



Water To Wire Heating Homes with Hydro

SEAPA



Southeast Alaska Power Agency

Fun Facts About SEAPA



2nd Largest Electric Transmission System in Alaska

Tyee: 3rd highest-yield hydro in Alaska



Petersburg

Wrangell

Tyee Lake

Ketchikan

Swan Lake

Services 3
Communities

2 hydro plants

175 miles of
transmission

12 miles of
submarine cables

175+ Giga-Watt
hours/year



Your Low-Cost Wholesale Provider

About SEAPA

Swan Lake

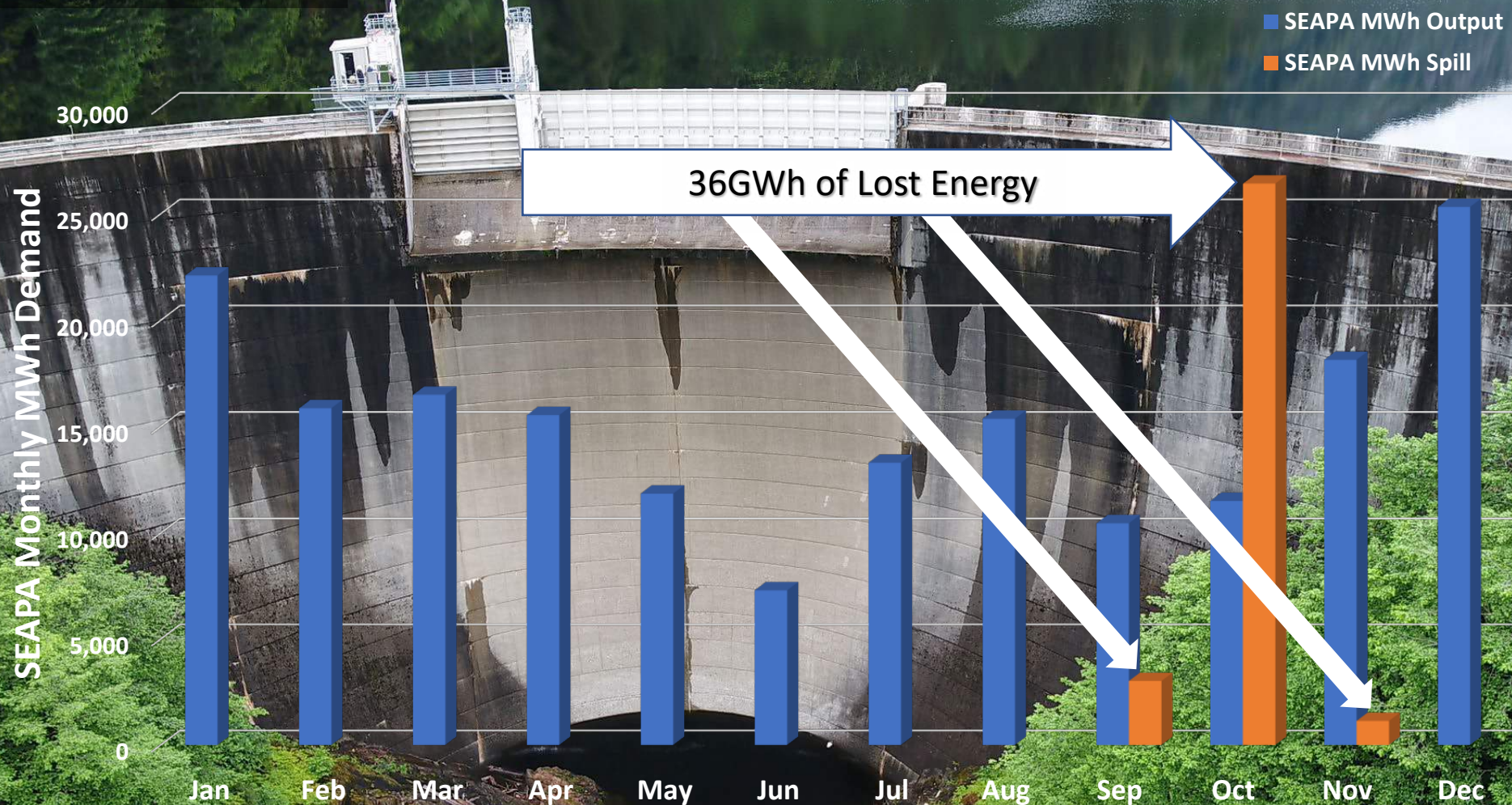


