

## ENERGY CONSERVATION 10-Year Potential and 2-Year Target Natasha Houldson/Rich Arneson October 13, 2021



# What is Energy Conservation?

The Northwest Power and Conservation Council defines conservation as:

"Any reduction in electric power consumption as a result of increases in the efficiency of energy use, production, or distribution."

It excludes other things like....

- Cutting back on production
- Loss of amenity (shivering in the dark)



## Beyond Regulatory Commitment

- Each biennium we set a conservation target and report it to the state
- We have historically exceeded our targets



## **Our Conservation Legacy**





Since 1980, Tacoma Power made conservation a priority resource Conservation now delivers about as much as Mayfield dam Achieved enough conservation to power 59,470 average homes



## A Two Year Cyclical Process

Determine conservation potential & target

Conservation potential assessment

Research new opportunities and update existing options Develop portfolio of programs to achieve the target (Conservation Plan)

Run and refine conservation programs, interact with customers, acquire savings



## Energy Conservation Potential Assessment

Simply stated, a conservation potential assessment (CPA) is a data driven process that...

- helps a utility identify the full range of conservation opportunities in its service area and...
- establishes an upper bound to what can be called cost effective conservation given the utility's resource



# Energy Conservation – State Law

The Energy Independence Act requires qualifying utilities to determine their conservation potential (19.285.040(1)(a) RCW)

Requires qualifying utilities to establish:

- 10-year achievable economic conservation resource potential
- 2-year conservation target that is "no less than its pro rata share of its ten-year potential."

These metrics must be developed and adopted every two years

We recommend the Board adopt both metrics prior to January 1, 2022

• The target sets the 2022/23 conservation acquisition baseline against which Tacoma Power will be judged for compliance purposes



## Past Success Results in Reduced Potential

Exceeding targets early reduces remaining conservation

450,000 400,000 350,000 Distribution 300,000 JBLM Commercial Street Lighting 250,000 Industrial 200,000 Commercial 150,000 JBLM Residential 100,000 Residential 50,000 0 2014 CPA 2016 CPA 2019 CPA 2021 CPA

CPA Potential by Sector and Study Year



#### Metric 1:

### Ten-Year Conservation Potential 217,109 MWh

	Economic Achievable
Sector	Potential (MWh)
Residential	52,878
Commercial	87,574
Industrial	58,152
JBLM Residential	1,137
JBLM Commercial	8,932
Street and Off-Street Lighting	1,866
Distribution Efficiency	6,570
Total	217,109



#### METRIC 2:

## Two-Year Conservation Target 53,114 MWh

#### Target we are asking the Board to adopt

- Must Hit!
- Failure will result in fines

#### 24.5% of the 10-year potential

- Meets the pro-rata share requirement
- Will be modeled in IRP and load forecast

#### Annual Objective ~ 26,000 MWh

- About 0.5% of our 2020 retail sales
- Enough to power approximately 2,260 average homes





## Next Steps

### We will request adoption of:

- Metric 1: A ten-year achievable economic potential of 217,109 MWh
- Metric 2: A two-year conservation target of 53,114 MWh

