



Seattle City Light

# 2022 IRP KICKOFF MEETING

External Stakeholder Meeting

City Light Integrated Resource Plan Team | January 29, 2021

# AGENDA: 2022 IRP KICKOFF MEETING





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1. Introductions (5 mins)
2. 2020 IRP Progress Report & Council Presentation (10 mins)
3. IRP Process Overview (10 mins)
4. Stakeholder Role and Feedback (10 mins)
5. Updates to the Load Forecast (20 mins)
6. Next Steps (10- 15 mins)
  - IRP Inputs/Scenarios
  - Plans & Timelines / Next meetings

# 2020 PLANNING LANDSCAPE

## COURSE CHANGE TO PROGRESS REPORT

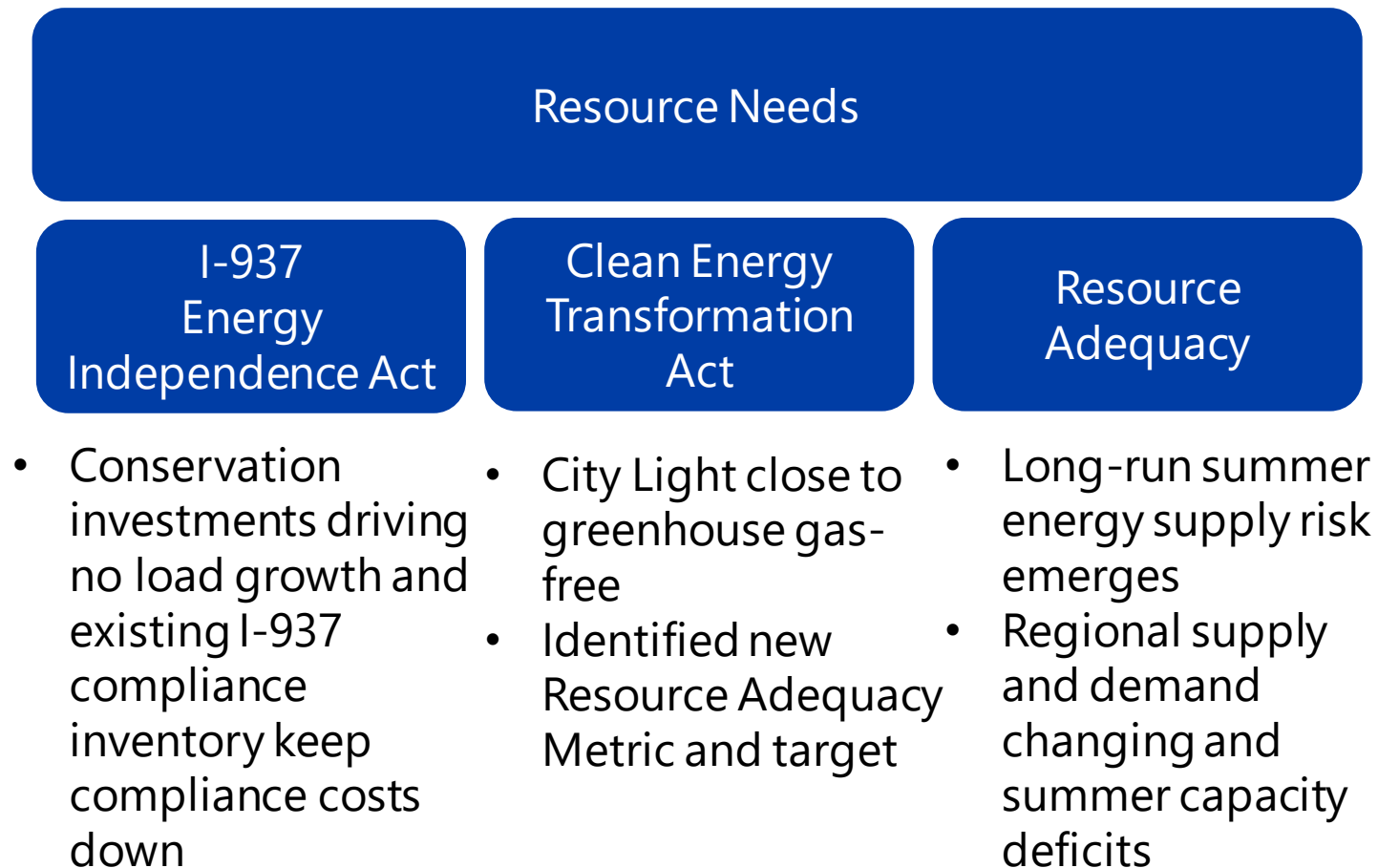
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	Clean Energy Innovations	Significant growth in renewable energy and energy efficiency driving future energy supply growth
	Clean Energy Transformation Act	New Washington law with associated rules being written
	COVID-19	Adverse health, environmental justice, economic and energy demand impacts
	Electrification	Climate change concerns transitioning choices and regulations in transportation and building energy use