100% Renewable
99% of the time

Your Low-Cost Wholesale Provider

Trend Analysis - Capacity

Capacity & Spill A Year in the Life of SEAPA: 2022 Megawatt-Hour Outputs



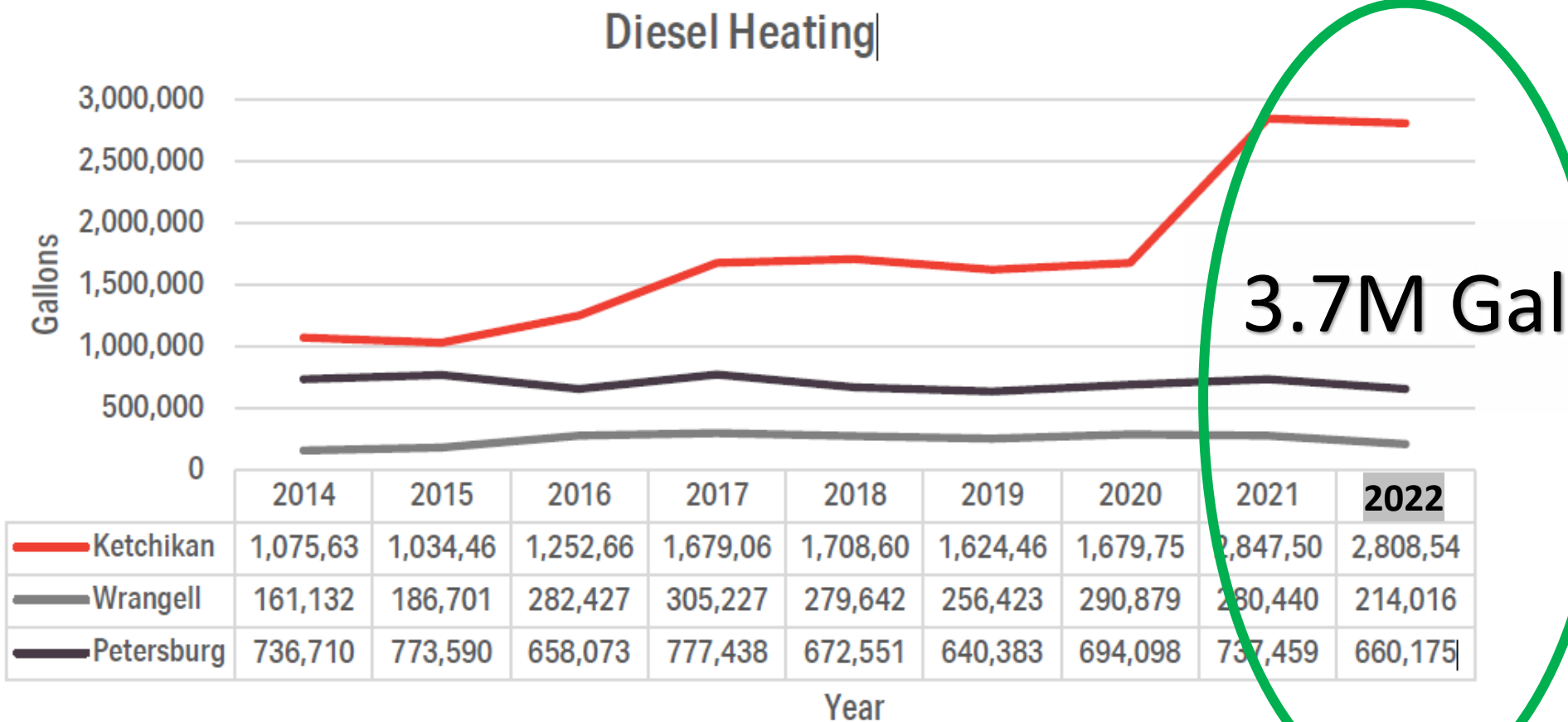
**GWh Capacity is
200+GWh**

**~180GWh
Dispatched in
2022**

**Average Spill
between
20GWh –
30GWh**

Your Low-Cost Wholesale Provider

Trend Analysis – Diesel Heating



Your Low-Cost Wholesale Provider

Diesel Heating Calculations

Overview

