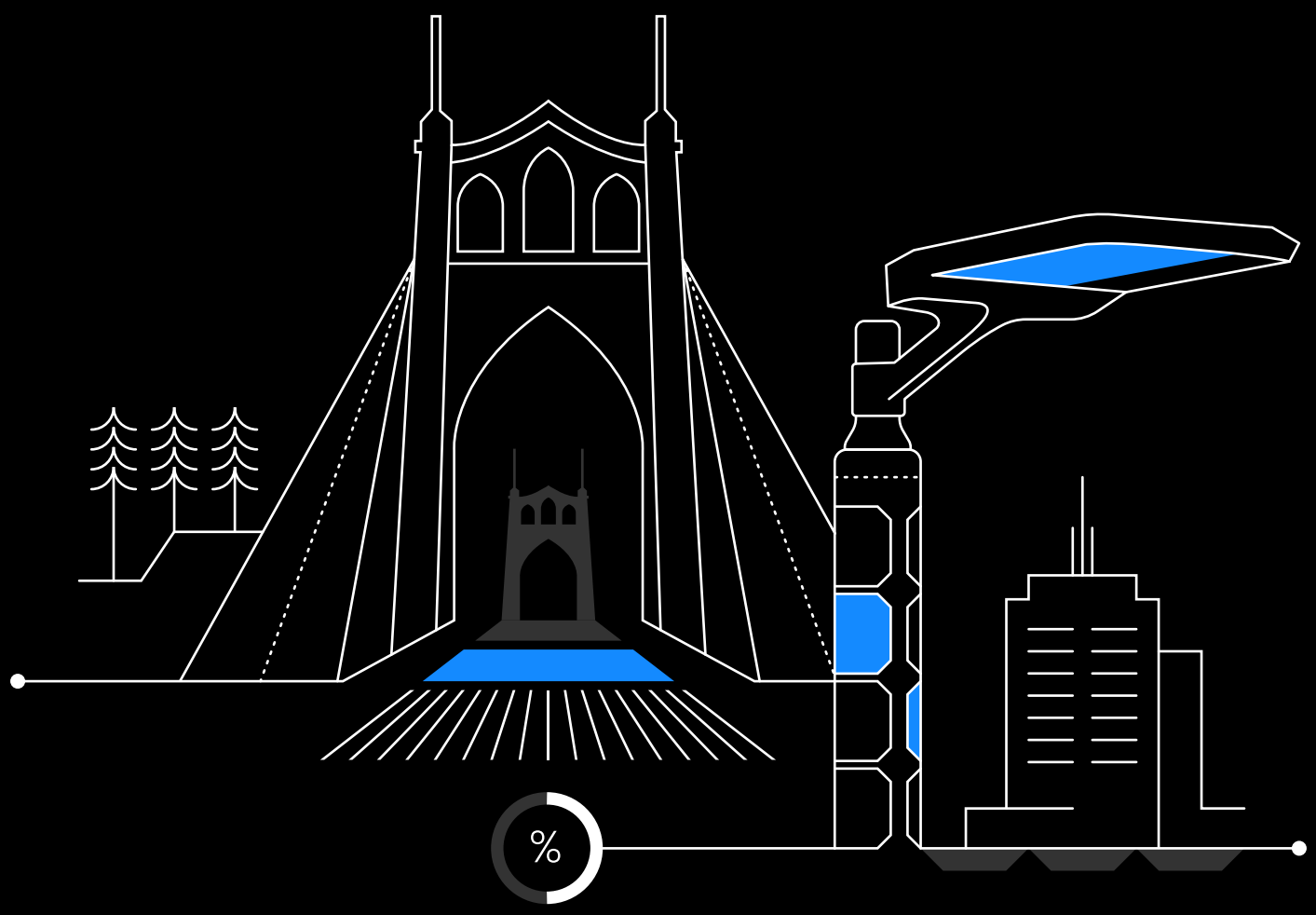
iLamp

Oregon.iLamp.com



iLamp Roadmap for Oregon

This document covers information required to build a road map to commercial viability for the iLamp territorial license for Oregon.

iLamp

Oregon Population
4.246 Million

GDP
$224.43 Billion

Oregon Department of Transport Budget
$5.1 Billion

Street lighting is the single largest source of carbon emissions from local governments, typically accounting for 30-60% of their total emissions.

