



**Seattle  
City Light**

# INTEGRATED RESOURCE PLAN 2018

PROGRESS REPORT

**Seattle City Light: Working Hard to Keep the Lights On Everyday**





## TABLE OF CONTENTS

INTRODUCTION .....	1
EXECUTIVE SUMMARY .....	2
THE INTEGRATED RESOURCE PLAN & THE STRATEGIC PLAN .....	4
STAKEHOLDER LETTER.....	5
PROGRESS TO DATE: TWO-YEAR ACTION PLAN.....	8
CHANGING CONDITIONS .....	9
PORTFOLIO ANALYSIS & GREENHOUSE GAS NEUTRALITY.....	13
MOVING ON TO 2020 .....	14
PUBLIC INVOLVEMENT .....	15
KEEPING THE LIGHTS ON.....	17





## INTRODUCTION

Seattle City Light has just completed our 2018 Progress Report on the Integrated Resource Plan (IRP) approved by the Mayor and City Council in 2016. The IRP rules set by Washington State law require a progress report every two years and an updated plan at least every four years. The progress report discusses the changing conditions and progress on actions defined in the most recent IRP.

This IRP Progress Report shows Seattle City Light's power supply portfolio is on track to meet City Light's power supply needs for at least the next 10 years with zero net greenhouse gas power and producing surplus clean energy. City Light's near-term plans include new investments in energy conservation and renewable energy credits (RECs) identified in City Light's 2019-2024 Strategic Plan Financial Forecast and in this IRP Progress Report. In meeting our stated goals of reliability, affordability, and environmental stewardship, we are ahead of our goals – especially in our energy conservation efforts.

The 2018 IRP Progress Report includes review of changing conditions, policies, investments, and alternate paths to keep our power supply robust and reliable; achieving greenhouse gas (GHG) neutrality; and meeting applicable laws for resource planning including Washington State's Energy Independence Act (I-937). City Light's IRP Progress Report included evaluation and discussion of alternate paths of investment in:

- conservation
- renewable energy credits
- renewable generation
- options to replace the Bonneville Power Administration (BPA) contract
- a regional carbon fee to reduce GHG emissions

Our core priorities when performing integrated resource planning are to maintain reliable, affordable and environmentally responsible power. City Light's Strategic Planning process continues to confirm these priorities.





## EXECUTIVE SUMMARY

The IRP Progress Report explores changing conditions and presents actions that City Light is taking to project and plan for future power supply needs of our customers. Many factors influence the direction City Light takes in meeting long-term power supply demands. These include impacts from changes in customers' power needs and our existing power supply, the value of our surplus energy, the cost of purchasing power in wholesale energy markets, and the cost to develop and supply new generation to customers. These can become significant costs that need to be recovered through what the utility charges in our rates.

Federal and state financial incentives and our ability to sell City Light's existing surplus power offer an opportunity to offset some of the costs. Additionally, new renewable technology and energy efficiency programs and products have become more efficient and cost competitive in recent years leading to greater intrinsic value for consumers and utilities that need new energy sources.

With the delivery of this Progress Report, the IRP concludes City Light's power supply provides a strong foundation and has built in versatility to adapt to technological innovations that are ahead. City Light begins our review of the IRP for the more extensive 2020 Plan. Work on that plan has already begun.

## The Findings of the 2018 IRP Progress Report

**Power supply demands are expected to be met by conservation investment.** Conservation investment remains the first and best resource choice as the most environmentally responsible way to meet growing energy demands and is an important requirement of the Washington Energy Independence Act. Conservation increases City Light's generation surplus, improves reliability, and reduces our purchase of the Bonneville Power Administration's (BPA) hydro allowing further displacement of fossil fuel generation in the region. City Light customers have benefited by proactively implementing conservation and energy efficiency measures to lower their bills and by avoiding the impacts from building a new power generation plant. For the two-year period 2016 and 2017 City Light achieved 29.4 aMW of energy savings. This is nearly 3% of City Light's customer energy demand. To generate an equivalent amount of energy, City Light's customers would need to install over 200,000 kW of local solar and sacrifice reliability in meeting their peak winter energy demand unless other investments are made.

**City Light may need to purchase additional RECs starting in 2022.** With the continued priority of investments in conservation that keeps City Light surplus in clean energy, the purchase of RECs is a cost-effective way to meet renewable generation requirements set forth in the Washington State Energy Independence Act of 2006. The Act calls for utilities to make

investments in renewable generation to meet 9% of City Light demand today – growing to 15% in 2020. RECs provide payments to regional renewable generators to make sure the projects generate consistently and to provide financial support to develop other projects.

**New power supply costs are declining but adding new renewable power generation could add costs to customer bills.**

Most new utility-scale clean power supply, customer generation, and demand reduction options continue to decrease in price. Demand for these products has increased due to tax incentives, renewable portfolio standards, GHG emissions reduction priorities across the West, and rigorous energy efficiency codes and standards. This has created a viable market for these new technologies and has led to lower installation and operating costs. However, if additional pressures emerge for City Light to add new renewable power sources, City Light's analysis projects higher costs to deliver that power. Going forward, regional and local discussions about who pays for investments in transmission and distribution systems (the infrastructure that delivers power to customers and the region) will be as important as evaluating power supply options.