36GWh of Energy required to convert Fuel Oil Heating to Heat Pumps

=

36GWh spilled Energy in 2022

Existing Fuel Oil Boilers

\$4 - \$5 per gallon of Diesel Fuel Oil

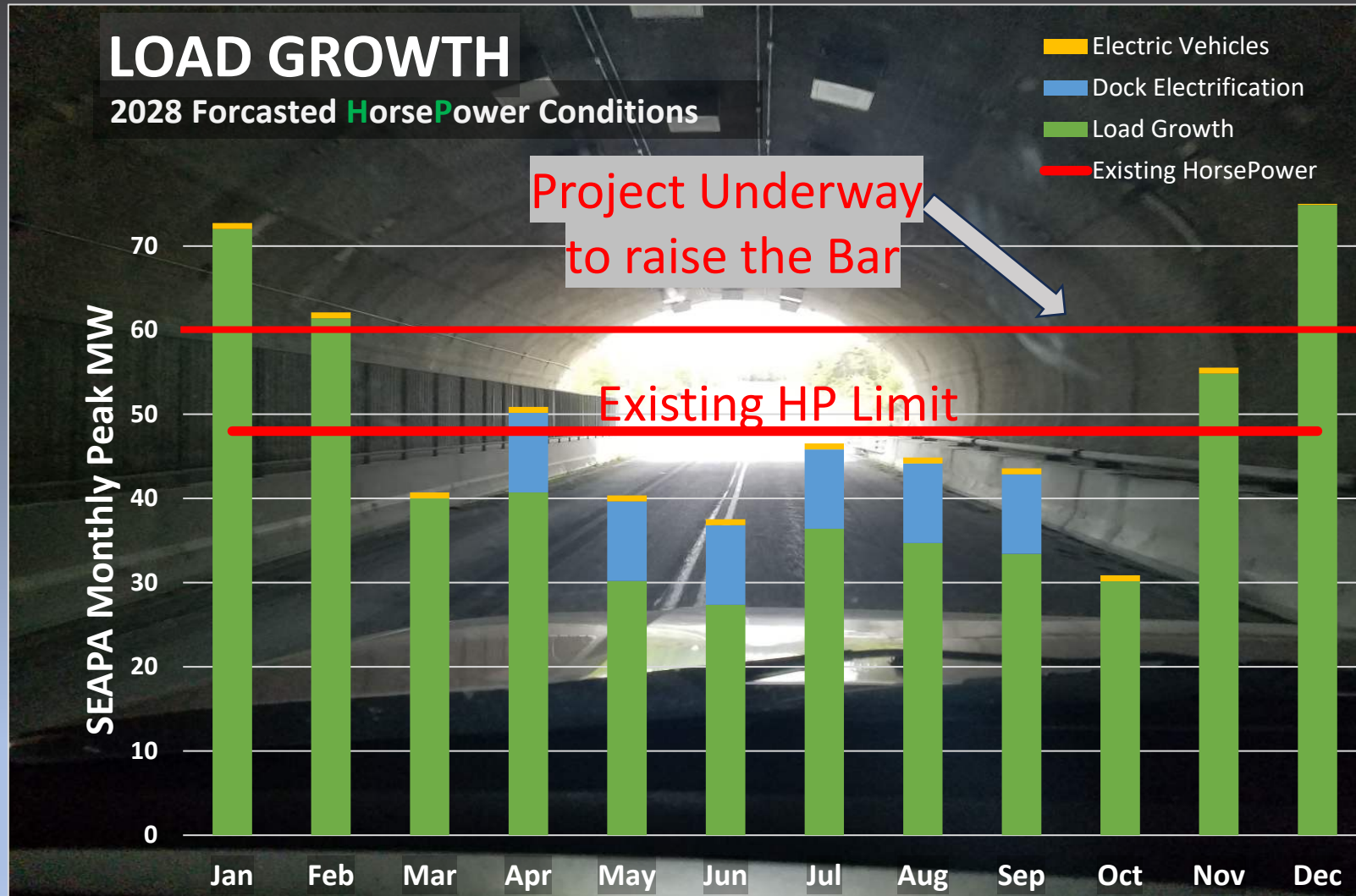
Heat Pump Systems

\$1.62 per equivalent gallon of Diesel Fuel Oil

 Your Low-Cost Wholesale Provider

Load Growth – Horsepower

FUTURE



Forecasted HP
Growth is 2.52%

Heat Pump conversions
dock electrification and
electric vehicles included

Increase MW from
48MW to 60MW
(16,000HP)

