AGENDA

1. Introductions
2. 2020 IRP Progress Report – Goals
3. IRP and Resource Decisions
4. Resource Needs
   a. Resource Adequacy
   b. I-937
   c. Clean Energy Transformation Act
5. Q&A and Next Steps
MEETING SUCCESS TIPS

• Please mute yourself when you are not speaking

• Use the chat to ask questions or raise your hand in the participant area where your name is listed

• We will also take periodic breaks for questions and discussion

• We will be recording these meeting to make it available if you are not able to participate
2020 IRP PROGRESS REPORT

1. Goals: Develop framework to look at resource needs and utility resource choices

2. Why: Resource choices are changing, and CETA provisions with new clean energy policies, timelines, resource adequacy specificity-- all make decision-making more complex

3. Schedules: Work began in 2018 towards new framework which is available for use working towards 2022 IRP and the preparation of the first 10-year Clean Energy Action Plan

4. Delay: COVID impacts lead to Update delays and decision to complete a more thorough analysis for the 2022 IRP with the resumption of public engagement
## RESOURCE DECISIONS AND OPERATIONS
### MOST IMPORTANT FACTORS TODAY

<table>
<thead>
<tr>
<th>Operations time horizon</th>
<th>Resource Planning/ Acquisition time horizon (Demand and Supply resources)</th>
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</thead>
<tbody>
<tr>
<td>Reliability (Reserves, Energy Position)</td>
<td>Resource Adequacy (CETA requirement)</td>
</tr>
<tr>
<td>Hydro License / Operating Constraints</td>
<td>Clean Energy Transformation Act (CETA)</td>
</tr>
<tr>
<td>Transmission &amp; Wholesale Markets</td>
<td>Seattle’s GHG Neutral</td>
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<tr>
<td>Risk (Money)</td>
<td>Energy Independence Act</td>
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Recent changes adding to complexity
## CLEAN ENERGY TRANSFORMATION ACT - WA

<table>
<thead>
<tr>
<th>Provision (minimum standard)</th>
<th>By when</th>
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<tbody>
<tr>
<td>Submit Clean Energy Implementation Plan</td>
<td>Every 4 years starting Jan 1, 2022</td>
</tr>
<tr>
<td>No Coal delivered to load</td>
<td>after 2025</td>
</tr>
<tr>
<td>100% GHG Neutral, 80% GHG Free</td>
<td>Measured in 4-year compliance periods 2030-2033, 2034-2037, 2038-2041, and 2042-2044</td>
</tr>
<tr>
<td>100% GHG Free</td>
<td>2045</td>
</tr>
<tr>
<td>Use Social Cost of Greenhouse Gases</td>
<td>At a minimum, for resource decisions for resources and contracts that operate 2030 and beyond</td>
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Long-term Planning Timeline

Regulatory Milestones

- **I-937 15% renewable energy standard begins 2020**
- **CETA 100% GHG Neutral begins 2030**

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<thead>
<tr>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>2024</th>
<th>2025</th>
<th>2026</th>
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<th>2029</th>
<th>2030</th>
<th>2031</th>
<th>2032</th>
<th>2033</th>
<th>2034</th>
<th>2035</th>
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- 2022 IRP/10-year Clean Energy Action Plan
- CPA and Clean Energy Implementation Plans begin
- 4-Year Compliance Reports begin
- Stateline wind RECS 2026
- South Fork Tolt License 2029
- King County Westpoint 2033
- Stateline wind 2021
- Skagit License 2025
- Existing 20-yr BPA Contract term expires 2028
- Columbia Basin Hydro, last in 2026
- Columbia Ridge 2033
- Most REC contracts end 2026-2031

License and Contract end dates

- Stateline wind 2021
- Lucky Peak 2038
- Boundary license 2055
- Priest Rapids 2052
- High Ross treaty 2066

Legend

black and blue text are hydro resources
blue text are owned projects or contracts that assume continued City Light use
green text are I-937 resources
larger text are significant resources
RESOURCE ADEQUACY
WHY IS IT IMPORTANT

• We must ensure that our customers have sufficient power to meet their demand at an acceptable cost and risk level

• Hydro must first meet flood, fishery and recreation requirements

• Coal plant retirements are changing the regional resource mix and demand patterns are changing

• NW Power & Conservation Council says we could have an adequacy problem in Nov – Feb and July – August (2024)