**BPA Preference Power Contract continues to be a good option to meet City Light goals.**

The 2018 IRP Progress Report shows that the continuation of the BPA contract beyond 2028 is a good option to keep City Light's costs down relative to available options. BPA provides approximately 40% of City Light's power supply and a future contract is expected to provide clean energy to ensure that City Light has enough dependable supply to meet demands during the winters when we have the highest energy needs. Additionally, the analysis shows that City Light may purchase less power from BPA in a new contract if conservation continues to reduce demand.

**Today, greenhouse gas offsets are as beneficial and lower cost for City Light as renewable energy production to achieve GHG neutrality.**

In 2000, the City of Seattle passed a resolution to prioritize GHG neutrality in our electricity supply. In 2005, City Light became the first utility in the nation to provide our customers with GHG neutral power and continues to do so. The 2018 IRP

analysis shows purchasing GHG offsets from verified projects that avoid, reduce, or sequester GHG emissions is a cost-effective mechanism for City Light to maintain GHG neutrality.

**More work is needed nationally and regionally to mitigate the impacts of climate change.**

The City of Seattle's policies supporting energy conservation, renewable energy, rigorous building codes, and greenhouse gas neutrality show that we have been a leader in fighting climate change and providing direct benefits of cleaner air and water in Seattle and the region. Conservation has helped City Light fight climate change and provide local benefits. For a lasting impact, this same commitment is needed from others.

**Carbon fees can reduce regional GHG emissions.**

A regional carbon fee that puts a price on carbon emissions to incentivize clean energy production could also be a lower cost way to reduce City Light's greenhouse gas emissions. Our analysis shows a region-wide carbon fee produces higher benefits for City Light compared to City Light making direct investments in more renewable energy generation. The primary reason is that putting a price on carbon should provide greater incentive for power producers to shift to cleaner sources of energy while increasing the value of our clean hydro resources. This should also lower the GHG content of City Light's power purchases from the region. However, carbon fees are not without controversy in Washington State because of differences in how the impacts may be felt by consumers served by the different utilities. If a carbon fee is implemented in Washington State, City Light customers may be asked to share the burden of the State's clean energy cost, and that was not a component of the IRP study.





## THE INTEGRATED RESOURCE PLAN & THE STRATEGIC PLAN

Our 2018 IRP Progress Report and the 2019-2024 Strategic Plan ([www.seattle.gov/light/stratplan](http://www.seattle.gov/light/stratplan)) rely on each other, but serve separate needs and goals.

Through rigorous analysis, the IRP measures how well our existing investments in power supply and new cost-effective energy efficiency investments set us up to meet our customers long-term power supply needs. The IRP looks at trends and a range of possible future outcomes to recommend a power supply path that is secure, but responds well to changing conditions.

The Strategic Plan reviews the entirety of City Light's business responsibilities to ensure that we are responsive to the needs of our customers now and into the future. It specifically looks at the utility's strategic priorities for the next six years and sets the foundation for our IRP goals and priorities. The recently adopted Strategic Plan set four strategic priorities:

1. Customer Service
2. Affordability
3. Clean Energy
4. Continuing Progress on our Core Business

City Light's IRP Progress Report reviewed how our power supply plan fits in with the utility's priorities and goals. The Progress Report evaluated the plan and foundation that supports this work. As conditions change and priorities are revised, the current power supply plan has the versatility needed to adjust.

# STAKEHOLDER LETTER



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July 2, 2018

Honorable Jenny A. Durkan, Mayor  
City of Seattle  
City Hall, Seventh Floor

Honorable Bruce Harrell, President  
Seattle City Council  
City Hall, Second Floor

Honorable Teresa Mosqueda, Chair  
Housing, Health, Energy & Workers' Rights Committee  
City Hall, Second Floor

Dear Mayor Durkan, Council President Harrell and Council Committee Chair Mosqueda,

As members of the 2018 Integrated Resource Plan (IRP) Stakeholders Committee, we would like to offer our support for the action going forward in the attached Executive Summary of the 2018 IRP Progress Report. It continues to support the preferred path put forward in our 2016 IRP. By relying on ongoing investments in conservation and future purchases of Washington State eligible Renewable Energy Credits (RECs) to augment City Light's existing power supplies, the City is reliably meeting the new power and clean energy demands of a thriving and growing customer base. City Light's 2018 IRP Progress Report evaluated alternative paths to meet the stated goals of energy reliability, affordability, and environmental responsibility in recommending this plan.

The IRP is a long-term power supply plan that describes the utility's strategies to meet electric needs for the next 20 years. These strategies consider City policies, state laws, and City Light's mission. Our role as stakeholders for the Integrated Resource Plan is to review the choices in resources that City Light uses – or doesn't. We provide expertise, ask questions and make recommendations for the IRP. Going forward we expect the results of the 2019-2024 Strategic Plan to help establish our goals and priorities that will inform the analysis we need to perform in the 2020 IRP.

The 2018 IRP Progress Report explains how the combination of City Light's existing hydro power supplies, renewable energy, and investment in greenhouse gas offsets has positioned City Light to maintain its greenhouse gas neutrality which it has done since 2005. Additionally, the IRP Progress Report projects that investment in cost-effective conservation will exceed City Light's load growth and will enable opportunity for City Light to provide additional surplus hydro generation to the region in support of regional reliability and clean energy goals as the power supply mix transitions.