# 2020 IRP PROGRESS REPORT

## MORE TARGETED FRAMEWORK

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## 2020 IRP PROGRESS REPORT NEXT STEPS

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- February 3, 2021 Presentation to Transportation and Utilities Committee at 9:30 am
- If available, we would like your support for the 2020 IRP Progress Report and commitment to help us with the workplan ahead
- IRP team will send meeting sign up information when available

# INTEGRATED RESOURCE PLAN OVERVIEW



State Law, 2006



Twenty-year Resource Plan to meet forecast demand



All utilities with >25K customers



Safe, Reliable, Clean, Equitable, Lowest Reasonable Cost



Two-year cycles (2020 Progress Report\*, 2022 IRP Update, etc.)

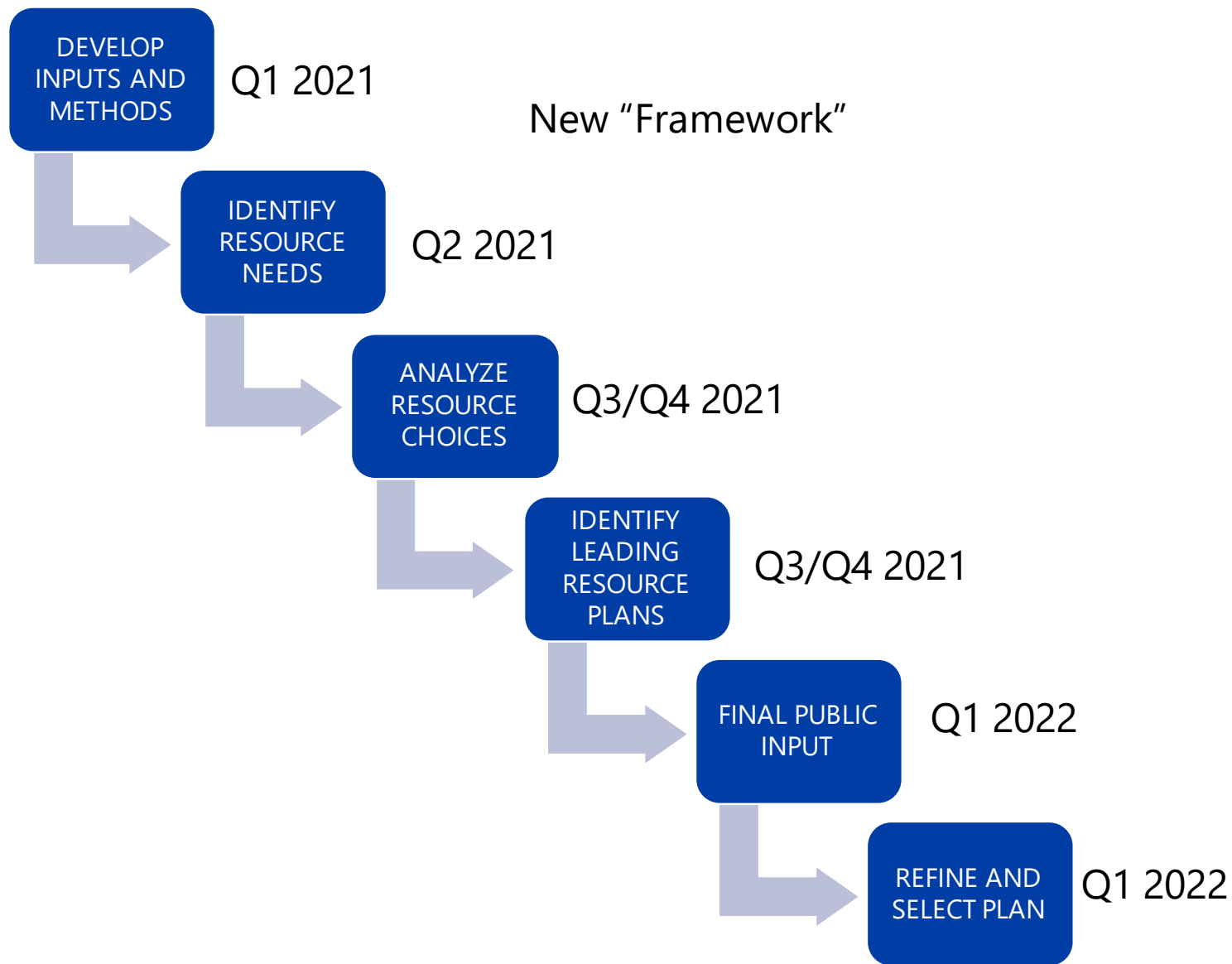
\*one-time exception



Public involvement



Integrated Resource Plan Update



## SINCE NOV 2020 IRP PROCESS FEEDBACK

- Shorter meetings but more frequent
- Better framing of feedback desired from stakeholders
- Do we have sufficient diversity in the stakeholders group to support the technical review of the IRP
- Review and reflect State policy and Equity reports available
- Produce more load growth scenarios
- Describe the role of water resources in the future
- Study Policies/codes to support climate change objectives and demand response opportunities(e.g., water heater direct load control)
- Better explanation of the interrelationships amongst the different plans

## STAKEHOLDER ROLE

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- Regular participation stakeholder meetings
- Review of IRP work and leadership in focus areas
- Input on key energy issues and support bringing relevant studies and data for inclusion
- Helping ensure that we cover the relevant facts and balance all perspectives in our plans



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# 2020 RETAIL SALES FORECAST UPDATE

IRP Stakeholder Meeting

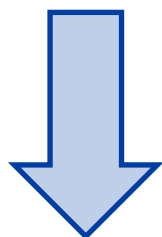
John Rudolph

January 2021

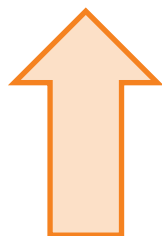
# KEY CHANGES: 2020 VS 2019 LOAD FORECASTS

