latest NWR forecast of -\$8.07M. In this figure, the shaded region represents the possible NWR scenarios between the forecast's 10th (-\$57.64M) and 90th (\$37.75M) percentiles.

The NWR forecast increased by \$7.20 from the previous forecast of -\$15.27M primarily due to higher expected hydro generation at Boundary for the balance of 2024.



Policy Compliance



Portfolio Risk Limit:¹ The optimal forward hedge is calculated by maximizing the risk-adjusted expected wholesale revenues and a portfolio level Wholesale Revenue at Risk (WRaR) computation is utilized for managing and overseeing the forward hedging activities and compliance. For more information see Chart 2, Page 3. *Based on the Jun 26th model output, the portfolio risk exceeds the established Dollar risk limit for the 2024 period. Per WERM procedures, the ROC has been informed of such exceedance and POM has been provided an exception by the ROC to monitor and execute hedging strategies as market liquidity and pricing opportunities improve. No further action is needed.

Prompt Month & Within Volumetric Limit:² POM staff will maintain City Light's power portfolio position for any prompt month or BoM period so that such position shall not exceed a 50 aMW deficit. This volumetric limit is calculated as the net position of City Light's combined physical position adjusted for any physical options (daily or monthly) that City Light has purchased for such a period.

Period	Date	Forecasted Surplus > -50 aMW
Within Month	Jun-24	Compliant
Prompt Month	Jul-24	Non-Compliant

*Based on the STOMP output as of Jun 25th, the month Jul'24 has a net position deficit greater than 50 aMW. As per WERM Policy, POM staff have been notified and have plans to reduce the deficits to within 50 aMW. No further action is needed at this time.

Forward Month's Resource Requirement Limit:² For any month within the next six months, or any subsequent quarter within the next 24 months, POM staff will immediately: 1) suspend forward sales for such a period if the forecasted net combined system energy position is less than zero at the 25th percentile; and 2) purchase for such a period if the forecasted net combined energy position is less than

zero at the 50th percentile, so as to reduce the deficit to zero. For more information see Chart 3, Page 4.

*Based on the forecast as of Jun 18th, the net combined system energy for Jul-Sep, Dec 2024 and Q3'24 are each less than zero at the 25% and Jul-Aug 2024 and Q3'24 are less than 0 at the 50% ile. Per WERM Policy, POM staff have plans to reduce the deficit for the months and quarters. No further action is needed at this time.

Forward Sales Limit:² POM staff will not sell forward a quantity of more than 1,750,000 net MWhs over a rolling four calendar quarters. Such a limit will be calculated as the net position of SCL's combined physical position adjusted for any physical options (daily or monthly) that SCL has purchased for such a period. Note that in the figure below, a negative amount indicates net purchases.



Physical Options Volumetric Limit:² As City Light introduces physical puts and calls into its portfolio it will do so in a conservative manner. This will allow for the refinement of procedures and controls that these transactions will impact. POM staff will limit will not transact more than the lesser of 300 aMW in physical puts and calls (including daily and monthly options) or spend more than \$2M for option premiums for any calendar year.

¹ Appendix A: Optimal Hedge, Risk Metrics and Limits (WERM Procedures)



Wholesale Revenue at Risk

In December 2019, City Light implemented a risk metric named the "Wholesale Revenue at Risk" (WRaR) to measure portfolio risk and evaluate potential hedging activities. WRaR is defined as the maximum possible wholesale revenue losses at 90% confidence level due to the difference between the current hedge position and the calculated optimal hedge position.

The WRaR metric is used as a risk control measure in City Light's management of surplus hydro resources. It is used in concert with additional volumetric limits, as well as expert knowledge and analysis of western wholesale energy markets, river flow data, and generation unit outages, to inform power management decisions.

Every two weeks, portfolio models are updated with the most current information and the WRaR risk metric is recalculated for the current portfolio.

Figure 2 shows WRaR for the calendar years 2024 and 2025 by model run date. Currently the WRaR for the calendar year 2024 is \$23.45M.





Position Status

City Light uses the most recent load and hydro forecasts including relevant historical data to run a historical simulation-based model that produces a forecast of more than two thousand portfolio resource scenarios. The output of this model along with the current forward positions provides energy information needed to determine SCL's position.

Figure 3 shows the Net Combined System Energy Position for the next quarters to match City Light's short-term transacting authority. The blue boxes represent the expected net energy position from the 25th to 75th percentiles (yellow diamonds), with the dark blue diamond inside each box representing the 50th percentile. If this blue diamond falls below zero, City Light must purchase adequate energy to cover that deficit; if the lower yellow diamond falls below zero, City Light must suspend forward sales for the period.





Credit

City Light actively manages its wholesale counterparty credit risk by:

- I. setting credit limits for each counterparty that are derived from a credit limit framework, credit scoring model and analysis;
- II. securing credit enhancements when necessary;
- III. monitoring national and global news including news related to industry and specific to counterparties;
- IV. daily monitoring of counterparty credit exposures.

ROD uses industry standard tools to proactively measure changes in counterparty creditworthiness. Implied credit ratings are utilized in conjunction with standard ratings provided by external agencies. The concept of risk tolerance extends to counterparties that are considered 'Higher Risk' with equivalent Moody's and S&P implied ratings of 'Ba1' or less. Counterparties with such implied ratings are placed into the 'Higher Risk Credit Portfolio' for close monitoring in order to reduce the risk of delayed or non-payment while utilizing wholesale power, transmissions, and related ancillary revenue opportunities. City Light strives to keep its "Higher Risk" counterparty exposures at less than 25% of the total exposure at any given time. However, this percentage can vary based on the time of the month when the report is produced.