However, while the outlook seems secure, the future is not without uncertainty. Regional coal plants owned by other utilities and power producers are being retired and creating greater reliance on existing surplus hydro and renewable energy for other regional utilities' power needs. City Light's analysis for its own long-term reliability relies on a wholesale market assumption that surplus power will be available in patterns seen over the last two decades. This will make it important to monitor and analyze the commitments and investments that other regional utilities are making in energy conservation and new alternative power sources. Because of the changing power supply mix and new market dynamics, we believe that City Light should evaluate its use of market purchases for reliability as well as the value of its own hydro power including its storage and operating flexibility. Additionally, we believe that City Light should investigate increasing renewable energy demand by customers and other utilities and reevaluate the cost-effectiveness of its conservation and renewable energy resource plans in the 2020 IRP. Evolving preferences, technological innovation, policies and focus on equitable outcomes may lead to new refinements of City Light's path.

The 2018 IRP Progress Report discussions also have opened doors into the complex subjects for our next in-depth review. We recognize that there is a strong push in many progressive cities, including Seattle, to reduce fossil fuel use in transportation and building uses beyond the current mix. We recommend that City Light evaluate the electric system impacts of different paths and levels of achieving greenhouse gas reductions. City Light should consider a wide range of options to meet these possible paths. The resulting recommendations and policies that could be developed from understanding this work will need to consider costs and benefits that extend beyond the typical analytic realm of City Light and its IRP. For example, when a customer chooses to switch to an electric car, the IRP evaluates the changes to the electric system that will impact the customer's electric bill but does not consider how the customer will save money in fuel purchases and maintenance costs. Therefore, it is difficult in the IRP to measure customer affordability because affordability for a customer is based on their total expenses not just their electric bill. It is possible that higher costs in one part of their budget can result in lower costs in another part.

As we look ahead we also recognize City Light customer preferences are changing, the market is changing, and new technologies and customer power generation options are grabbing the spotlight. Many customers are more interested in lowering their carbon footprint. There is an opportunity for engagement with customers to better understand what resonates with them and how City Light can better meet customers' needs and preferences. This customer engagement process will be important for City Light to recommend a future path in the 2020 IRP. To enhance our public engagement efforts, we invite you to ask our owners – Seattle City Light's customers and your constituents – what changes they see in their power needs and what priorities emerge for them.

In preparation for the next IRP, City Light should look more broadly and strategically at demand side and supply side alternatives to meet its power supply, including the potential for distributed energy resources. Seattle City Light was founded on decisions that were extremely risky at the time they were made. Since then the utility has faced major divides in the road where leaders boldly chose the less-traveled path, such as building the Skagit hydroelectric project, pioneering an energy conservation





program, and achieving greenhouse gas neutrality. Today we are living with the benefits of lower customer energy use and clean hydro power. We see both challenges and exciting opportunities ahead and we stand ready to provide input to guide future policy decisions.

Thank you for your consideration.

Sincerely,

Charlie Grist  
Conservation Resources Manager,  
NW Power & Conservation Council

J. Wesley Lauer  
Associate Professor/Civil & Environmental  
Engineering, Seattle University

Jeremy Park  
Power Systems Operations Manager,  
University of Washington

Kelly Hall  
Policy Manager,  
Climate Solutions

Joni Bosh  
Senior Policy Associate,  
NW Energy Council

Mike Ruby  
President,  
Envirometrics, Inc.

Steve Gelb  
Director,  
Emerald Cities Seattle

Paul Munz  
Account Executive,  
Bonneville Power Administration



## PROGRESS TO DATE: TWO-YEAR ACTION PLAN

The 2016 IRP outlined actions for the utility to take to achieve our goals:

- Continue high achievement of cost-effective energy efficiency, ever on the look-out for new technologies, energy efficiency programs, and market strategies.
- Monitor new resource options including their costs and ability to meet City Light's future resource needs.
- Continue to assess modeling inputs, assumptions and methodologies related to all work central to IRP including load forecasts and how customer energy use is changing.
- Continue environmental leadership including evaluation of factors that impact hydro generation, electricity demand, and fish populations as new information on the subject is available.
- Continue to engage BPA to limit rising contract costs and work with other regional partners to ensure the upcoming contract remains affordable into the future.
- Serve the retail load with City Light's existing resources portfolio, short-term market purchases, and other transactions to reshape seasonal energy demands as needed.
- Maintain an adept and active power marketing operation.
- Participate in power and transmission regional forums to ensure access to efficient wholesale markets and reliable transmission capacity for serving City Light customers.

City Light has been busy since the 2016 IRP working towards the actions described.

Priority work since 2016:

- Energy efficiency adoption of 19.4 aMW in 2016-2017 surpassed two-year targets from 2015 CPA and 2016 IRP assessment.
- City Light has adopted a new retail load forecast model and is in the process of updating our peak forecast model.
- City Light monitors and reviews changes in resource costs to better understand whether new renewable generation could be economic without incentives and subsidies.
- City Light conducted public outreach to confirm our priorities for planning for the future.
- City Light updated the IRP analysis to confirm our reliability position, review power supply paths recommended by stakeholders and customers, review the impact of changing conditions, and consider new ways to represent the findings as we prepare for a new Integrated Resource Plan in 2020.

For additional information about City Light's recent accomplishments and strategic actions for the next six years, go to [www.seattle.gov/light/stratplan](http://www.seattle.gov/light/stratplan).





## CHANGING CONDITIONS

No one is able to precisely predict the future. We look to the data, trends, and statistical evidence to help guide us in the IRP. We plan based on best practice and ensure our plans maintain as much versatility as possible while also building a strong foundation to meet our needs. Some of the most critical changing conditions that City Light reviewed during the 2018 analysis for this Progress Report included policy and legislative changes, City Light's new retail load forecast, changing resource costs, and alternate power supply paths to maintain carbon neutrality.

