Strategic Investments for Long-Term Reliability

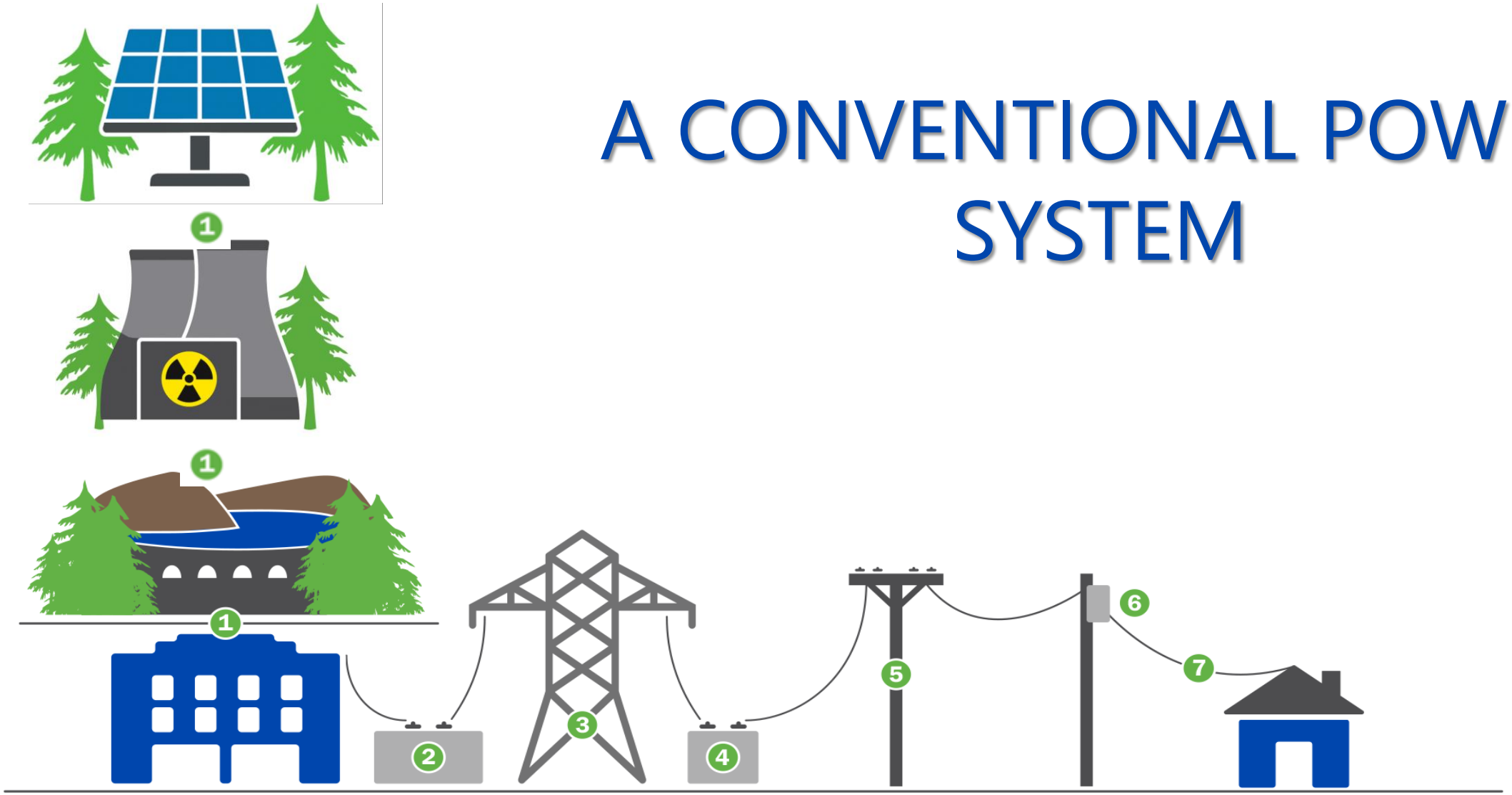
Sustainability, City Light, Arts & Culture Committee