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**Near-Term**



**COVID and Economic Outlook**

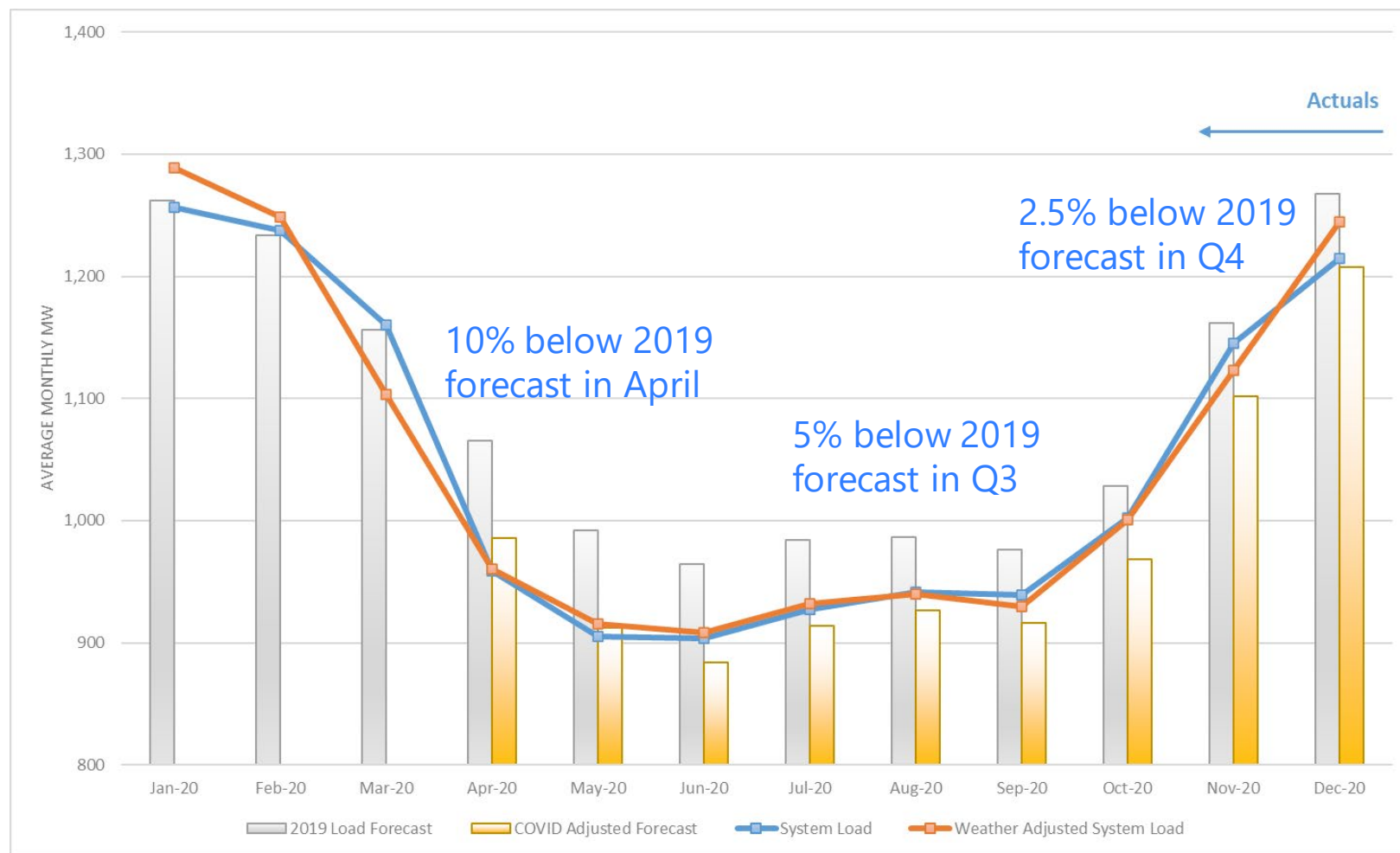


