

CLACKAMAS COUNTY BOARD OF COUNTY COMMISSIONERS
Sitting as the Governing Body of Water Environment Services

Policy Session Worksheet

Presentation Date: April 28, 2020

Approximate Start Time: 1:30pm

Approximate Length: 45 Minutes – joint with DTD

Presentation Title: Proposed Renewable Energy Purchase Options

Department: Water Environment Services

Presenter: Greg Geist, WES Director

Other Invitees: Amanda Keller, County Counsel, Greg Eyerly, WES Operations Manager

WHAT ACTION ARE YOU REQUESTING FROM THE BOARD?

Direction on what renewal energy options Water Environment Services (“WES”) can pursue with Portland General Electric (PGE) and bring back to the Board for final approval.

BACKGROUND & ISSUES:

WES is the largest user of electricity of the departments in Clackamas County making up for approximately one half of the County’s electrical use. Over the past 5 years, WES’ has spent \$1.412 million dollars a year on average on electrical cost alone. Because of WES’ high use of energy related to Wastewater Treatment, the County can greatly offset the associated greenhouse gas emissions by partnering with PGE to invest in new, renewable clean energy generation.

What is “new” energy? New energy is generated by power projects that began operations after January 1, 2001. Because these facilities are recent additions to the electric grid, the electricity they generate offsets older forms of generation that typically generate more air pollution. All of the renewable options PGE offers, wind or a combination of renewable energy, qualify as “new”.

If WES chooses a renewable clean energy option, where does the money go? Funds received from participating customers are used to purchase renewable energy certificates from regional renewable energy facilities equal to the customer's purchase and may support the construction of new community-based projects that increase public education and awareness of renewable technologies as well as growing the support for renewable energy through customer education and outreach efforts and to cover the costs of offering the program.

PGE is required by regulations to allocate the costs associated with PGE's renewable power program to customers who choose to participate, and PGE does not make a profit by offering renewable options to customers. For every dollar spent, 67% goes to the purchase of renewable energy and 33% towards education, outreach and administration.

What are Renewable Energy Credits (REC)? When a renewable energy facility operates, it creates electricity that is delivered into a vast network of transmission wires, often referred to as “the grid.” Only one certificate may be issued for each unit of renewable electricity produced. The purchase of renewable certificates helps offset conventional electricity generation in the region where the renewable generator is located. The purchase also helps build a market for renewable electricity and may have other local and global environmental benefits such as reduced global climate change and regional air pollution. The renewable certificates in this product are verified and certified by Green-e® Energy.

WES can continue with the current practice of purchasing energy at the cheapest option available and by doing-so, 20% of the energy the County purchases is from a renewable energy source. However, the better meet the County's climate action plan and to help facilitate and accelerate investment in renewable clean in the region, WES can purchase REC's from a multitude of options listed below:

What is needed is direction of which of these renewable energy options WES can develop and bring back to the Board for final approval. Option D, Enroll in Green Future Impacts, has the greatest impact of developing renewable clean energy sources for the future. The issue is the last time this option was opened for investment, it sold out in 90 seconds. The City of Portland, City of West Linn and The City of Milwaukie all participated in that energy enrollment. In order for WES to develop this option, we are asking for direction from the Board to provide some basic guidance to move forward.

FINANCIAL IMPLICATIONS:

This will increase WES expenditures by \$75,000 per year.

Are these items in your current budget? y YES NO*

What is the funding source? FY19-20 WES Budget – ratepayer supported. No general fund dollars will be used for WES efforts.

STRATEGIC PLAN ALIGNMENT

This aligns with several of WES' Strategic Goals:

1. Achieve high performance in the "Ten Attributes of Effectively Managed Utilities" which includes "Community Sustainability" and "Operational Optimization."
2. Addressing sources of energy to reach a goal of 100% renewable.

These align with the County's Strategic Goals in that it helps address climate change which is an issue that touches on almost every Performance Clackamas goal. At present it is not explicitly addressed in Board-level strategy, but it is a lens that provides a key perspective on economic development, our use of natural resources, infrastructure priorities and even public health and safety

LEGAL/POLICY REQUIREMENTS:

Green Future program requires a subscriber agreement and a 10 or 15 year commitment.