As Oregon state lawmakers adopt ambitious climate goals, such as House Bill 2021 which requires utilities to eliminate their greenhouse gas emissions associated with electricity they provide by 100% by 2040, the state is faced with the challenge of transitioning to clean energy while also addressing issues such as wildfires, pollution, power outages, lack of transmission infrastructure and a lack of a unified west-wide transmission system operator.

Exclusive License for iLamp in Oregon

Oregon has a goal to decrease carbon emissions and shift towards renewable energy. However, the state also has an aging infrastructure, with grid infrastructure, streetlights and traffic signals in need of upgrading. By replacing inefficient streetlights with modern, technology-packed LED streetlights, iLamp can not only improve energy efficiency, but also generate revenue through the monetization of data, media and excess energy produced.

iLamp's modular design allows for easy maintenance and scalability including the integration of other renewable energy technologies such as enhanced turbine, solar and generator, further increasing the potential for energy and revenue generation, making it a cost-effective solution for cities looking to upgrade their streetlights.

Replacing aging, inefficient streetlights with iLamp creates local jobs in various areas including manufacture, assembly, installation, maintenance, and management of the streetlamps and microgrid systems. iLamps use of local labor and materials in the construction and maintenance of microgrids stimulates economic growth in the surrounding communities.

The creation of microgrids also provides additional revenue streams for utilities and municipalities, which can be used to create jobs and support local economic development.

iLamp.com
ILOCX.com/iLamp

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ConFlowPower.com
Batteryware.com
PowerasaService.com
Droneready.com
Investinbatteries.com
ILOcasestudy.com

> *Creativity is the power to correct the seemingly unconnected.* - Nikola Tesla

iLamp presents a unique opportunity for Oregon to improve energy efficiency, generate revenue, and promote sustainability, all while modernizing the state's infrastructure. It is a perfect solution for addressing the state's energy, public safety, and job creation concerns.

Deal Breakdown

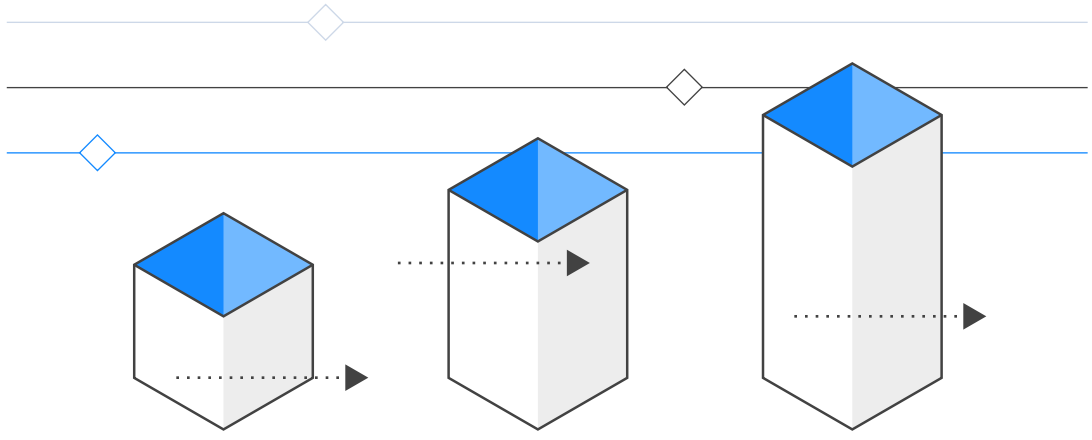
Steps to enhancing value and recurring revenue

1. Reserve the territory by purchasing 10,000 Class II units of iLamp (cost $100,000)
2. Purchase exclusive license in Oregon for $5,000,000, pay $600,000 on signing and the remainder is broken into $1,000,000 in equity in exchange for 1% of iLamp Oregon LLC and $3,300,000 financing from Cede Capital. You will get an exclusive license for Oregon, a pilot pole installed, a localized iLamp.com website (see example here oregon.ilamp.com), a listing on ILOCX for your local fundraising and promotion (example oregon.ilamp.com)
3. A more detailed roadmap with all supporting documentation and training.
4. The ability to sell sub-licences within Oregon subject to approval from Cede Capital.
5. You pay iLamp HQ 5% of all revenue and 20% of the PaaS revenue you generate.
6. Repeat what CPG has done in California and now in 9 other States in the USA: agree to a pilot installation for iLamp. Get a contract for installation and gain 20% of the PaaS revenue from each iLamp year- on-year. 10% of the market in Oregon would yield approx $300 million in iLamp sales over 10 years and generate $2.68 million in annual recurring revenue based on 20% of PaaS revenue not including all other sources all other revenue sources, camera, sensors, wifi, 5G etc estimated at $400 per pole per annum. (based on an estimate at 10 % of the 200,000 poles in Oregon)