### Legislative & Policy Changes

While no major policy or legislative changes have been enacted that would change City Light's plans since the 2016 Integrated Resource Plan, changing policies and regulations are part of the utility landscape. City Light's existing GHG neutral power supply provides a strong foundation as Seattle's Mayor and City Council continue to take action and support new initiatives to show their commitment to climate action. Inaction on climate change at the federal level has led to new legislative considerations in state and local governments and citizens' initiatives focused on clean power are back on the ballot. Particularly important for City Light will be the outcome of Initiative 1631 – Clean Air Clean Energy that voters in Washington will decide this November, as well as other potential changes to state policy mandating more renewable resources in the power supply mix. Additionally, electrification policies and rules could impact our plans.

## Load Forecast

The most critical step in future power planning is the determination of future power supply needs. For the purpose of the IRP, this involves an assessment of how much total energy City Light customers are expected to consume over a period of time (load), what is the maximum amount they are expected to consume instantaneously (peak demand), and how rapidly they are expected to change their instantaneous needs (flexibility or ramp).

The first step in assessing the need for additional resources is forecasting Seattle's future electricity demand and establishing a target for the desired level of resource adequacy. City Light's long-range forecast calls for retail load to decrease despite the projected economic and population growth for the region. Growth is declining because of changing regulations, building codes, and new customer behaviors. This is similar to regional and national trends.

Figure 1 shows City Light's current normal peak and retail load forecast. These forecasts reflect the savings that City Light projects from new energy efficiency programs.

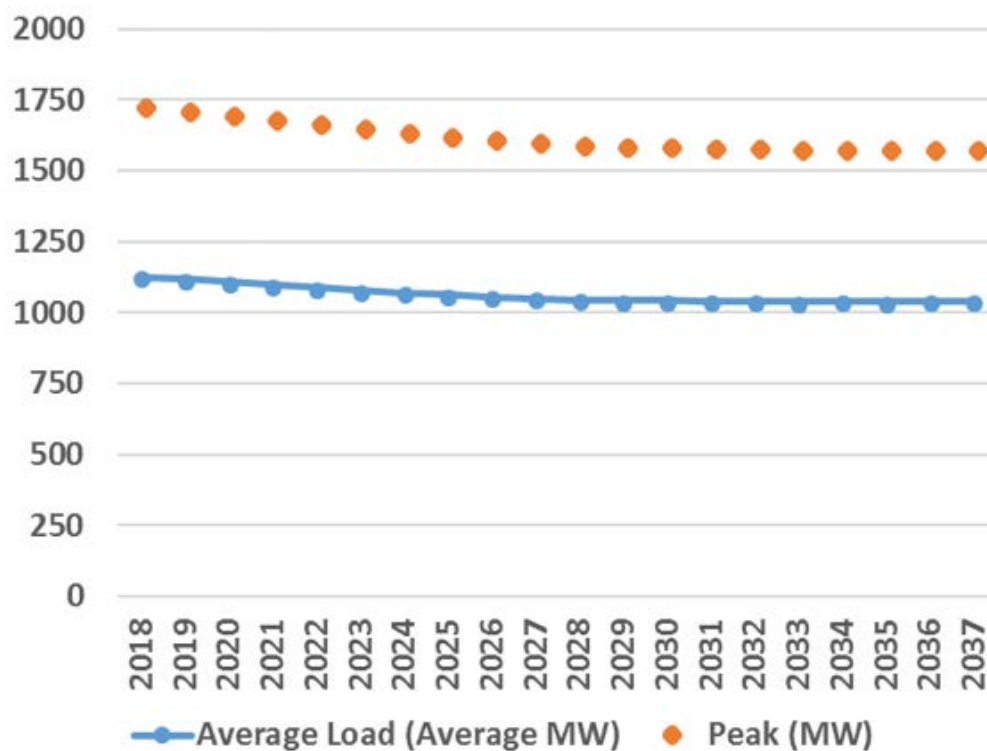


Figure 1. City Light's normal peak and retail load forecast

## Identification of Resource Need

As part of the IRP process, City Light identifies future supply needs for the next 20 years based on the ability of existing supply to meet future forecasted demand, regulatory requirements, and uncertainty in supply and demand. To help identify these needs City Light performs a resource adequacy assessment and forecasts how much eligible renewable generation will be needed to comply with I-937.

Combining information about forecasted demand and existing resources, City Light determines whether we need additional power supply resources for reliability and I-937 compliance. Power supply needs for reliability are determined through a resource adequacy study. As a utility that relies on hydro generation,



City Light established that we must have a high confidence measure of meeting resource needs to cover most circumstances which might develop – especially in high demand hours during the winter season. The established IRP high confidence level is based on a 90% probability of being able to meet winter deficit conditions. City Light considers historical load variability, hydro generation variability, and the collective plans for maintenance and turbine overhauls, before adjusting our resource adequacy studies to account for circumstances that push the limit of City Light’s capacity to meet our energy need.

City Light has maintained a high level of resource reliability, including the ability to serve demand even when hydro generation capability is low by using an option to purchase 200 MW from the wholesale electricity market. Under many conditions, City Light has substantial surplus power available to sell in the wholesale power market, even during the peak winter months. In the 2020 IRP, City Light will review our current reliance on 200 megawatts of short-term market purchases.

Similarly, City Light’s I-937 compliance assessment depends on the load forecast and an ability to reliably meet the requirements of the law. As retail load declines, so too does the requirement for City Light to add renewable resources. City Light’s IRP conservatively considers the impact of retail load decline and projects the addition of renewable energy credits even with a forecast of declining retail load in this IRP. City Light will be reviewing our load forecast and our compliance options to position City Light to best meet our power supply needs and goals.

Figure 2 shows City Light’s projected long-term load resource balance under expected conditions and expected I-937 position based on the projections from the 2018 IRP progress report. The figure displays existing and projected future resources. As conditions change, City Light’s plans may change as well.

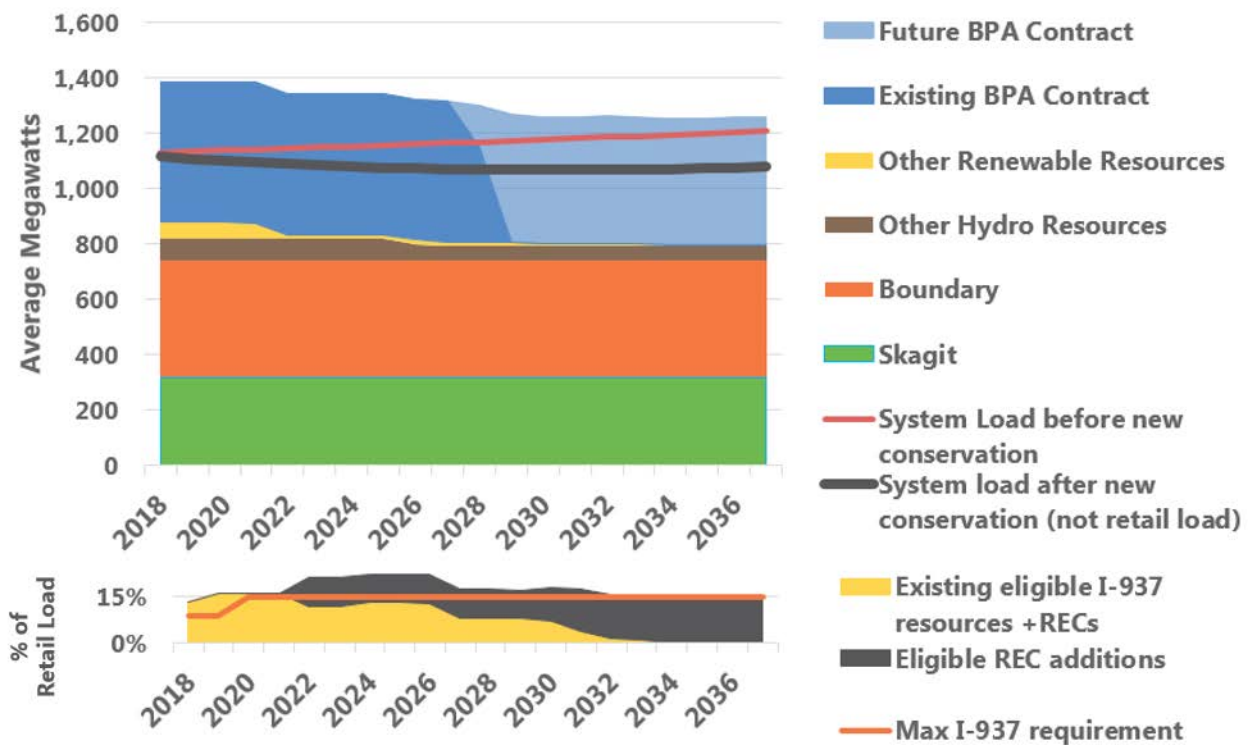


Figure 2. City Light’s projected long-term load resource balance and I-937 position

## Resource Choices

For the 2018 progress report, we updated our cost estimates for the most cost-effective energy resources from the 2016 IRP. These resources were selected because the characteristics fit best with City Light’s energy need. Figure 3 shows a levelized cost comparison of each technology in dollars per megawatt hour. The cost includes recovery of the capital investment, operations, maintenance, emissions costs, shaping and delivery of that energy to City Light. It represents a forecast of the annual cost per unit of energy produced for twenty years that City Light may expect to pay. Between 2016 and 2018, solar and battery resource costs have experienced the biggest reduction because of technology innovations and increased adoption. City Light will continue to monitor developments in supply and demand-side technologies for cost, commercial availability and the value these resources can provide to our system needs.