December 5, 2025

Seattle City Light

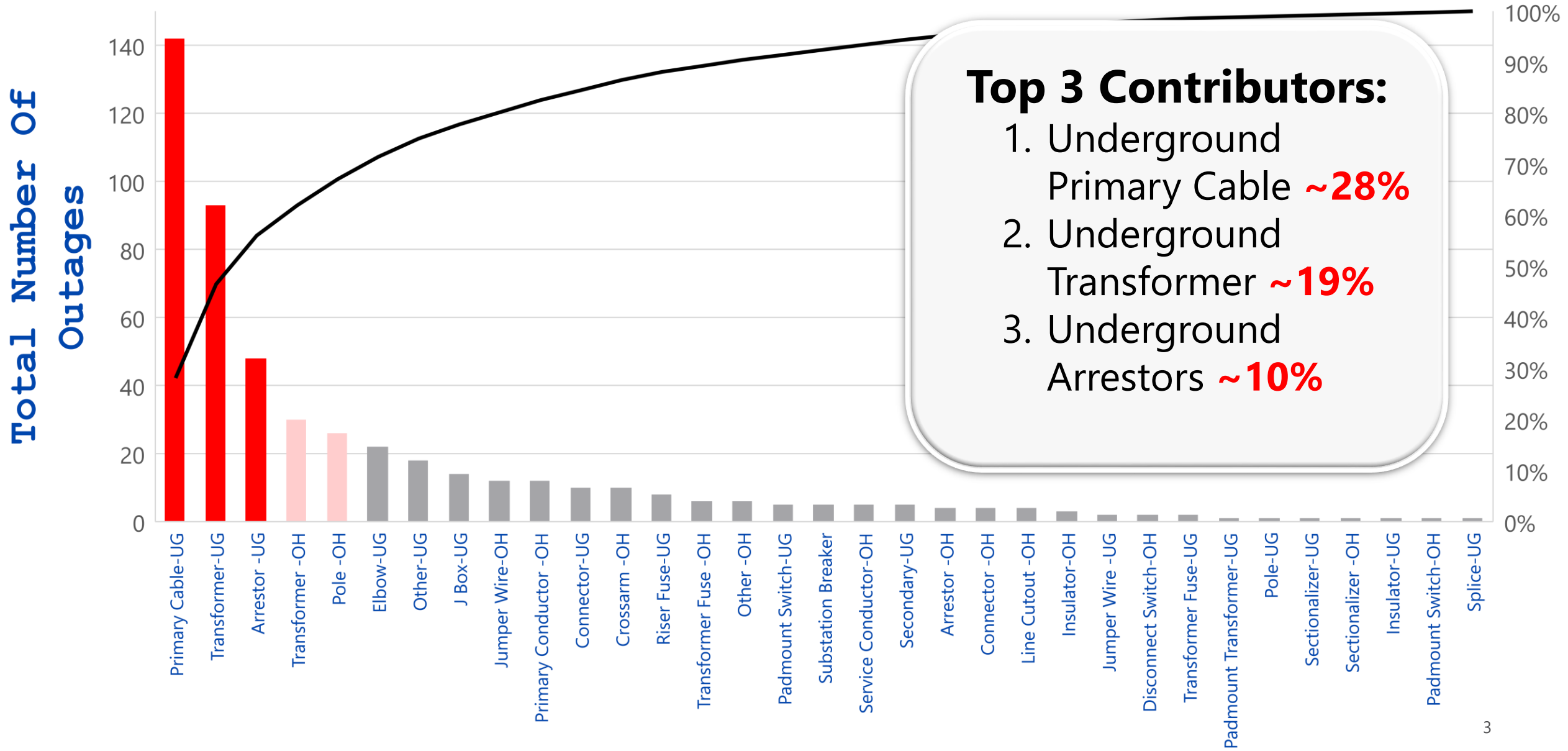
WE POWER SEATTLE

A CONVENTIONAL POWER SYSTEM



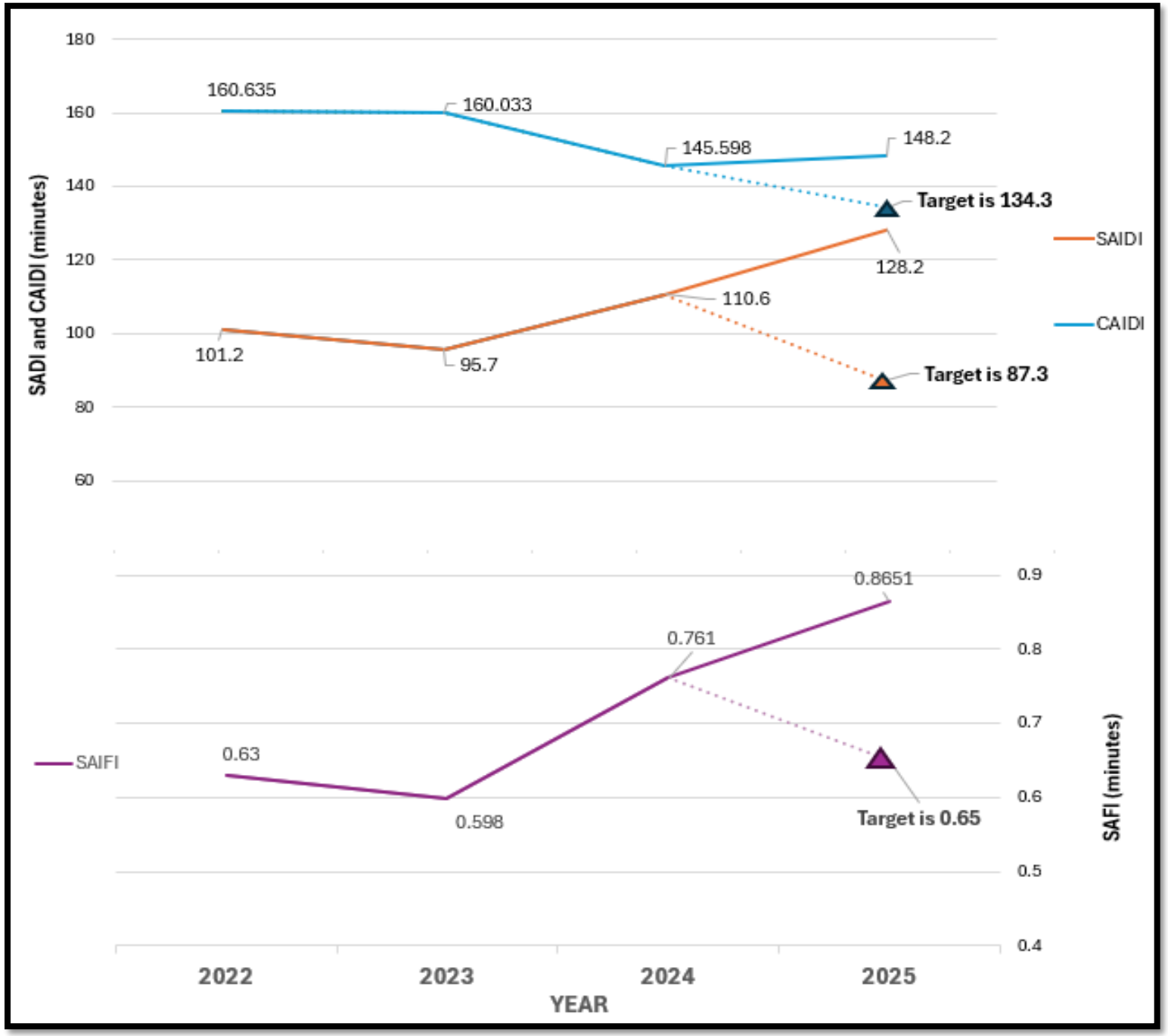
1. Power is generated from dam/powerhouse /nuclear/solar
2. Substation transformer steps up voltage for transmission
3. Transmission lines carry electricity long distances
4. Neighborhood substation transformer steps down voltage
5. Distribution lines carry electricity to residents
6. Transformers on poles step down electricity before entering residence
7. Service line for resident