PUBLIC/GOVERNMENTAL PARTICIPATION: Discussed with WES Advisory Committee. Cities managing their own public/governmental participation efforts. Potential broader public engagement with joint governing body meeting on May 21st.

OPTIONS:

- Option A: Stay as is and achieve a 20% renewable goal as required by the Renewable Standard enacted by State Law (SB1547)
- Option B: Purchase C&I Clean Wind Renewable Energy Credits (RECs) which is 25% sources locally and 75% nationally. Approximately \$3/MWh (\$42,000 per year based on 2018 WES Usage)
- Option C: Purchase Oregon Based RECs – 100 % local, mix of renewables approximately \$5-\$6/MWh (\$70,000-90,000per year based on 2018 WES usage)

Option D: Enroll in Green Future Impact Fixed price premium (closed): \$1.00/MWh for 15yr term (\$14,000/year based on 2018 usage) \$1.50/MWh for 10yr term (\$21,000/year based on 2018 usage)

RECOMMENDATION:

Staff recommends the Board approve Option C: Purchase Oregon Based RECs 100 % local, mix of renewables approximately \$5-\$6/MWh (\$70,000-90,000per year based on 2018 WES usage) and transition to Option D when option becomes available again, Enroll in Green Future Impact Fixed price premium (closed): \$1.00/MWh for 15yr term (\$14,000/year based on 2018 usage) \$1.50/MWh for 10yr term (\$21,000/year based on 2018 usage)

ATTACHMENTS:

SUBMITTED BY:

Division Director/Head Approval _____

Department Director/Head Approval GG

County Administrator Approval _____

For information on this issue or copies of attachments, please contact Lauren Haney at 503-742-4591
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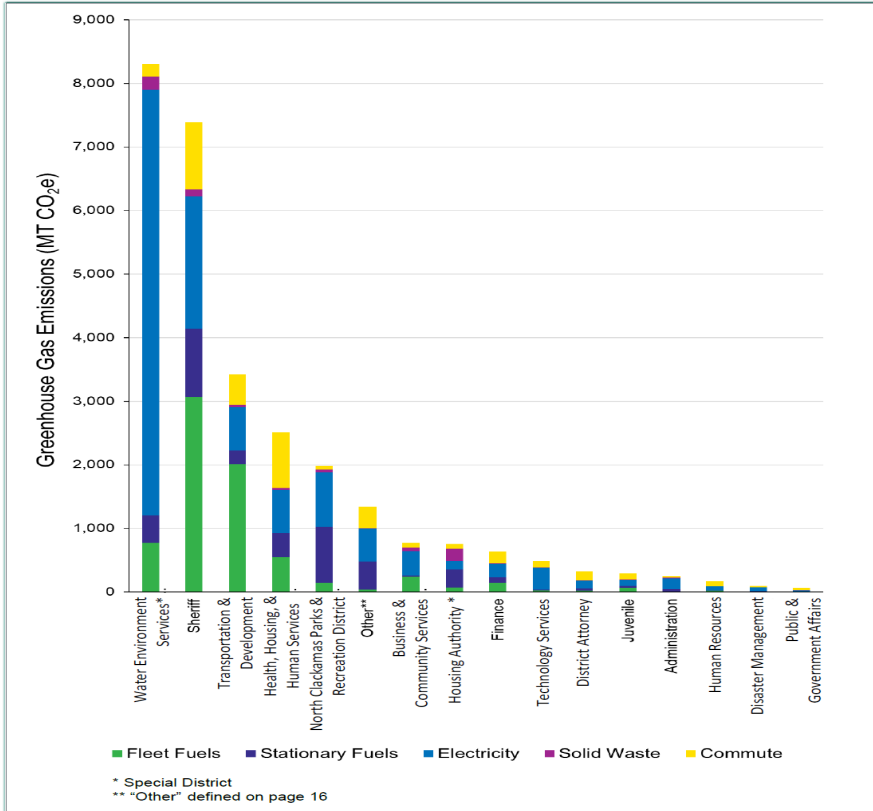
CLACKAMAS