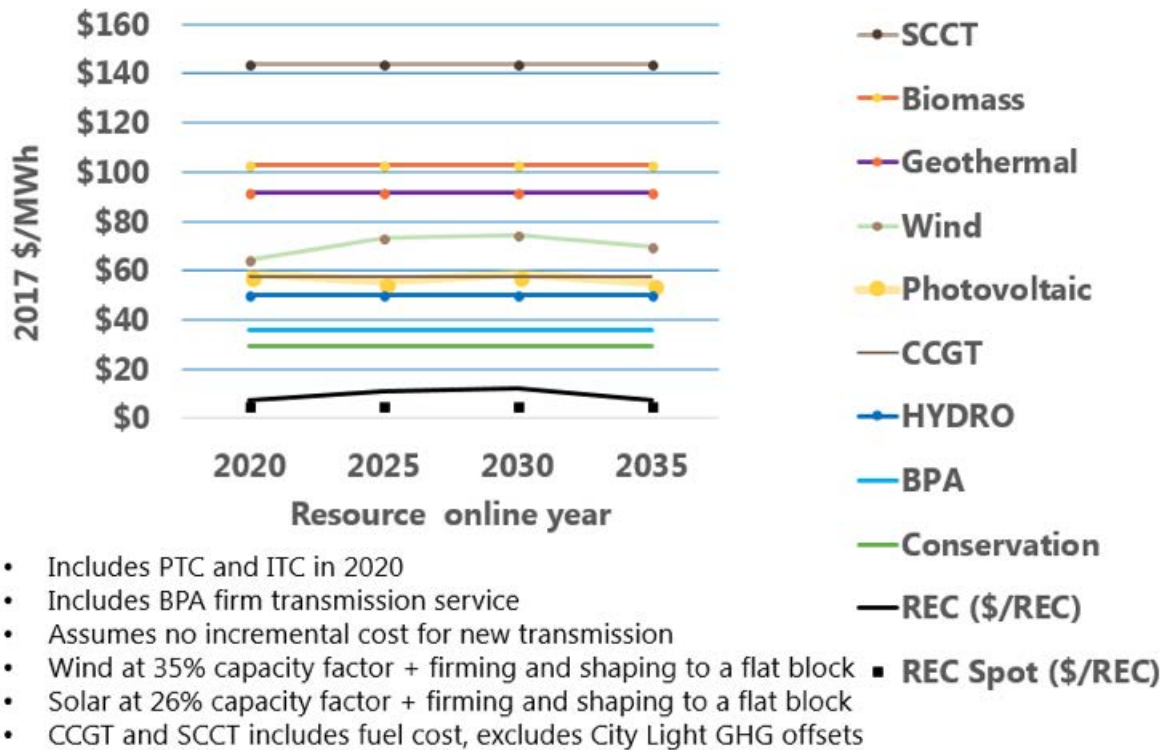


Figure 3. 2018 IRP Progress Report cost projections – projections from 2017 studies



# PORTFOLIO ANALYSIS & GREENHOUSE GAS NEUTRALITY

The IRP portfolio analysis evaluates alternate power supply paths to meet customer demands based on how well those portfolios deliver reliability, environmental responsibility, and affordability. Because City Light has clean power supply in excess of our customer needs over most of the year, City Light’s power supply GHG emissions are primarily from short-term market purchases and our BPA contract. City Light has been able to reliably maintain GHG neutrality with the purchase of a modest amount of GHG offsets ranging from 100,000 to 300,000 metric tons of CO<sub>2</sub> equivalent annually. In exploring different ways that City Light could maintain GHG neutrality, City Light reviewed the change in cost compared to the change in carbon dioxide (CO<sub>2</sub>) emissions for alternate power supply paths as shown in Figure 4. The analysis found that the incremental cost to reduce emissions increased as more emissions were removed from the portfolio. It also found that a regional CO<sub>2</sub> tax can reduce emissions and City Light’s cost by making the regional power mix cleaner and by increasing the value of our surplus hydropower energy. Additionally, this IRP analysis shows that City Light expects our GHG emissions to decline over time with power supply paths that include RECs and those that deliver additional renewable energy for I-937 compliance.

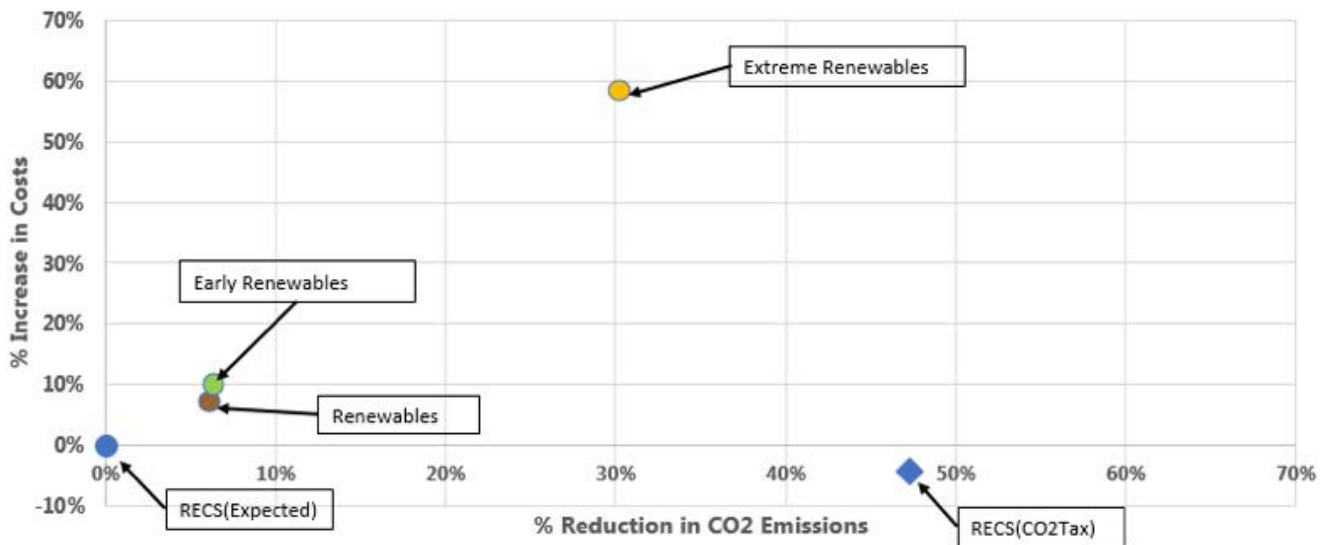


Figure 4. Percent increase in cost compared to percent reduction in emissions over 20 years

For the 2020 IRP City Light will be working with the IRP stakeholders to monitor our costs and technological innovations and explore the best ways for City Light to provide reliable, affordable and environmentally responsible power. For more information about changing conditions and the 2018 analysis go to [www.seattle.gov/light/powerplanning](http://www.seattle.gov/light/powerplanning) to review the 2018 Stakeholder presentations.