**Building Code Limiting Natural Gas in  
New Construction**

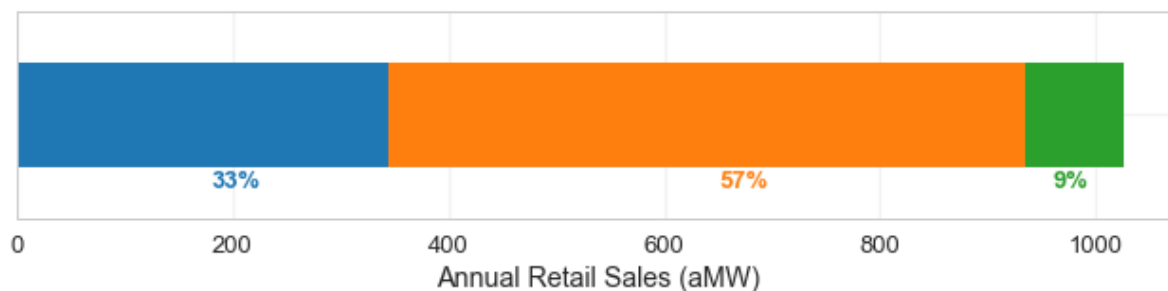
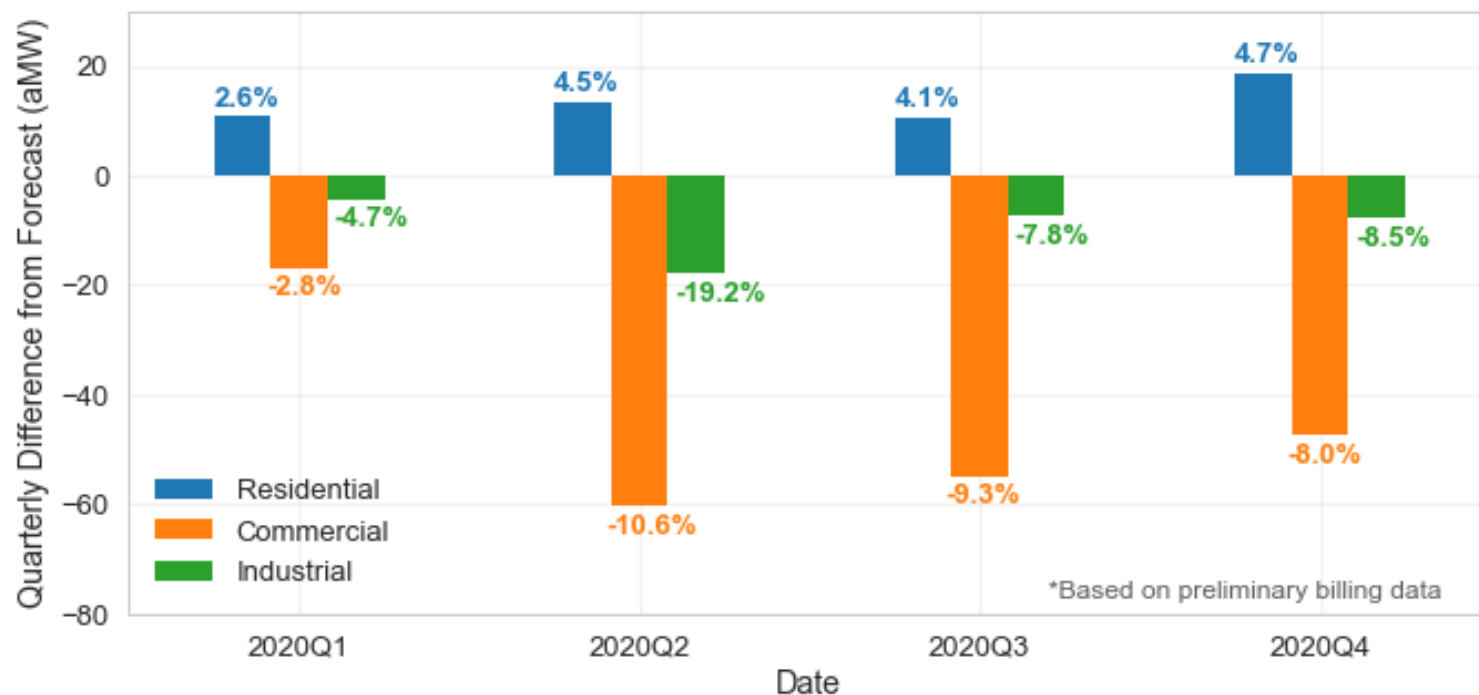
**Long-Term**



# COVID IMPACTS 2020 SYSTEM LOAD



# COVID IMPACTS 2020 RETAIL LOAD



# COVID & ECONOMIC RECOVERY

## Normal Economic Drivers



### COVID Recovery

Vaccine is widely distributed mid-2021 and normal economic activity starts to return by end of the year. Electricity consumption in heavily impacted Commercial sectors will gradually recover between 2022 - 2024.



### Housing Market

Remains healthy and continues to grow as economy recovers though at a slower pace than last 10 year.

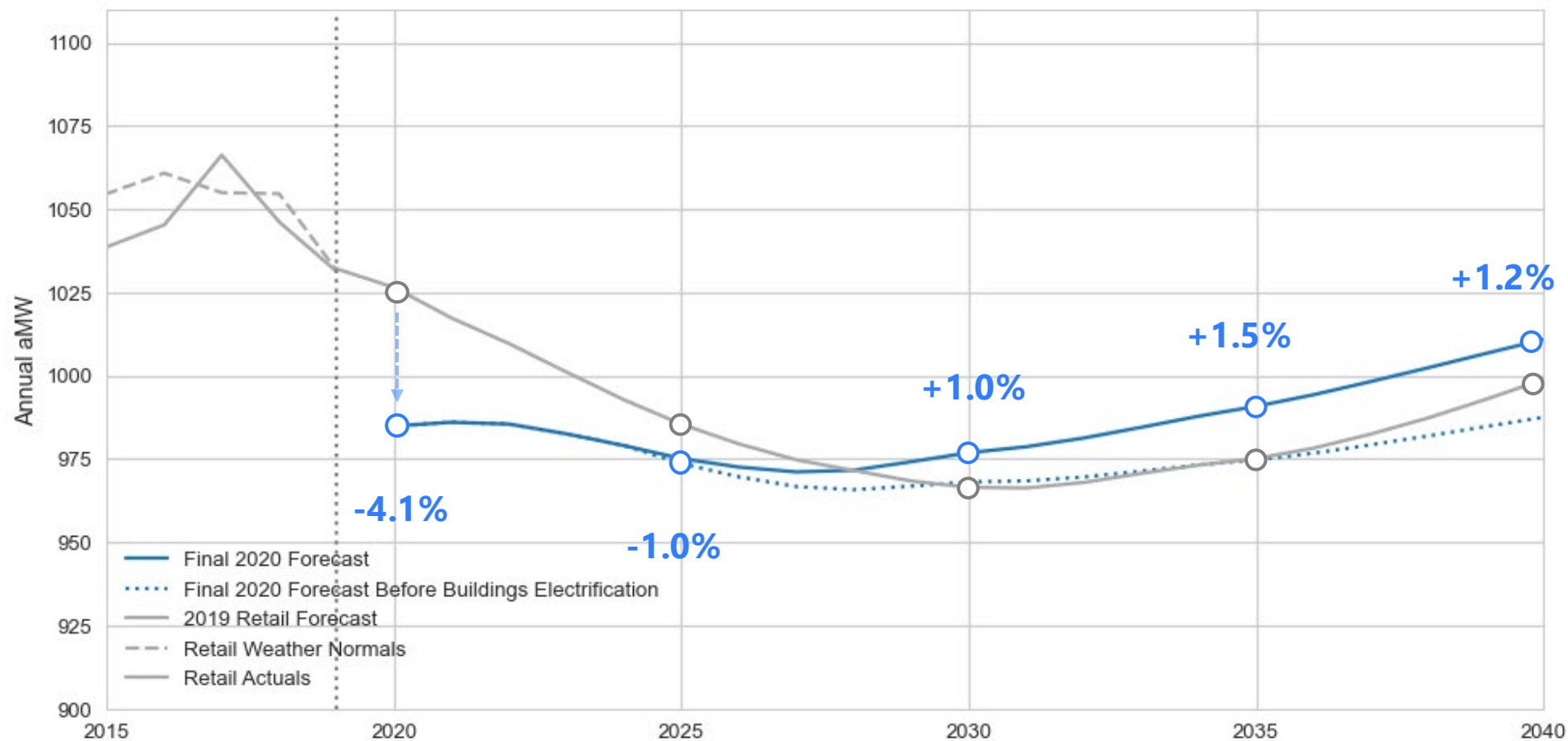


### Commercial Real-Estate

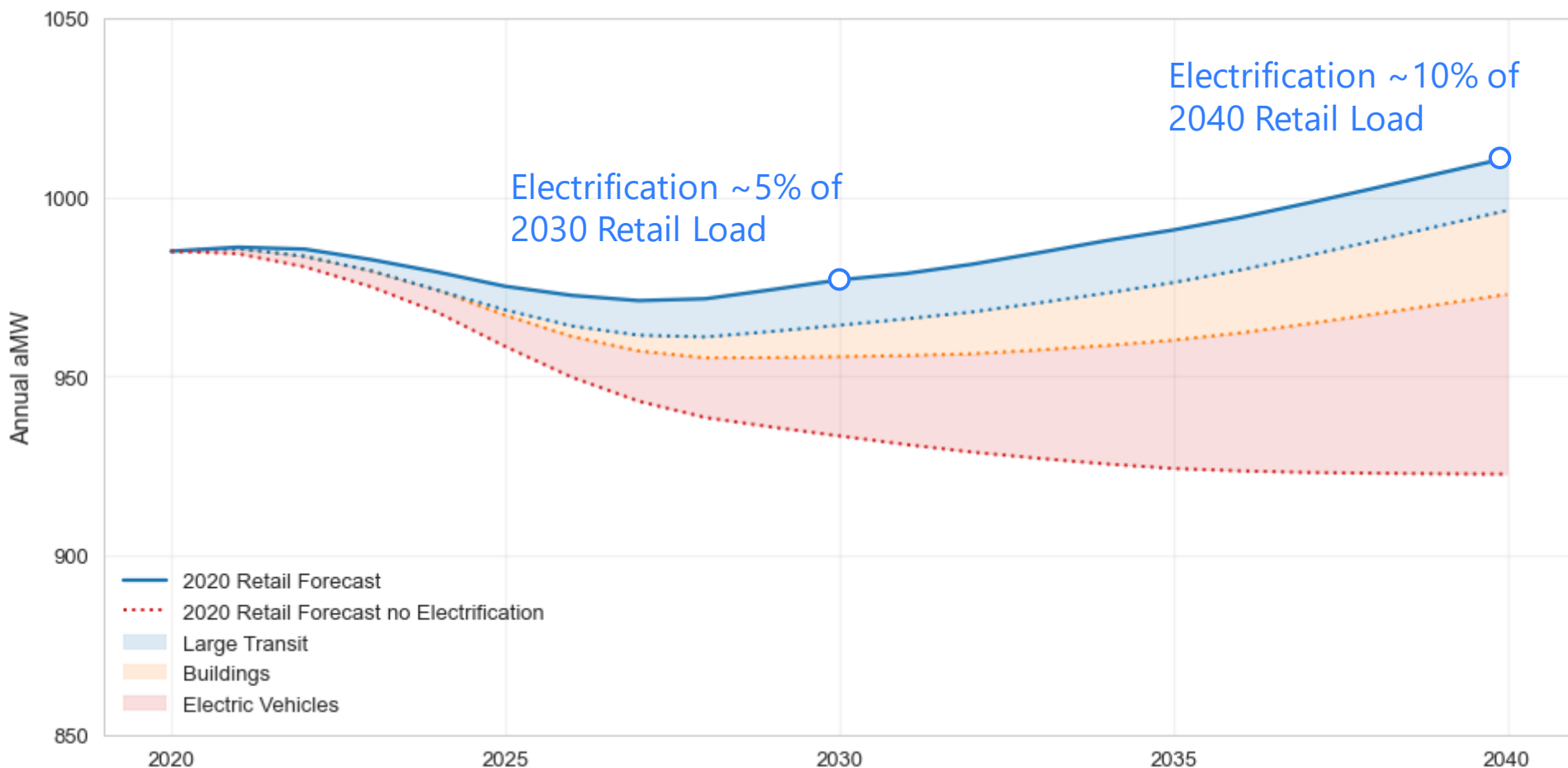
Will undergo some rebalancing leading to a slow down in new construction over next 5 years. Longer-term less floorspace per employee required with stronger transition to remote work economy.



# RETAIL LOAD FORECAST : 2020 - 2040



# IMPACTS OF ELECTRIFICATION ON 2020 FORECAST



# EPRI ELECTRIFICATION ASSESSMENT

- Develop scenarios for electrification, based on City's policy goals, including 100% electrification by 2030.
- Identify impact on demand, infrastructure, gaps and challenges.
- Create tools SCL can use to inform forecasting and planning.
- Cross-departmental collaboration with SDOT, OSE, DCI.
- Kick-off meeting December 2; Draft reports due June 4; Final Report due July 30.





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# NEXT STEPS

Inputs/Timelines



# 2022 PLANNING LANDSCAPE


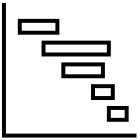

## CLIMATE CHANGE AND RAPID DECARBONIZATION POLICY

	Federal, State and local policies and laws	Washington State 2021 Energy Plan, Seattle Building Codes, Transmission, 100% Clean Electricity laws expanding across the West, Federal Clean Power Plan
	Utility programs	Customer decarbonization goals, rate design, demand response, Equity
	Technologies	Batteries, Longer duration storage, Demand Response, Offshore Wind, Customer owned on-site generation
	Regionalization	Resource Adequacy, Transmission access/expansion, Regional Transmission Organization expansions, BPA 2028 Scenario

# FEEDBACK ON 2022 IRP INPUTS/SOURCES DESIRED

Inputs/ Measures	Current Sources	Scenarios(?)
Social Cost of Carbon, Emission Rate	CETA/EPA, Ecology	Rates fr. Ecology
Temperature/Hydro Conditions(Climate Change)	Historical, UW, RMJOC II	
Environmental Equity Indicators	Puget Sound Sage/Front and Centered	
Demand Forecasts and Shapes	Finance/EPRI Study	Base/Low/High Electrification
Energy Efficiency (Bundles/Shapes)	CPA (Cadmus)	
Demand Response Options	CPA (Cadmus/SCL)	Examples
Distributed Generation (Solar, Battery)	CPA (Cadmus)	Costs/Examples
Large Customer Renewable Program	2020 IRP Framework	
New Renewables/Storage Costs and Trends	NREL, IHS	Cases?
Wind/Solar Generation Profiles	NREL, Climate Change	Cases? Examples
Market Reliance from Region	NW Council, NWPP	WECC
BPA Contract	Current Terms	Contract Structure
Regional Inputs (Loads, Retirements/Builds, Transmission)	EPIS Aurora DB, NW Council, IHS	