Your Low-Cost Wholesale Provider

New Generator at Tyee

FUTURE



Tyee 3rd Turbine

Tyee was built with provisions for another generator

Increase Tyee HP by 50%

Increase SEAPA HP by 25%

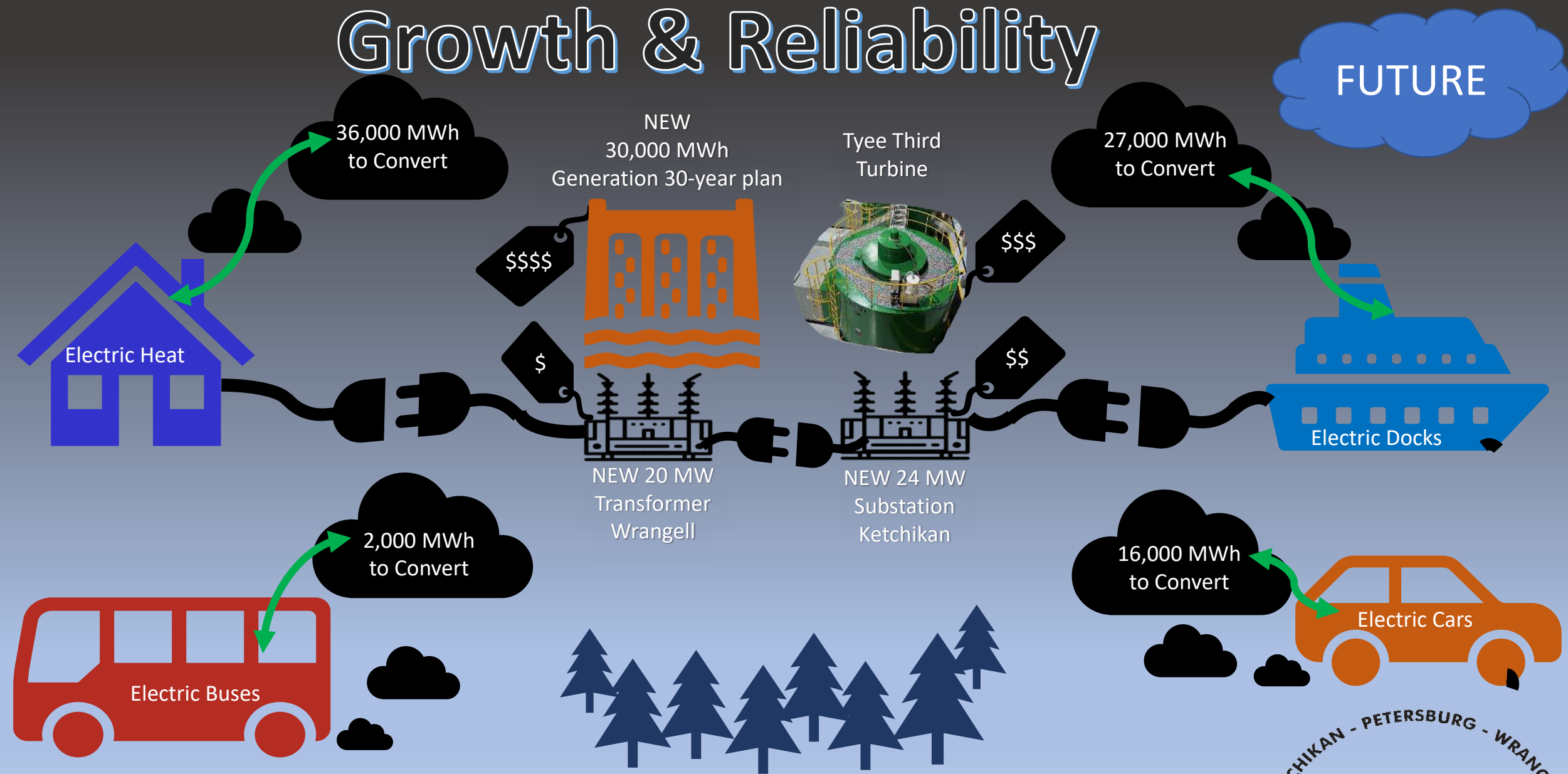
Increase Contingency

Increase Resiliency

Low Hanging Fruit

Your Low-Cost Wholesale Provider

Growth & Reliability



Your Low-Cost Wholesale Provider

Questions/Discussion



Your Low-Cost Wholesale Provider