Three steps to faster returns

1. Buy $1 million of iLamp license units at current price, and move to step 3 above. The result will be a double in the value of your units before your local license is listed.
2. List iLamp Oregon on ILOCX and gain local support.
3. On signing we commit to supplying a sample iLamp to install in a strategic location in Oregon and all other benefits. The $1m iLamp license units purchase counts against the note as paid which has a large and positive impact on your opening balance sheet in iLamp Oregon. (see at the end of the document)

Stages



1. Reservation

Reserve the territory on ILOCX using the account of the potential licensee: https://app.ilocx.com/territory.

- Once this phase is complete the potential licensee has 12 months to trigger the territorial license or lose the option.
- If you have purchased 100,000 ILO units in iLamp in the alternative offer then all these payments are considered paid.

2. Get Started

Once triggered the deposit needs to be paid in the case of Oregon this totals $600,000 this covers all costs to install a pilot scheme in the location chosen.

- This will include delivery and installation of an autonomous iLamp as a demonstration to land sales and mass installations.
- This also covers:
  - The costs to list iLamp Oregon on the ILOCX for all upfront and first year listing fees.
  - This building and delivery of a website for Oregon.
  - All media and images, all data and point of sale aids, email addresses, and this detailed report covering competition, USP's, market size, list of potential partners, HQ assistance for news and localized promotion of iLamp in the territory.

3. The Details

Once the option fee and deposit are paid a local legal entity needs to be formed to hold the license. We will update the roadmap document on a continuous basis to establish local manufacturers, register as a local autonomous utility and expand commercial contracts and partners.

The Oregon Opportunity

Oregon has passed a clean energy bill that requires its two largest utilities, PacificCorp and Portland General Electric, to deliver 100% clean electricity to customers by 2040 and prohibits new or expanded natural gas-fired power plants in the state.

The new law makes Oregon the eighth state to commit to 100% clean electricity, and along with New York, it now has the most ambitious timetable in the nation to get there. However, utilities have not yet revealed how they will achieve this goal, with PacifiCorp Senior Vice President Scott Bolton stating that "we don't have a plan that shows we can get there."

Making "100 x 40" a reality will require major advances in technology, structural changes in energy markets and fundamental shifts in the way transmission is coordinated and sold.

HB 2021 allows "pauses" in meeting targets if the pace would cause reliability problems or become an economic hardship for ratepayers. And while the law prohibits new or expanded gas plants, it doesn't require utilities to shut down their existing plants. While advocates have trumpeted the economic benefits and jobs that will flow from the bill, developers and other experts fear the bulk of the renewable energy projects that result will be built out of state.

In 2019, gas and coal-fired plants still furnished nearly half of Oregon's electricity supply. Replacing that capacity will require a vast buildout of wind and solar capacity. However, experts say much of that development is likely to take place out of state due to the lack of reliable wind and solar resources in Oregon.

A recent study of how to decarbonize Oregon's electricity grid sponsored by a coalition of renewable energy advocates suggested the potential for as much as 20,000 megawatts of offshore wind projects in Oregon, about half of the peak demand that California's grid operator saw during a heat wave in June 2021.

While the bill is considered ambitious, it will be a major challenge for utilities to achieve the 100% clean energy goal by 2040. The bill includes a number of provisions to increase community involvement and funding for renewable energy projects, but it remains to be seen how the state will address the significant technological and economic challenges that lie ahead.

Vision Zero goal to eliminate traffic deaths and serious injuries in Portland

Through the Vision Zero program, the cities of Portland and Eugene and their partners are working to eliminate traffic deaths and serious injuries on our streets.

Streetlights make it easier for people to avoid crashes and can reduce the incidence of crashes at specific locations. For example, adding lighting at intersections can reduce crashes by as much as 42 percent. Better street lighting is critical for Oregon to meet its Vision Zero goals to eliminate traffic deaths and serious injuries.

The City of Portland alone owns more than 100,000 streetlights, but still lacks adequate streetlighting, particularly east of Interstate 205.

Portland has many types of street users and street characteristics that support different lighting levels. The Portland Bureau of Transportation (PBOT's) Signals, Streetlighting, & ITS Division maintains and reviews lighting modifications in the City's streets.

In 1990, PBOT implemented an infill policy for residential streets. This policy set maximum spacing standards for practical lighting infill of local streets that previous policies did not cover. As part of this policy, the City developed a standard detail identifying the different light pole layout configurations.

The street lighting guidelines provide illuminance lighting values for different street classifications. Minimum lighting levels rise with street functional classification. The guidelines suggest the brightest lighting for Major Traffic/Major Transit/Traffic Access streets, and lower lighting levels for District Collector and Neighborhood Collector roadways. Local Service roadways have the lowest lighting levels. Wider arterial streets are more likely to require two-sided lighting or other lighting solutions to meet uniformity guidelines.

Higher lighting levels are recommended at intersections and mid-block pedestrian crossings, and sometimes supplemental pedestrian scale lighting is used if it is determined that overhead lighting is inadequate (see Figure 3). PBOT typically mounts pedestrian scale lighting at 14 feet compared to overhead "cobra-head" lighting that is mounted at 30-40 feet.

Street level view of a four lane street with bike lanes and a center median island. There is a combination of overhead street lighting and pedestrian scale lighting.

Portland has some special lighting districts. City code notes that "all street lights shall be a standard overhead fixture except in areas where it is determined by the Commissioner In Charge of the Bureau of Transportation that specialty lighting would substantially enhance a unique characteristic of the district."

As part of the Outer Division Safety Project, the City is planning to supplement existing lighting on outer SE Division (82nd to 174th) that will improve the uniformity of lighting in this corridor.

PBOT performs an equity analysis using its Equity Matrix to inform lighting improvements. The matrix considers the demographic variables of race, income and Limited English Proficiency within Census Block groups in Portland.

The City's development code requires privately or publicly funded projects with streetlights corresponding to City lighting standards. Design, plans and specifications for streetlights to be installed or altered shall be first approved by PBOT. The full cost of providing the street lighting improvements shall be paid by the permittee or funding source used for the street construction costs.

Engineering staff in PBOT's Signals, Street Lighting and ITS division conduct monthly "night drives" to evaluate lighting needs and identify street light outages. PBOT also coordinates with City partners to prune overhanging foliage when it seriously obstructs the light intended for the pavement and sidewalk.

LED Pilot Program

The Oregon Department of Transportation (ODOT) has initiated a streetlight conversion pilot program, which will involve replacing more than 8,000 high-pressure sodium lighting fixtures with LEDs. The $18.6 million project is funded by an energy savings performance contract (ESPC) that will result in an estimated equivalent of 3,500 metric tons of carbon emissions saved annually.

The 8,000 streetlights to be replaced during this pilot are along highways in Region 1 of the ODOT system, which includes the Clackamas, Hood River, Multnomah, and eastern Washington counties.

The new LED streetlights use 50% less energy than traditional highway lighting fixtures and are dark-sky friendly with a color temperature of 3,000 to 4,000 Kelvin. The longer lifecycle for each LED fixture — which is roughly 15 to 20 years compared with a two- to four-year lifespan of traditional high-pressure lights — means that there will be less disruption to the public due to traffic control for replacement, according to Ameresco.

ODOT selected Ameresco as its project partner. Ameresco officially began work on this project in May 2020. It expects to complete this project by summer 2021.

A 2019 report stated that the global LED lighting market reached $26.09 billion in 2016 and is likely to cross $54.28 billion by the end of 2022, growing at a CAGR of almost 13% from 2017 to 2022. The research noted the advantages provided by LED lights over fluorescent and incandescent lamps as the major factor boosting the growth of the LED lighting market.

Advantages include higher brightness, energy efficiency and longer life span of LED lights. Incessant new product launch by players such as GE and Philips along with other players with innovative tech is drawing the customer all over the world. For example, in August 2017, Kenall rolled out 6-inch modular downlights, which were developed to perform competently for years and are suitable for pharmaceutical processing, tightly sealed and compatible for military installations.

Oregon wide lighting survey

The League of Oregon Cities conducted a survey in 2010 about street and traffic lighting in Oregon. 37% of Oregon's cities participated in the survey, which represents 78% of Oregon's city residents and 55% of all Oregonians. The survey found that most cities use some form of high-intensity discharge lighting (HID), but many cities also use a variety of other lighting technologies. A majority of cities have some form of HID lighting: high-pressure sodium (83%), followed by mercury vapor (46%) and metal halide (26%). 13% of responding cities use LEDs for street lighting, 10% use magnetic induction and 14% use other technology. 56% of responding cities do not own any traffic lights. Among cities that replaced incandescent traffic bulbs with LED, 88% saw a reduction in electricity cost and 85% saw a reduction in maintenance cost.

Streetlight ownership in most of the cities surveyed is divided amongst several entities. Seventy-one percent of cities report owning some or all of their street lights, with 21 percent owning all. Sixty-eight percent of cities have lights owned by utilities, and 7 percent have streetlights owned by other government entities. Twelve percent reported having streetlights that are owned by private parties

The majority of streetlights in responding cities are, at least in part, maintained by the electric utility. As a result, many cities may not have much decision-making power over the type of lighting technology used because the city is not directly handling operations and maintenance. However, more than half of cities report maintaining some portion of the street lights with their own city work crews.

General fund and state highway fund revenues pay for the majority of street lighting operations in Oregon cities. Cities answered this question, “How are your streetlight costs funded?” in two different ways: by city fund (general fund, street fund), and by revenue source (property tax, gas tax, street lighting fee). Given the two different types of responses, these data do not lend themselves to further statistical analysis, but are nonetheless useful to understand the range of situations in Oregon cities.

The survey states that given the economic downturn, cities across the country are looking for ways to recover costs related to energy and infrastructure. In Oregon, six cities (7%) responded by reducing street lighting to reduce electricity costs. The City of Myrtle Creek, for example, chose to turn out non-essential lights, such as ones in the middle of a block or cul-de-sac while preserving all lights that have an impact on safety, to save money. The City of Portland is not replacing some lights when they stop

working and is reducing the wattage used in others to save money. The City of Bandon has another way of addressing electricity costs. In mid-block locations of new developments, street lights will only be installed upon unanimous agreement of affected residents, with all costs paid by the individual or neighborhood requesting the installation. The vast majority of Oregon cities (88%) charge developers for the costs associated with lighting newly developed areas in the city. Most cities recover some infrastructure costs caused by development in the form of fees or system development charges.

The warning signs for Oregon

Oregon has been experiencing increasingly large fire seasons over the last few decades, with the preceding 2020 wildfire season being one of the most destructive in the state's history, in 2021 more than 1000 fires burnt more than 518,303 acres across the state, causing severe air pollution, power outages, loss of land, property, injury and death. Early detection is part of the first line of defense against wildfires.

At the end of July 2021, Governor Kate Brown signed a bill to invest $220 million in wildfire prevention, preparedness, and response.

Oregon's air pollution problem is exacerbated by easterly winds that bring smoke and pollution from out of state and an aged in-state waste incineration burns an unlimited amount of in and out of state industrial waste, and up to 18,000 tons of out of state medical waste each year.

Oregon's air is so hazardous it's breaking records - September 2022
Four Oregon cities among nation's worst for air pollution

Fine particle air pollution originating from human activity was responsible for an estimated 107,000 premature deaths in the United States — at a cost of $886 billion to society — in 2011. The U.S. Office of Management and Budget found that regulations issued by the Environmental Protection Agency (EPA) limiting air pollution generated between $157 billion and $777 billion (in 2010 dollars) in benefits to the U.S. economy, mainly by reducing the health risks of exposure to fine particulate air pollution.

In 2022, Oregon received over $1 Million in EPA Funding to be spent on community air monitoring and there are various initiatives to increase air quality monitoring.

In December 2022 the Portland area was hit with high winds causing outages to more than 20,000 homes in Multnomah County, according to Portland General Electric's outage map. Nearby in Clackamas County, about 27,000 people were in the dark Tuesday afternoon and another 29,000 were without power in Washington County. About 25,000 customers outside the Portland region were also without power around noon Tuesday, according to Pacific Power.

Potential partners

Oregon's electric IOUs provide service to approximately 74 percent of customers in the state. Most of that service is provided by the two major electric IOUs, PGE and Pacific Power. PGE serves 780,000 residential customers while Pacific Power serves 517,000 residential customers. Idaho Power's residential customers in Oregon number 13,500. The rest of Oregon is served by 37 consumer owned electric utilities (COUs), which are cooperatives, people's and municipal utilities.

West Oregon Electric Co-Op

https://www.westoregon.org/

West Oregon Electric Cooperative was formed to meet the needs of the people in our communities and we continue to build new lines to growing membership.