# MOVING ON TO 2020

## Questions to Ask – and Answers to Seek for the Next IRP

As City Light's IRP team and our stakeholders begin the more extensive 2020 IRP process, we have already identified several key areas which merit additional focus. With a focus on constituents, councilmembers can help educate and ask the public what changes they see in their own power needs. Some of the questions we want to ask our customers are:

*How do we define each of our goals of reliability, environmental responsibility, and affordability? What are the tradeoffs we are willing to make in our goals, if any? Are there any new goals to consider?*

Not all of City Light's goals – affordability, reliability, and environmental responsibility – may be valued equally by everyone. There is a need for continued community-wide conversations about our current goals. Affordability has traditionally meant meeting the power supply demand with the most reliable and environmentally responsible power and keeping rates in line with other regional electric utilities.

While we continue to pursue energy efficiency beyond our immediate needs to reduce customer expenses, our costs and rates may be affected. Similarly, City Light's high standards for reliability and environmental responsibility could mean higher costs and possible rate increases. Some in our community find such rate increases a challenge to pay.

Additionally, earthquakes, landslides, and other hazards that are present in our region raise issues of resiliency in the design of our transmission and distribution networks. Power delivery is just as important as adequate power supply for everyday use. Should we be making more investments in our infrastructure to withstand stresses and sudden shocks or simply focus on how we will recover?

These questions will require guidance from our customers, the Mayor, and City Council to help City Light recommend future paths to meet our energy supply needs.

*What regulations are important to you?*

Regulation changes are being discussed, voted upon, and argued in court. Federal fuel standards are being weakened, natural gas power generation at the national level is viewed as part of the solution, and proposals for regulating GHG emissions through public initiatives are taking form in both Washington and Oregon. Providing leadership in the region for aggressively reducing and eliminating fossil fuel use entails not only balancing costs and benefits but also the equitable sharing of those costs and benefits.

*How much value should our electric customers and the region place on hydro energy? Should policies focus on equity between hydro and other renewable generation?*

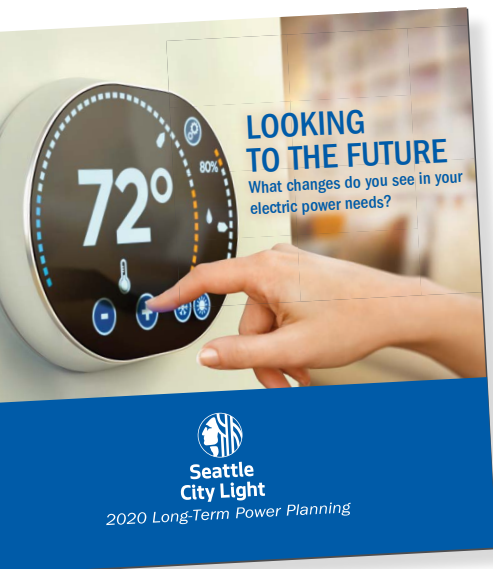
City Light has a long history of leadership in environmentally responsible regional hydro use and policies. How the region should properly value – and price – the benefits of clean energy that hydro provides will be part of the core 2020 discussions. We will consider hydro generation costs and the role hydro plays in meeting regional population growth and new power demands as fossil fuel use is displaced.

*Will we have adequate clean energy to respond to climate change as fossil fuel use declines and population continues to grow?*

There is wide recognition that renewable costs and technologies are rapidly changing. City Light is well-positioned to meet near-term needs but recognizes that our long-term future is less clear. Climate change as well as the potential for customers to switch to electricity for home heating and cooling may change the adequacy of our power supply and require new transmission and distribution lines to serve new demands. We will need to continue to monitor and assess the potential magnitude and timing of these impacts.



## PUBLIC INVOLVEMENT



City Light continuously tracks our power supply needs, new and traditional resources and I-937 compliance choices. These power supply choices require committing ratepayer dollars. The choices City Light makes will affect future operating costs, reliability, and the City's environmental footprint for decades to come. As a consumer owned utility, customer input on the Integrated Resource Plan is needed.

We have observed that our customers are asking for more and broadened information regarding energy options and costs (especially as affordability issues and utility service levels are raised at every level of government). Additionally, while our environmental stewardship remains strong, customers are more passionate than ever about increasing action against climate change. At the same time, concerns about increasing electric rates and the reliability of City Light's current infrastructure have also been voiced.

We recognize that there is continual need for public involvement, stakeholder engagement, and customer education on power generation choices, energy use changes, and technology innovations.

City Light is developing methods to reach customers and the public to encourage them to be involved in the IRP process throughout the year. City Light is coordinating a process where stakeholders, customers, the public, the Mayor, and City Council can view information, ask questions, and provide input for the 2020 Integrated Resource Plan. City Light has produced a Citizen Tracking Sheet where anyone who wants to be a part of the process can do so on their timeline. Go to [www.seattle.gov/light/powerplanning](http://www.seattle.gov/light/powerplanning).



