

Proposed Purchase of **Green** **Direct Renewable Electricity**

Proposed Ordinance 2017-0035



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Presentation Overview

- **Legislation Purpose**
- **Alignment with Climate Policy goals**
- **Green Direct: How it works, roles**
- **Wind Power**
- **Fiscal Impact**
- **Benefits**
- **Legislation package**
- **Timing**



Proposed Ordinance 2017 - 0035

- Authorizes agreement with Puget Sound Energy to purchase renewable wind energy for most County facilities in PSE service territory for 10-year period beginning in 2019
- This power purchase option is known as “Green Direct”
- King County’s purchase will support the development of a new utility-scale wind farm in SW WA.



Climate Goals & Policies

- **2015 Strategic Climate Action Plan (SCAP)**
 - ✓ Reduce GHG emissions 80% by 2050
 - ✓ Electricity supplied for County operations to be GHG neutral by 2025
 - ✓ Target to consume renewable energy equal to 70% of County operations by 2020 and 85% by 2025.
- **Ordinance 17971**
 - ✓ Requires Wastewater Treatment and Solid Waste Divisions to be carbon neutral by 2025

▶▶ KING COUNTY STRATEGIC CLIMATE ACTION PLAN ▶▶ SECTION ONE

Goal Area 2: BUILDINGS AND FACILITIES ENERGY



The BioEnergy Washington (BEW) renewable natural gas facility at the Cedar Hills Regional Landfill is a unique partnership between King County, BEW and Puget Sound Energy.

KEY TAKEAWAYS

- ▶ Building and facility energy use is the region's second largest source of GHG emissions.
- ▶ King County has taken significant action to conserve energy in day-to-day operations of county government, reducing energy use in County buildings and facilities by 15 percent compared to 2007, resulting in savings of more than \$3 million per year since 2010.
- ▶ King County has developed and generates significant renewable energy sources from its operations – primarily at the Cedar Hills Regional Landfill, South Wastewater Treatment Plant, and at the West Point Wastewater Treatment Plant - an amount that in total is equivalent to more than half of the County's operational energy needs.
- ▶ King County is partnering with utilities and others to phase in cleaner fuel sources and support expanded energy efficiency and renewable energy production, including a commitment among K4C partners to pursue energy efficiencies and renewable energy sources.



Green Direct: How it works

- ✓ Approved by Utilities and Transportation Commission in September 2016
- ✓ 10, 15, or 20-year contracts with set prices over the term of the contract
- ✓ First-come, first-served
- ✓ King County commits to purchase green electricity for enrolled facilities but pays only for kWh used; no penalty for conservation



Green Direct: How it works

- ✓ PSE will not apply the renewable energy produced towards state Renewable Portfolio Standards and also will retire the Renewable Energy Credits (“RECs”).
- ✓ This means that the renewable energy will be additive and “count” toward King County’s GHG emissions reductions.
- ✓ Other parties already committed: Mercer Island, Bellevue, Sound Transit, Anacortes & WWU
- ✓ Other parties considering: Snoqualmie and other K4C cities



Green Direct: Roles and Relationships

RES Americas

- Secures Financing
- Builds project in 2017 - 2018
- Sells wind power to PSE
- Operates wind facility

PSE

- Conducted Request for Information
- Received Tariff approval from UTC
- Enters into Service Agreements
- Purchases electricity from RES Americas
- Provides transmission of electricity
- Audits production and manages environmental attributes