Figure 4 shows the current credit exposure by counterparty credit rating and type (as of June/26/2024).

Figure 4 **Credit Exposure by Counterparty Type** NWPPRS, \$.00M Bank, \$.43M Public, \$.71M IOU, \$3.03M **Credit Exposure by Rating Category** Higher Risk, \$.15M Implied Rating Baa1 to Baa3, \$.88M Implied Rating Aaa to A3, \$3.14M



Price

To ensure that prices are independently developed, City Light's official forward price curve is prepared by ICE and used for internal analysis, valuation, and modeling tasks.

Figure 5 shows the forward price range (Mid-C HLH only) for the calendar years 2024 and 2025 based on this report and the previous report, with the shaded area representing the range of forward prices between the report dates.





Acronyms

- aMW average Megawatt Balance-of-month BOM Hedge Evaluation & Risk Analysis HERA NWR Net Wholesale Revenue Power Operations and Marketing POM Power Management Division PMD Risk Oversight Council ROC ROD Risk Oversight Division **STOMP** Short-Term Operation & Marketing Plan **WERM** Wholesale Energy Risk Management
- **WRaR** Wholesale Revenue at Risk

CS Memo Attachment 2 – Amendment 2 to RES 32130

Amendment 2 Version 1 to RES 32130 - SCL WERM Policy RES

Sponsor: Councilmember Woo

Amend recitals for consistency with Version 2 Wholesale Energy Risk Management (WERM) Policy

Effect: This amendment would revise the language of recitals in Resolution 32130 to accurately describe the updates to the Wholesale Energy Risk Management (WERM) Policy in Version 2. The Sustainability, City Light, Arts and Culture Committee (Committee) should only consider this amendment if the Committee approves Amendment 1 to RES 32130. Amendment 1 would replace Version 1 of the WERM Policy with Version 2 as the Attachment 1 to Resolution 32130.

The amendments modify the fourth and tenth recitals of Resolution 32130, as shown below:

..title

A RESOLUTION relating to the City Light Department; endorsing City Light's Wholesale Energy Risk Management Policy ("WERM Policy"), which governs wholesale energy, transmission, and ancillary services trading, including renewable energy credits and greenhouse gas offsets; establishing the WERM Policy as the guiding policy for managing risks related to wholesale energy, ancillary services, renewable energy credits, and greenhouse gas offsets within the City Light Department; and superseding Resolution 31616.

..body

WHEREAS, to economically provide electricity to its customers, the City Light Department

("City Light") routinely engages in the buying and selling of wholesale energy products;

and

WHEREAS, City Light's participation in the wholesale energy markets inherently exposes it to

various risks, including market and credit risks; and

WHEREAS, utility industry best practices mandate that City Light adhere to a clear and binding

policy statement to effectively manage these risks; and

WHEREAS, these industry best practices further stipulate that such policies should receive approval from an independent governing body, such as <u>City Council</u> (<u>City Light's Risk</u>

Eric McConaghy Sustainability, City Light and Arts and Culture Committee July 15, 2024 D1

> CS Memo Attachment 2 – Amendment 2 to RES 32130 Oversight Council, and endorsement by City Light's General Manager and Chief

Executive Officer); and

- WHEREAS, the periodic review and amendment of risk management policies are essential for good governance and oversight; and
- WHEREAS, the Wholesale Energy Risk Management Policy was initially adopted by the City Council on September 8, 2008, by Resolution 31053; and
- WHEREAS, the Environmental Attributes Management Policy was initially adopted by the City Council on June 7, 2010, by Resolution 31216; and
- WHEREAS, the Wholesale Energy Risk Management Policy was updated by the City Council on August 9, 2010, with the passage of Resolution 31230; on May 14, 2012, with the passage of Resolution 31365; and on September 3, 2013, with the passage of Resolution 31467; and
- WHEREAS, the Wholesale Energy Risk Management Policy was updated and the Environmental Attributes Management Policy was superseded on September 28, 2015, with the passage of Resolution 31616; and
- WHEREAS, the attached Wholesale Energy Risk Management Policy contains updates
 including reorganization and clarification of policy statements; reinforcement of the
 process to amend Wholesale Energy Risk Management Policy and City Council's final
 authority for adoption of such amendments; separation of Wholesale Energy Risk
 Management Policy from implementing Procedures; revision of the timing of reporting
 requirements; specification of requirements for internal and external audits of City Light
 wholesale energy risk management the affirmative responsibility of City Light's General
 Manager/ Chief Executive Officer, Chief Financial Officer, Director of Risk Oversight,

Eric McConaghy Sustainability, City Light and Arts and Culture Committee July 15, 2024 D1

CS Memo Attachment 2 – Amendment 2 to RES 32130

and City Light's internal audit team to report to the City Council and the Mayor any

failure to implement Wholesale Energy Risk Management Policy.

(confirmation of City Light's General Manager and Chief Executive Officer as final authority to

commission and approve any changes to policy; enhancing purpose, scope, strategy, roles

and responsibilities; and moving technical details from the policy to the procedures

manual where appropriate); NOW, THEREFORE,

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SEATTLE, THE MAYOR CONCURRING, THAT:
