



VISUALIZING THE NET ZERO CITY

Grid Modernization
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 **Seattle City Light**

VISIONING PREMISE

Resilient City

- Located in Pacific Northwest – 100,000 Residents, New Community or Major Redevelopment
- Prepared for natural and man-made hazards
 - Windstorms, flooding, landslides, lightning, earthquakes, etc.
 - Fires, infrastructure failures, cyber and physical attacks

Equitable City

- Presumes electricity a basic need, especially in dense urban areas

Net-Zero City — 100% Carbon Neutral

RELIABILITY & RESILIENCY

Prioritized during urban planning

- Example: **SCL Microgrid**
- Planned and Designed
 - Strategic equipment siting
 - Physical hardening
 - Operational Flexibility
- Cyber-secure, with robust monitoring and response
- Maintenance



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EQUITABLE CITY

Policy and Incentives drive Grid Design

- Electric Power system, aka "The Grid"
 - Built the same for all customers
 - Customers given incentive options
- SCL Piloting **Four New Rate Pilots** – Energy Equity
 - Low Income Customers



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GOAL: 100% CARBON NEUTRAL CITY

SCL Greenhouse Gas Neutral

City owns-buys-generates-stores
green power

- Net-metering
- Power Purchase agreements
- Future Pilots for emerging technologies
 - Data analytics
 - Energy storage
 - Hydrogen
 - CHP and Energy Districts



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GOAL: 100% CARBON NEUTRAL CITY

Policies in place to encourage partnerships
between customers and electric utility

- Systems to manage and coordinate power needs
- “Smart” inverters, meeting the needs of the grid
- Demand Response
- SCL Piloting **New Rates**
 - Residential Time of Day
 - Commercial Charging: Electrification Incentive
 - Industrial Demand Response