WATER
ENVIRONMENT
SERVICES

Renewable Energy Options



COUNTY CLIMATE ACTION PLAN – CARBON EMISSIONS



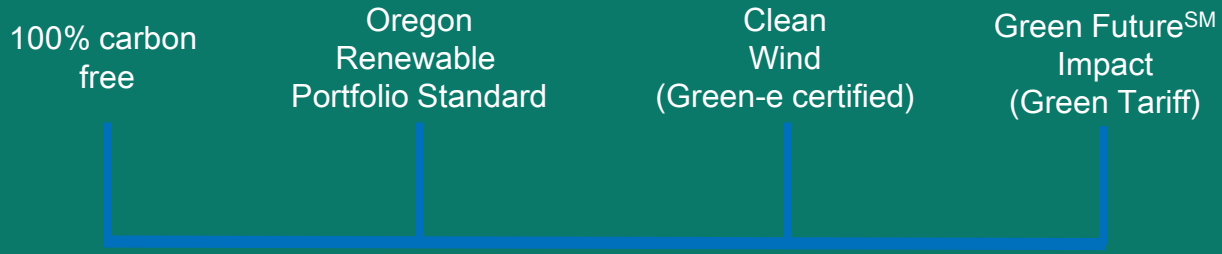
- WES is Clackamas County's leading contributor of Green House Gas Emissions due to electricity demand.



Renewable Energy Options

- Option 1: Maintain status quo which is currently at 20% of goal due to Renewable Portfolio Standard (PGE)
- Option 2: Purchase Renewable Energy Credits (RECs) from PGE in the C&I Clean Wind at \$3/MWh
- Option 3: Purchase Oregon based RECs from PGE at \$5-6/MWh
- Option 4: Prepare to enter agreement for Green Future Impact Program estimated at \$1.00-1.50/MWh based on length of agreement

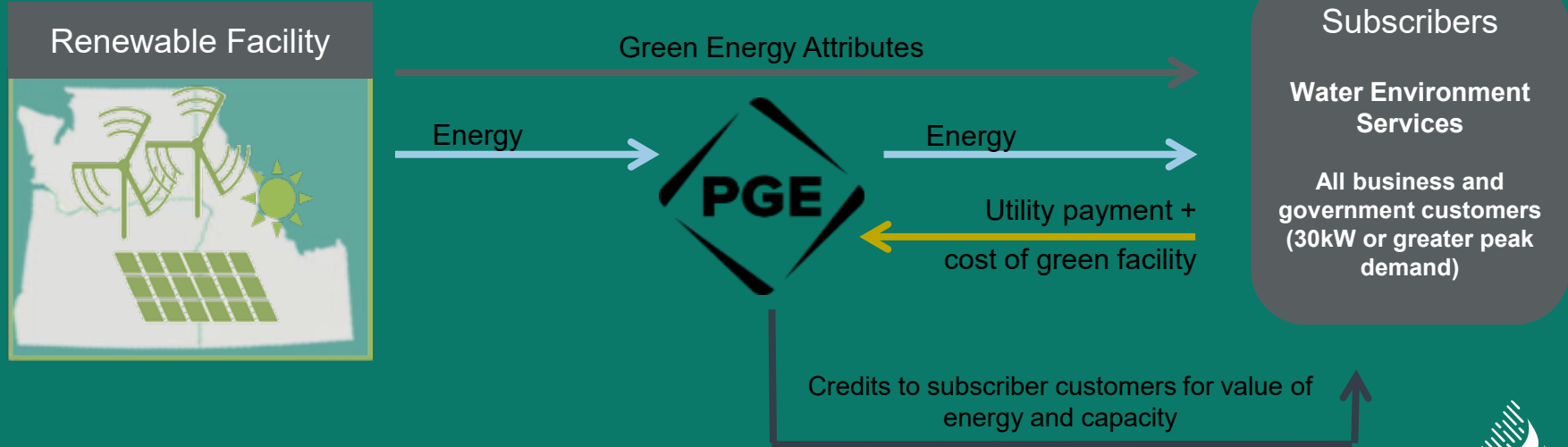
HOW DO WE DEFINE SUCCESS FOR RENEWABLE GOALS?



Increased impact on sustainability and green badging



GREEN FUTURE IMPACT STRUCTURE: HOW IT WORKS



What is a Renewable Energy Certificate?