# Tracking City Light's Progress



## TRACKING CITY LIGHT'S PROGRESS

Technologies and customer's choices are rapidly changing. While in many aspects there has been significant progress in reducing the greenhouse gas emissions from power generation, this rate of reduction is not seen in the rest of the economy.

City Light's future Integrated Resource Plans (IRP) will recognize these changes and reflect the compatibility of City Light's existing

reliance on City Light-owned hydrogenation and supplemental contracts with the changes – both known and those unforeseen – that lie ahead.

Stay tuned to track our progress – and add your participation or ask questions – to be a partner with us in following City Light progress:

	Send me info./ Meeting info.	Question for City Light	City Light Update
<p><b>STAYING INFORMED</b></p> <ul style="list-style-type: none"> <li>• Discuss and decide the type of information that we need to present to the public – and in what form, to help citizens further delineate how City Light might balance goals of affordability, reliability and environmental responsibility.</li> <li>• Reach out to diverse, underserved, new customers, and young adults with basic information on the choices City Light and its owners (the public) will face in the near future and encourage them to learn more each year about how we work and how they can be part of the process.</li> </ul>			
<p><b>TRACKING RELIABILITY &amp; ENVIRONMENTAL RESPONSIBILITY</b></p> <ul style="list-style-type: none"> <li>• Ensure that City Light can provide the quality of service its customers expect by expanding City Light's reliability analysis to account for energy and peak requirements across all seasons. The peak demand periods are regularly studied, but year-round demands need to be integrated with City Light's distribution planning.</li> <li>• Track how City Light is meeting the Washington Energy Independence Act which sets the standards for reducing dependency on fossil fuels or exchanging its use with other mitigation investments.</li> <li>• Collaborate with regional entities such as BPA and the Northwest Power and Conservation Council to advance our ability to analyze climate change impacts on the western electric power grid.</li> <li>• Discuss what climate resilience metrics should be evaluated and added to City Light's IRP</li> </ul>			
<p><b>EVALUATING POLICY CHANGES</b></p> <ul style="list-style-type: none"> <li>• Identify and study scenarios to evaluate the impacts of different legislative options to reduce greenhouse gas emissions and provide scientific analysis to the Mayor and City Council on how measures affect current operations, costs, emissions projections, and IRP impacts.</li> </ul>			
<p><b>ENACTING ENVIRONMENTAL JUSTICE PROVISIONS</b></p> <ul style="list-style-type: none"> <li>• Collaborate with Northwest Power and Conservation Council to review and update City Light's conservation potential assessment to include environmental justice concerns. These emphasize programs that allow City Light surplus energy supplies to go towards cleaner air and water elsewhere. The value of City Light flexibility and capacity for using our energy to reduce pollution elsewhere will continue to require more advanced research and technologies.</li> <li>• Educating and informing our leaders of how City Light can be more active and make choices in planning for more equitable resource use in power generation and affordability.</li> </ul>			
<p><b>ASSESSING IMPACT OF ALTERNATIVE ENERGY ENTERING THE ELECTRIC GRID</b></p> <ul style="list-style-type: none"> <li>• Review City Light's reliability metrics to ensure that the changes occurring on the electric grid accurately reflect the use (benefits and costs) of hydro, conservation, distributed energy resources, demand response, and other renewable resources.</li> <li>• Evaluate the impact of high levels of electrification and distributed resources on City Light's distribution infrastructure and peak and energy resource needs</li> <li>• Research and evaluate distributed energy resources, direct load control, demand response, batteries, and pumped storage especially to determine impact on power demand and overall costs of maintaining peak reliability.</li> </ul>			



## KEEPING THE LIGHTS ON

The 2018 IRP Progress Report's findings are compatible with what City Light planned in our 2016 IRP. New technology, incentives, policies and programs have meant that conservation measures have more than made up for the expected growth associated with the area's economic boom and continue to be important for meeting the City of Seattle's Climate Action Plan.

Our customers are asking more sophisticated questions about electric power needs, alternative energy options, the costs of possible choices, rate equity, and the individual's responsibility for paying towards City Light's total infrastructure when they produce much of their own electricity. City Light has been pushed, rightfully, to engage our customers. We distribute surveys, ask for opinions, host local community meetings, produce video presentations, offer open houses and networking nights, strengthen our Stakeholder Advisory Council, conduct focus groups and take comments or questions on our website.

The 2018 IRP Progress Report notes that with the strong leadership at the City of Seattle and City Light, the utility has excelled in both power supply and environmental stewardship. Every year we strive to be an example that other cities and utilities can emulate. As City Light begins work on the 2020 IRP, we will focus on supporting long-term distribution planning, and integrating City Light's work to examine power supply and demand options that continue to expand customer choices.

We look forward to discussing how we define the goals which have driven City Light for decades. City Light leadership, the Mayor, City Council, stakeholders and the public will be asked to determine the best practice investments in infrastructure for a reliable grid, environmental progress, promotion of social justice and equity, and reasonable protection from risks (natural or man-made).

We look forward to the challenges and opportunities ahead as energy production shifts away from fossil fuels and our electric system is asked to respond in new ways. Seattle City Light will continue to provide the necessary research and analysis to help our leaders make informed policy and long-term investment decisions for our thriving city.



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*Seattle City Light is dedicated to delivering customers affordable, reliable and environmentally responsible electricity services.*

**SAFETY • ENVIRONMENTAL STEWARDSHIP • INNOVATION • EXCELLENCE • CUSTOMER CARE**



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