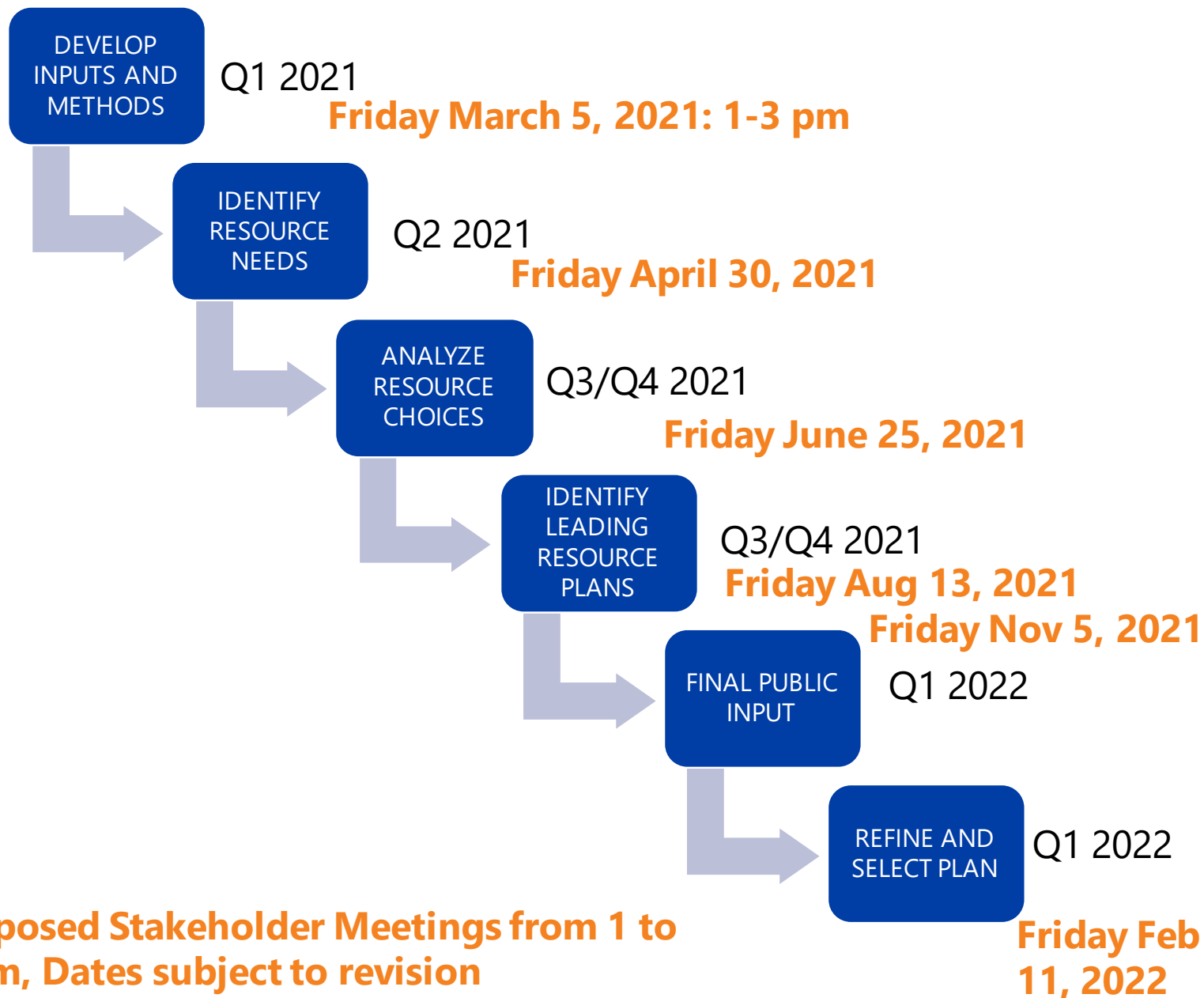
# PREPARING FOR THE 2022 IRP

	<p>Aligning City Light Plans</p>	<p>Strategic Plan (Summer 2021)  Conservation Potential Assessment (Jan 1, 2022)  CETA Clean Energy Implementation Plan (Jan 1, 2022)  Integrated Resource Plan (Sept 1, 2022)  Transportation Electrification Strategic Investment Plan  Transmission and Distribution System Plans</p>
	<p>IRP Analysis</p>	<p>Resource Adequacy Needs Updates  Adding Resource Choices to Study  Electrification and Climate Change Scenarios</p>
	<p>Public Input/ Outreach</p>	<p>Environmental Justice Communities Centric  Language Access  Defining Resilience</p>
	<p>Customer and Regional Collaboration</p>	<p>Customer Choices  Transmission Development  Regional Resource Adequacy Programs  Future Bonneville Contract</p>

Public review / City Council 2021 approval



**Integrated Resource Plan Update**



# CITY LIGHT

## MISSION

Seattle City Light provides our customers affordable, reliable and environmentally responsible energy services.

## VISION

Create a shared energy future by partnering with our customers to meet their energy needs in whatever way they choose.

## VALUES:

-  Customers First
-  Environmental Stewardship
-  Equitable Community Connections
-  Operational and Financial Excellence
-  Safe and Engaged Employees





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# APPENDIX



# ECONOMIC INPUT ASSUMPTIONS

	Historical and Annual Forecast Values				
Seattle City Budget Office Forecast	2010	2019	2020	2030	2040
Population (000s)	2,649	3,057	3,101	3,438	3,796
Employment (000s)	1,396	1,764	1,660	1,987	2,213

10 Year Change		
2020	2030	2040
452	337	358
264	327	226

City Light End-Use Economic Drivers	2010	2019	2020	2030	2040
City Light Multi-Family Households (000s)	157	203	208	242	277
City Light Single-Family Households (000s)	189	198	199	207	215
City Light Commercial Floorspace (000,000)			341	359	371
Floorspace per Employee			205	180	168

2020	2030	2040
50	34	35
10	8	9
	18	12
	-25	-13

City Light Commercial Floorspace + Multi-Family Common Space (000,000)			469	505	537
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	36	32

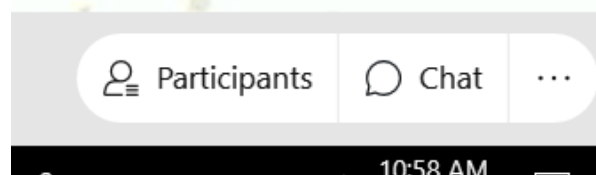
Compared to 2019 forecast in 2040:  
 Total Residential households **lower** by **3%**  
 Total Commercial floorspace **lower** by **1%**



## MEETING SUCCESS TIPS

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- 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