Overview PSE - Green Direct program

- Recommend authorization to participate
- Power purchase agreement = Direct purchase of wind power for fixed rate over 10 years
- No impact on energy security or O&M
- Commit in 2017 – Product online 2019
- Enrolling PSE Link accounts = light rail runs on 100% renewable energy 2019-2022
Alignment ST’s GHG reduction mandate

2007 Board Resolution
Sustainability will be integrated into all aspects of agency business

2011 & 2015 Sustainability Plan – Board Approved
GHG emissions reduction and carbon neutrality goals – by 2030:
• Facilities and all electricity are carbon-neutral

ST3 Plan
Reaffirms agency goals
Alignment **Strong regional GHG commitments**

**Carbon Neutrality Goals**
- City of Seattle – gov’t & community by 2050.
- King County – county operations by 2025.

**GHG Reduction Goals**
- K4C - 25% by 2020 and 50% by 2035
- WA State – 1990 levels by 2020; 20% below 1990 by 2035
Alignment International leadership

★ Calgary - light rail ★ Netherlands - all rail by 2018

Carbon neutral rail systems
Cost Power Purchase Agreement

NW Projection - High
NW Projection - Mid
NW Projection - Low
PSE Ave
PSE
Green
Direct

$600,000
$550,000
$500,000
$450,000
$400,000
$350,000

2019 2020 2021 2022 2023 2024 2025 2026 2027 2028
Feasibility Utility impacts

- GHG emissions vary between utilities serving Link
- As Link grows out of SCL territory, electricity becomes "dirtier" & GHG emissions go up
ST2 build out = more to offset

- Fossil fuel
- Carbon free (renewable & hydro)

2016 - 22
- 27M kWh
- 3M kWh

2023 - 30
- 122M kWh
- 31M kWh
Feasibility Recalibrating Carbon Neutrality Strategy

- Strategy needs to address Link light rail major expansion phases
- Return to Board with long-term strategy in next 2-3 years

2019-22 Green Direct
2023-29 ?
2030-36 ?
Feasibility Pathways to neutrality

- Electricity Conservation
- Onsite Renewables
- Change Power Source PPA
Summary **Green Direct program**

- The right thing to do
- Aligns with Agency Mission
- Aligns with Regional Climate Leadership
- Feasible
- Cost-effective