• Too much or too little resource can be costly to customers

https://www.nwcouncil.org/reports/pacific-northwest-power-supply-adequacy-assessment-2024
ENERGY LOAD RESOURCE BALANCE EXPECTED OF ALL SIMULATIONS, NO NEW RESOURCES

What’s different between the two pictures?
- Expiring contracts (Wind, Col. Basin Hydro, Lucky Peak Exchange)
- BPA block reduced as energy efficiency increases
- August deficit increases over time
FREQUENCY AND DURATION OF BAD EVENTS
IMPACT OF ADDING 100 MW VS 200 MW MARKET PURCHASES
MEAN ENERGY SHORTFALLS BY DURATION
IMPACT OF ADDING 100 MW VS 200 MW MARKET PURCHASES

Mkt Reliance = 100

Mkt Reliance = 200

Duration in Hours

Month/Year

Seattle City Light

THE NATION’S GREENEST UTILITY | 12
WHY LOLEV (LOSS OF LOAD EVENTS) 
CHOOSING THE RELIABILITY METRIC

LOLEV measures the frequency of bad events in the study
• Recognizes the benefits of energy limited storage and intermittent resources
• An Event is counted only if it exceeds City Light’s short-term hydro storage flexibility
• LOLEV metric target is one event every five years for our focus months: January, July, August, December
ENERGY RESOURCE ADEQUACY NEEDS
SENSITIVITY TO LOLEV TARGET AND MARKET RELIANCE

Sensitivity results are consistent throughout the 20-year planning period
TRADEOFFS BETWEEN COST OF LONG-TERM ACQUISITION VERSUS MARKET RELIANCE RISKS

Market Reliance Cost = Incremental Portfolio Costs + Costs of Market Reliance Risk (average 10% worst purchase position)
2020 IRP RESOURCE ADEQUACY NEED RECOMMENDATION FOR PORTFOLIO ANALYSIS

RA Energy Needs with Existing Portfolio, No EE, Market Reliance=200MW
Reliability Target of LOLEV=0.2 (2 events every ten years)
In 2006, Washington voters approved Initiative 937.

Requires major utilities to source power from renewable energy sources and invest in all cost-effective energy efficiency.

City Light led the charge with investments in energy efficiency programs in 1977 and wind in 2002.
I-937 COMPLIANCE PRINCIPLES
DECISION PROCESS FOR REC INVENTORY MANAGEMENT
I-937 AND DECLINING LOAD COMPLIANCE FORECAST

Transition to Load Growth

SCL I937 Inventory Cost  I937 1% Retail Revenue Requirement  SCL I-937 Load Growth
CLEAN ENERGY TRANSFORMATION ACT
2030-2044 COMPLIANCE

• Achieve GHG neutral standard starting in 2030
  o Use a combination of renewable and non-emitting resources
  o Use alternative compliance for up to 20% of load
  o 4-year compliance periods (i.e., Jan 1 2030 – Dec 31 2033)

• Alternative compliance options
  o Unbundled renewable energy certificates, including thermal RECs
  o Energy transformation projects
  o Alternative compliance payment
DELIVERED GHG FREE RESOURCES (FORECAST)  
EXISTING RESOURCES AND 2020 CPA PATH ONLY

- Annual distribution under 1,170 load and supply conditions

<table>
<thead>
<tr>
<th>Year</th>
<th>5th Percentile</th>
<th>Median</th>
<th>95th Percentile</th>
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<tbody>
<tr>
<td>2021</td>
<td>93</td>
<td>98</td>
<td>99</td>
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<td>2026</td>
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<tr>
<td>2040</td>
<td>91</td>
<td>97</td>
<td>99</td>
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QUESTIONS AND ANSWERS / NEXT STEPS

1. Resource choices
2. Action Plan
3. 2022 Work plan
OUR MISSION
Seattle City Light is dedicated to delivering customers affordable, reliable and environmentally responsible electricity services.

OUR VISION
We resolve to provide a positive, fulfilling and engaging experience for our employees. We will expect and reinforce leadership behaviors that contribute to that culture. Our workforce is the foundation upon which we achieve our public service goals and will reflect the diversity of the community we serve.

We strive to improve quality of life by understanding and answering the needs of our customers. We aim to provide more opportunities to those with fewer resources and will protect the well-being and safety of the public.

We aspire to be the nation’s greenest utility by fulfilling our mission in an environmentally and socially responsible manner.

OUR VALUES
Safety, Environmental Stewardship, Innovation, Excellence, Customer Care