Outage Causing Failed Equipment March 2024 - February 2025



Top 3 Contributors:

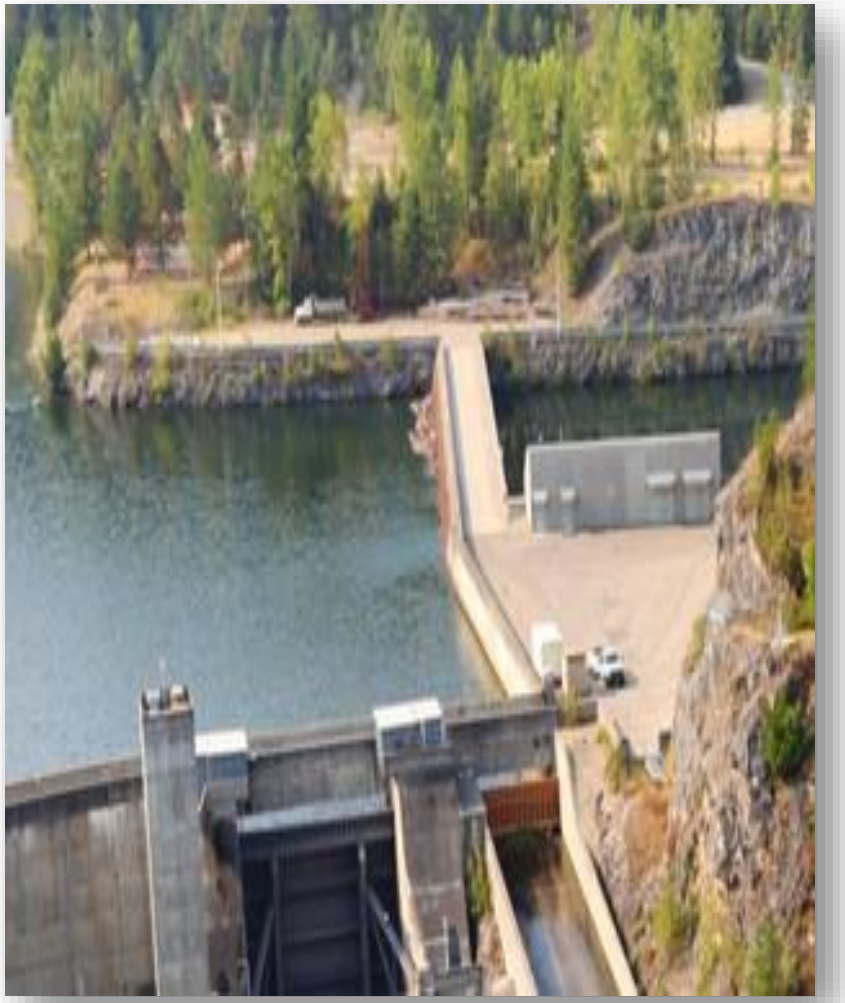
1. Underground Primary Cable **~28%**
2. Underground Transformer **~19%**
3. Underground Arrestors **~10%**