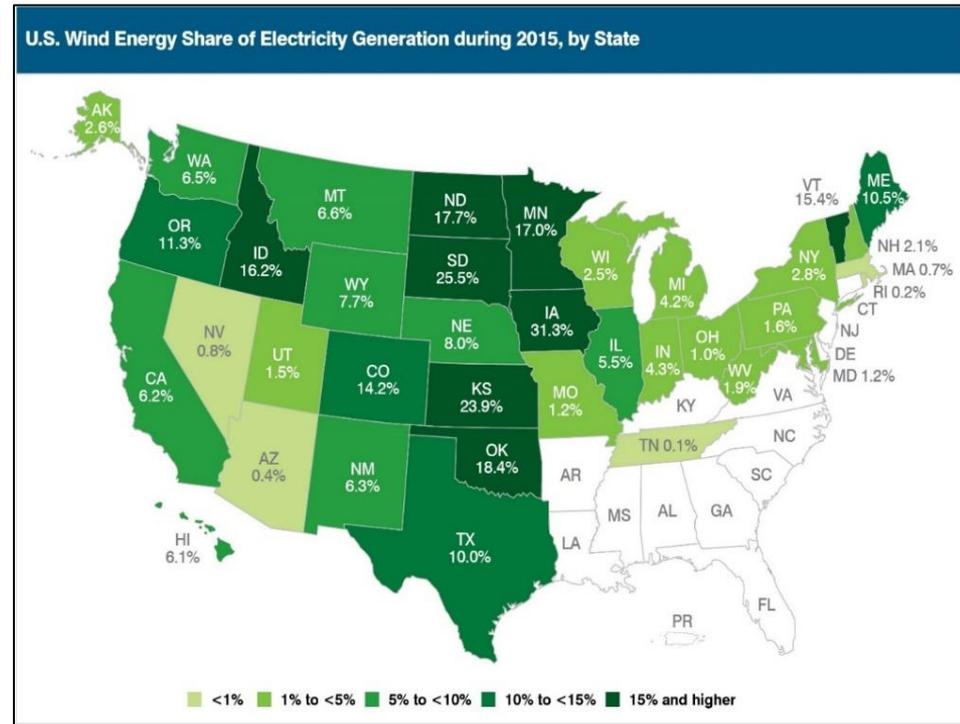
King County

- Identifies facilities to be served and term
- Executes Service Agreement with PSE
- Pays Green Direct Tariff when wind power comes on line, to start in 2019
- Continues as full PSE customer
- Achieves estimated 20% reduction in direct GHG emissions!



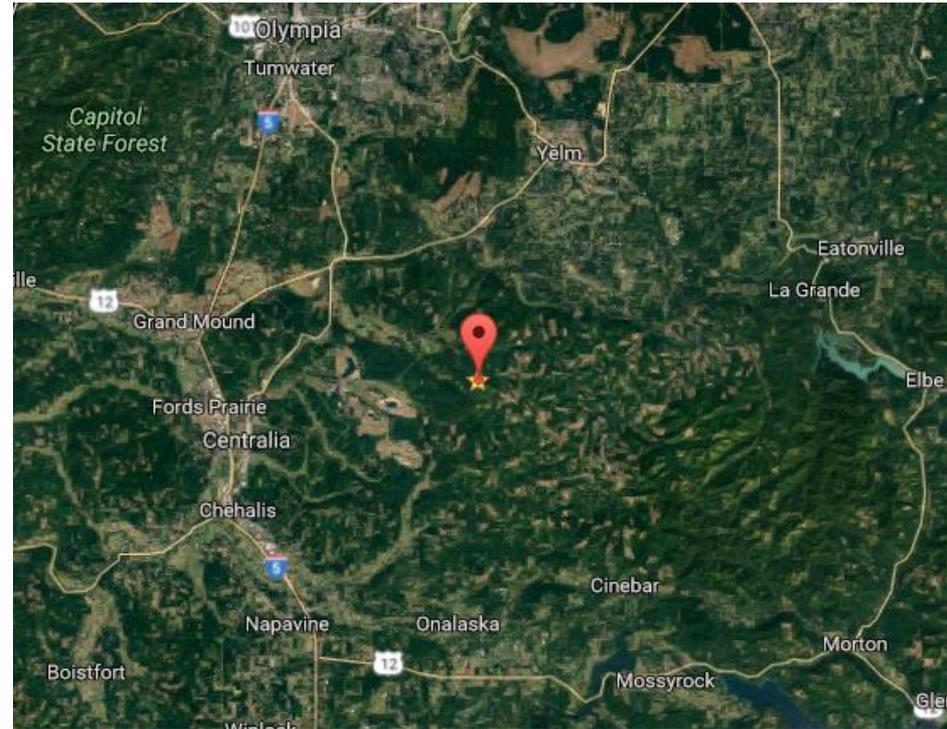
Advantages of Wind Power

- **Lowest impact electricity generation source**
 - ✓ Virtually no carbon emissions over lifecycle of turbines
 - ✓ Wildlife impacts significantly lessened with new designs
- **Mature technology with predictable long-term costs**
 - ✓ No fuel costs
 - ✓ Minimal maintenance
 - ✓ Long product life
- **Rapid growth and adoption in US**
 - ✓ Total wind capacity projected at 404GW in US by 2050, up from 74GW in 2015



