

## Energy and Climate Change



As an EPA Green Power Partner, the City of Lake Oswego encourages its citizens and businesses to invest in energy efficiency, renewable energy, and understand what resources are available to help us lead more efficient and affordable lives.

### Energy Efficiency and Conservation

Energy efficiency and conservation provide the best opportunity to reduce our dependence on fossil fuels and reduce our GHG emissions. Learn more [here](#).

Water conservation is closely related to energy conservation. More than half the electricity used by the City for its operations is to pump, treat, and move drinking water. Learn more about the [City's water conservation program](#), including free technical assistance, rebates, and incentives.

### Renewable Energy for the City

The City of Lake Oswego recently agreed to purchase 100% Clean Wind energy from PGE for all of its Schedule 83 accounts (largest consumers of electricity). Purchasing clean wind renewable energy credits (RECs) for the City demonstrates a commitment to building the Northwest's renewable energy sector, creating jobs, and a clean economy. The City of Lake Oswego now joins the City of Beaverton and the City of Milwaukie in purchasing Clean Wind at the Platinum level. Hillsboro, Gresham, and Wilsonville are all Gold level purchasers.

Based on current electricity usage, the City will reduce its CO<sub>2</sub> emissions by 8,945,302 lbs annually. That is equivalent to planting 1,065 trees or not driving 9,982,036 miles. As the City continues to invest in energy efficient technologies, such as LED lights and solar arrays, the amount that the City will need to spend on purchasing Clean Wind will decrease over time.

As a result of this purchase, the City is now an EPA Green Power Partner! We are working towards becoming an EPA Green Power Community, joining a network of cities across the country whose purchase of renewable energy is keeping tons of CO<sub>2</sub> out of our atmosphere. Please join us in purchasing renewable energy from Portland General Electric and create a healthy Lake Oswego for future generations!

### Some FAQs about the City Clean Wind Purchase:

#### **1. How much does this cost the City?**

The estimated annual cost to purchase Clean Wind from PGE is \$25,100/year. As the City continues to invest in energy efficient technologies and produce renewable energy onsite at new facilities, the amount that we will spend on Clean Wind will decrease as our energy usage decreases. The \$25,100/year is approximately 4.2% of what was spent on electricity **for the accounts that are eligible to participate in the Clean Wind program.**

#### **2. I'm a little confused about the 100% number. Can you explain?**

Federal regulations determine what type of electricity accounts are eligible to purchase renewable energy credits. In the City of Lake Oswego, we have many accounts- each traffic signal is its own PGE account! These little ones are not eligible to participate. The City purchased Clean Wind for what are called Schedule 83 accounts (Large Nonresidential Standard Service (31-200kW)), which are our largest accounts. These account for over 60% of the energy used by the City. By buying Clean Wind for 100% of these accounts, the City of Lake Oswego is a Platinum level supporter of Clean Wind, along with the City of Beaverton, City of Milwaukie, Burgerville, Dave's Killer Bread, EasyStreet Online Services, Organically Grown Company, Portland Timbers, and Wieden + Kennedy.

### **3. How do I know that this purchase is actually buying wind power? Does this turn on the turbines in The Gorge? What exactly are these "Renewable Energy Credits" and do they do anything?**

There is a lot of confusion about Renewable Energy Credits, and why we pay extra for renewable energy. The Oregon Renewable Energy Act requires that electricity providers include a certain percentage of renewables (solar, wind, biomass, geothermal) in their portfolio that comply with the Oregon Renewable Portfolio Standard. However, at the same time, electricity providers must also provide the lowest cost power to consumers. Thus, if a consumer wants to purchase renewable energy, they must indicate that this a choice they are making, and acknowledge that there is an additional cost as renewables are not yet commonplace enough to be the cheapest form of energy. However, you as a consumer when you choose that source of energy, support the growth of the renewable power industry by increasing demand.

This brings us to renewable energy credits (RECs), which is what you are purchasing when you sign up for Green Source or Clean Wind. RECs are certificates that represent the generation of one megawatt-hour (MWh) of electricity from a single source of energy. Each REC represents the following, and can only be used once:

- The generation source (Wind, Solar, Geothermal, etc)
- Location of the generation (Wind Farm, for example)
- Year of generation
- The emissions and characteristics of the generator.

When you purchase a REC, you are purchasing what are called the "environmental attributes" of the generation. You do not own that particular wind mill nor the energy it provides. The energy it provides is fed directly into the electricity grid. However, you as a consumer by choosing that source of energy, own the emissions from its generation and your choice to buy wind, for example, dictates to the power company that they need to purchase that amount of energy from that particular source. Thus, the amount of renewable energy being fed into the grid increases over time.

Here in the Pacific Northwest, that means when you purchase RECs through signing up for a green source program, PGE or PacificPower, can purchase wind, solar, geothermal, etc from generators outside of their usual supply. This in turn boosts the renewable energy economy, creating jobs, allowing providers to meet renewable targets, create clean air and healthy communities.

It is important to note that purchasing RECs is always voluntary. Your energy company must supply you with safe, reliable energy regardless of what is in their mix. And they must do this at the lowest rate that they can. Thus, purchasing renewables is federally mandated to be **voluntary**.

### **4. Ok, so who is overseeing this program? And how do I know that the RECs are only being sold once?**

After a REC is purchased, the REC is "retired" on behalf of the purchaser. The RECs purchased from PGE are Green-e certified. This program is the nation's leading independent certification and verification program for renewable energy. It is administered by the Center for Resource Solutions. Green-e certified RECs are verified to be:

- from new projects built for the voluntary market.
- from providers who are reviewed twice a year to ensure customers are getting the certified energy that they purchase.
- not double counted. RECs sold to a consumer do not count towards a state's renewable energy goal. The

## Energy and Climate Change

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attributes must only go to the individual consumer purchasing it.

Federal policy dictates how the REC market operates. The EPA, Department of Energy, National Renewable Energy Laboratory, World Resources Institute, and Center for Resource Solutions have all worked together to develop guidelines and policies for RECs. The majority of research indicates that the REC market is the most trusted and effective way to boost demand for renewable energy and integrate it into our existing grid. If you are interested in learning more, here are some useful resources:

- [EPA Guide to Purchasing Green Power](#)
- [Renewable Energy Credits \(EPA\)](#)
- [Center for Resource Solutions Green-e program](#)
- [What is a Renewable Energy Certificate? \(YouTube\)](#)

### Climate Change and Greenhouse Gas Emissions

A major concern to the Lake Oswego community and beyond is a changing climate due to increased greenhouse gas emissions (GHG) from human activity. [Learn more](#) about climate change, Lake Oswego's GHG emissions, and actions we can take.

Find additional climate change resources [here](#).

### Electric Vehicle Charging Stations

The City has installed electric vehicle charging stations in downtown Lake Oswego as part of two state-wide electric vehicle (EV) charging station infrastructure projects. Learn more about the projects [here](#).

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