Pacific Power Oregon

https://www.pacificorp.com

Our long-term plan accelerates a bold energy future with low-cost, reliable and sustainable power for our customers and communities.

Portland General

https://portlandgeneral.com

Portland General Electric is a Fortune 1000 public utility based in Portland, Oregon. It distributes electricity to customers in parts of Multnomah, Clackamas, Marion, Yamhill, Washington, and Polk counties - 44% of the inhabitants of Oregon.

Specht Development, Inc.

https://spechtprop.com/

503-646-2202

Specht Development, Inc. and Specht Properties, Inc. have been a premier developer and property manager of commercial real estate in Oregon and SW Washington for over three decades. Specht and its affiliated entities have developed or managed the development of 12 million square feet of commercial space with a cost basis of over $1 billion, building value for our clients and shareholders at every step in the process.

Pacific NW Properties

https://pnwprop.com/

503-626-3500

Founded in 1990, Pacific NW Properties owns and manages over 3.6 million square feet of business parks, industrial buildings, and suburban office assets in the Portland/Vancouver Metro Area. Family owned and locally headquartered in Beaverton, Oregon, we've become one of the region's largest commercial real estate firms by putting people first, striving for the win/win, doing what we say we're going to do, operating with kindness, and ultimately respecting and appreciating our tenants, service providers, broker partners, and employees by putting them in a position to thrive and prosper. We have a genuinely great time helping people and their businesses. Contact us today and let us help you!

Cairn Pacific

https://cairnpacific.com/

503 345-6733

Tom DiChiara, Principal – tom@cairnpacific.com

https://phkinc.com/

Cairn Pacific is a full service development company with experience ranging from neighborhood infill projects to large downtown high-rises. We build commercial, retail, and office space, with a special focus on multifamily mixed-use projects. We are committed to thoughtful and enduring design, development, and investment.

Further potential contacts

E-Solutions Oregon

16070 S. Rifle Way, Oregon City, OR 97045, United States

503-476-3243

https://esolutions-or.com

Blue Raven Solar

5319 SW Westgate Dr Ste 160, Portland, OR 97221, United States

800-377-4480

https://blueravensolar.com

E2 Solar

20784 NE High Desert Ln, Bend, OR 97701, United States

541-388-1151

https://e2solar.com/

Smart Solar Energy Salem Oregon

503-342-0315

www.smartsolarenergyco.com/

Power Northwest

2711 NW St Helens Rd, Portland, OR 97210, United States

503-208-4357

http://www.powernw.com/

Sunshine Solar

541-295-8500

1489 Rogue River Hwy, Grants Pass, OR 97527, United States

https://sunshinesolarinc.com/

Utility Contacts

Blachly-Lane Electric Cooperative
541-688-8711

Central Electric Cooperative
541-548-2144

Clearwater Power Company
541-688-8711

Columbia Basin Cooperative
541-676-9146

Columbia Power Cooperative
541-934-2311

Columbia Rural Electric (WA)
509-382-2578

Consumers Power
541-929-3124

Coos-Curry Electric Cooperative, Inc.
541-332-3931

Douglas Electric Cooperative
541-673-6616

Harney Electric Cooperative
541-573-2061

Hood River Electric Cooperative
541-354-1233

Lane Electric Cooperative
541-484-1151

Midstate Electric Cooperative, Inc.
800-722-7219

Oregon Trail Electric Cooperative
541-523-3616

Salem Electric
503-362-3601

Surprise Valley Electric Corporation
541-947-2368

Umatilla Electric Cooperative
800-452-2273

Umpqua Indian Utility Co-op
541-677-5569

Wasco Electric Cooperative
541-296-5051

West Oregon Electric Cooperative, Inc.
503-429-3021

Central Lincoln PUD
877-265-3211

Clatskanie PUD
503-728-2163

Columbia River PUD
503-397-1844

Emerald PUD
541-746-1583

Northern Wasco PUD
541-296-2226

Tillamook PUD
503-842-2535

Canby Utility Board
503-266-4021

City of Ashland Electric Department
541-488-5357

City of Bandon
541-347-2437 x233

City of Cascade Locks
541-374-8484

City of Drain
541-836-2417

City of Forest Grove Light & Power
503-992-3250

City of Monmouth
503-838-3526

Eugene Water & Electric Board
541-484-2411

Hermiston Energy Services
541-289-2000

McMinnville Water & Light
503-472-6158

Milton-Freewater City Light & Power
541-938-5531

Springfield Utility Board
541-746-8451

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