Wind Project Background

- ✓ Located in Lewis and Thurston counties
- ✓ On Weyerhaeuser land
- ✓ Permitting and environmental review (SEPA) in process
- ✓ Project to begin generation by January 2019



Fiscal impacts

- The price of “standard” power fluctuates (overall increasing trend).
- Compared fixed escalation schedule for Green Direct vs. projected 3% average annual increase in Seventh Northwest Power Plan.
- Green Direct price is projected to be higher than standard power until approximately 2023, then lower for remainder of term.
- Projected *savings* over 10-year term is estimated to be \$938,893.

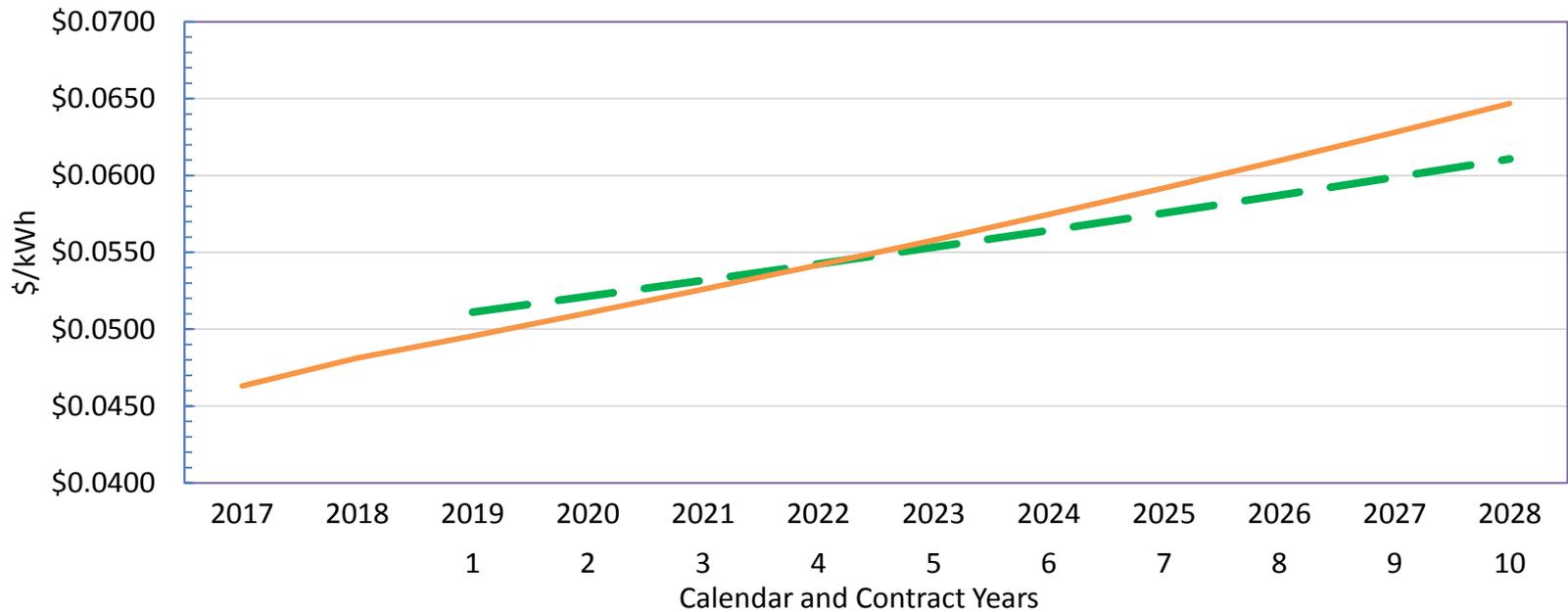


**S E V E N T H
N O R T H W E S T
P O W E R P L A N**



Cost Projections

PSE Electricity: 10 Year New Wind
vs. Base Rate Scenario



Green Direct

PSE Base Rate @ 7th Power Plan Estimated Annual Increase (3.0%)



Benefits of Proposed Legislation

- Reduces direct greenhouse gas emissions from county operations by estimated 20%.
- King County's electricity purchase catalyzes development of new renewable energy production in Washington State.
- Builds on county investments in building efficiency
- PSE assumes risks and costs for contracting, energy production, transmission, and auditing.
- More certain energy prices and projected savings over contract term.
- King County remains full customer of PSE and partner on energy efficiency projects.