- A Renewable Energy Certificate (REC) is created when one Megawatt hour of renewable energy is created and put on the electric grid. It represents all the environmental, economic and social benefits associated with the generation of electricity from renewable energy sources. Certificates are used by utilities to track which customers receive green power.

Renewable Portfolio Standard

- Renewable Portfolio Standard (RPS)
 - State law (SB1547) mandates certain % of basic mix electricity comes from renewables
 - Includes Wind, Solar, Geothermal, Biomass, Low Impact Hydro
- Included in rates
- Renewable energy options provide multiple opportunities for WES to go above & beyond RPS

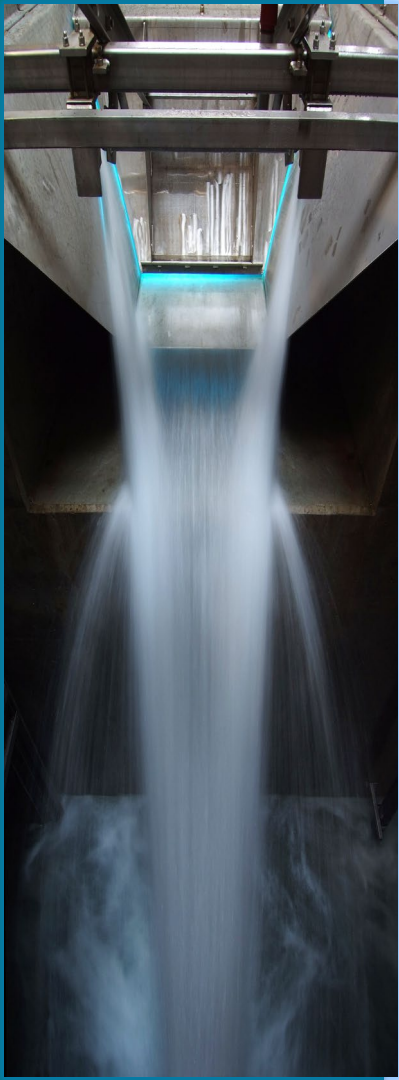
Oregon RPS Schedule (% of basic mix served by renewables)	
2019	15%
2020	20%
2025	27%
2030	35%
2035	45%
2040	50%



C&I Clean Wind

- Currently \$3/MWh
 - Market-based, not fixed
- Renewable Energy Credits (RECs)
- Green-e Certified
- 25% sourced locally, 75% nationally
- 30 day termination
- Approximately \$42,000 per year based on 2018 WES usage

*You do not have to buy Clean Wind to continue to receive your current electricity service from PGE.



Oregon Based RECs



- Approximately \$5-\$6/MWh
 - Market-based, floats
- 100% local
- Mix of renewable resources
- Approximately \$70,000-90,000 based on 2018 WES usage



Green Future Impact

- Fixed price premium (closed):
 - \$1.00/MWh for 15yr term (\$14,000/year based on 2018 usage)
 - \$1.50/MWh for 10yr term (\$21,000/year based on 2018 usage)
- Bundled RECs and Energy, Green-e
- Fixed price
- 100% local
- Wind or Solar facility located in Oregon
- Long term commitment
- Unknown pricing for future offering at this time



Green Future Impact

Why choose Green Future Impact?

- Local: Supports renewable development in the Pacific Northwest
- Maximum Impacts: Helps create a brand new renewable facility
- Predictable: Fixed, leveled pricing
- First round sold out in 90 seconds

Example based on 2018 Usage – 14,000 MWh/year

Example (15 year Option)	2020	2021*-2024	2025-2029	2030-2034	2035-2036
Basic Mix Renewables (RPS)	20%	20%	27%	35%	45%
Green Future	0%	55%	55%	55%	55%
Clean Wind	0.00%	25.00%	18.00%	10.00%	0.00%
% Renewable	20%	100%	100%	100%	100%

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A scenic landscape photograph featuring a large, snow-capped mountain peak in the background, reflected in a calm lake. The foreground is dominated by large, dark rocks and dense evergreen forests on both sides. The sky is filled with soft, colorful clouds, suggesting a sunrise or sunset. The overall mood is serene and majestic.

Questions?