SEATTLE CITY LIGHT RELIABILITY METRICS 2022-2025

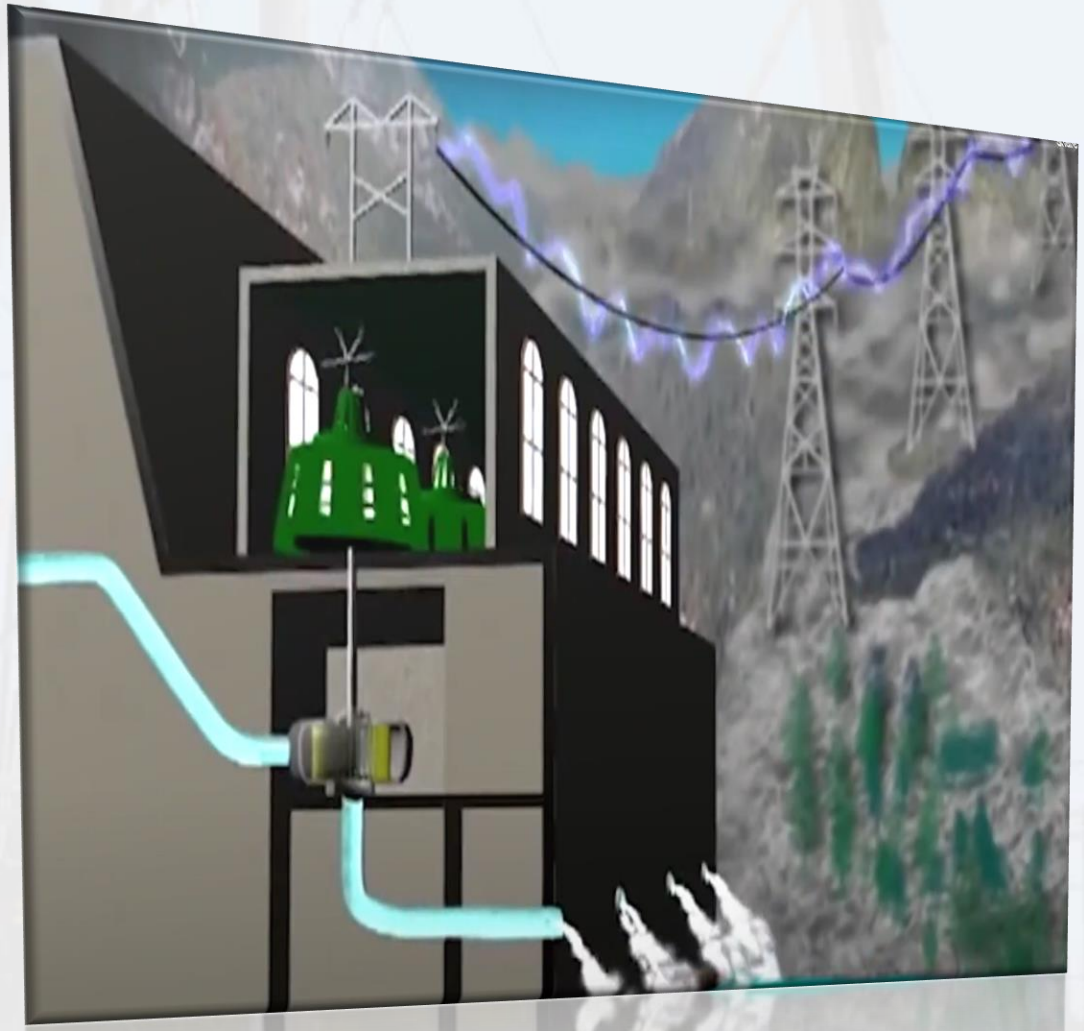
GENERATION INVESTMENTS

- Skagit Relicensing Requirements
- Boundary Forebay Bridge Replacement
- Gorge Dam Superstructure
- Gorge Powerhouse Hydroelectric Unit Rebuilds
- Cedar Falls Hydro System Rebuild
- Other



Boundary Forebay Bridge

TRANSMISSION INVESTMENTS REQUIRED



- Wildfire Mitigation
- Aging Infrastructure
- Capacity Upgrades
- Direct-to-Customer Large Loads (Centrio, Data Centers, UW)

SUBSTATION INVESTMENTS

Harbor Island Substation (New)

Highline Substation (Possible)

Transformer Replacements

Control Replacement and DA (3X)

Battery Storage

DISTRIBUTION INVESTMENTS

Increasing Load in Neighborhoods and Commercial Districts Alike

Direct-Buried Underground Cable Replacement

Underground Transformers & Overloaded Transformers

Pole Replacement Program

Building Performance Standards

Battery Storage Program to Help at Peak Times/Outages

STRATEGIC INVESTMENTS BALANCING ACT

External Projects

- Data Centers
- Sound Transit/WSDOT/ Port of Seattle
- King County Metro Bus Electrification
- Centrio / UW

Internal Impacts

- Resources
- Cost Escalations
- Material Timelines

THANK YOU

Seattle City Light