Legislation

- Commits to expenditure beyond adopted 17-18 budget; seeking Council authorization to enter into agreement.
- Package includes Ordinance, Service Agreement (Attachment A) and list of facilities to be enrolled in Green Direct (Attachment B).
- Pricing and Service Agreement provisions were approved by the UTC as part of the formal Tariff review process initiated by PSE.
- The King County PAO has reviewed the Service Agreement provisions.



Timing

- PSE is seeking finalization of the service agreement as soon as possible to firm up the customer base as they move forward with 2019 timeline for wind energy delivery.
- Action in February would ensure that we can access to this option and help to position King County as a leader on renewable energy development and use.

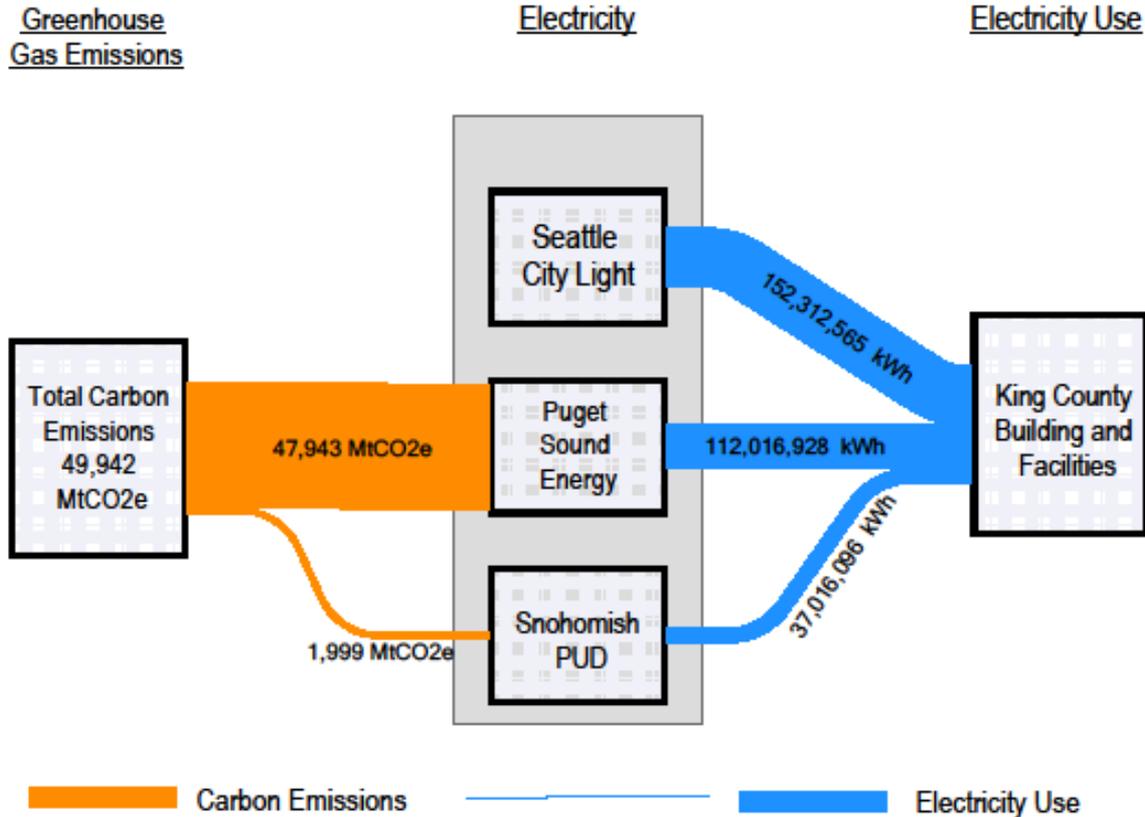


Questions?



Additional Slides

King County Annual Carbon Emissions from Electricity Use



Bird Impacts

- Industry has improved design of turbines to minimize impacts on birds and bats
- Environmental review includes wildlife impacts
- Domestic cats, building windows, and cars are top causes for bird deaths

