



WALLOWA
COUNTY

COMMUNITY ENERGY STRATEGIC PLAN



MINI GLOSSARY



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BIOMASS

Energy resources derived from organic matter. These include wood, agricultural waste and other living-cell material that can be burned to produce heat energy. They also include algae, sewage and other organic substances that may be used to make energy through chemical processes.

BLACKOUT

A power loss affecting many electricity consumers over a large geographical area for a significant period of time.

**BRITISH
THERMAL
UNIT (Btu)**

The standard measure of heat energy. It takes one Btu to raise the temperature of one pound of water by one degree Fahrenheit at sea level. For example, it takes about 2,000 Btu to make a pot of coffee.

**BUILDING
INSULATION**

Insulation can be defined as any type of material that serves to provide a barrier within the walls, ceilings, and floors of a home and helps regulate temperature and noise. Insulation in your home provides resistance to heat flow and lowers your heating and cooling costs.

CAPACITY

The amount of electric power for which a generating unit, generating station, or other electrical apparatus is rated either by the user or manufacturer.

**CESP
LEADERSHIP
TEAM**

The leadership team is an internal group of community members who are responsible in guiding a scope of work to co-create a replicable community-led energy planning process by developing a Community Energy Strategic Plan (CESP) for Wallowa County that includes deep public education and public participation.

**CESP
STAKEHOLDERS**

Residents, environmentalists, businesses and government representatives that have an interest or concern about Wallowa County energy.

**CLIMATE
CHANGE**

The term 'climate change' is sometimes used to refer to all forms of climatic inconsistency, but because the Earth's climate is never static, the term is more properly used to imply a significant change from one climatic condition to another. In some cases, 'climate change' has been used synonymously with the term, 'global warming'; scientists however, tend to use the term in the wider sense to also include natural changes in climate.

COMMUNITY ENERGY RESILIENCE

The ability of a community to maintain the energy needs of critical public services during non-routine power disruptions which could be severe and prolonged (WR/ODOE). The Federal Energy Regulatory Commission (FERC) defines resilience as the capacity to anticipate, adapt to, and rapidly recover from disruptive incidents.

COMMUNITY ENERGY STRATEGIC PLAN (CESP)

A long-range dynamic blueprint to focus and guide actions toward creating a defined energy vision. It is a community driven plan that sets goals, creates a comprehensive prioritized list of local opportunities, creates short- and long-term strategies and seeks out funding opportunities to implement these strategies.

COMMUNITY HEALTH

Energy planning that improves the accessibility and affordability of energy conservation, efficiency, and renewability options for households, businesses and public services and to understand and mitigate the disproportionate impacts of energy burdens present in our communities.



**DATA
CENTER**

A data center is a building, a dedicated space within a building, or a group of buildings used to house computer systems and associated components, such as telecommunications and storage systems. It generally includes redundant or backup components and infrastructure for power supply, data communication connections, environmental controls, and various security devices. A large data center is an industrial-scale operation using as much electricity as a small town or county.

**DEPARTMENT
OF ENERGY
(US DOE)**

The federal department established by the Department of Energy Organization Act to consolidate the major federal energy functions into one cabinet-level department that would formulate a comprehensive, balanced national energy policy.

DISTRIBUTION

The delivery of electricity to the retail customer's home or business through low voltage distribution lines.

**DISTRIBUTED
GENERATION**

A distributed generation system involves small amounts of generation located on a utility's distribution system for the purpose of meeting local (substation level) peak loads and/or displacing the need to build additional (or upgrade) local distribution lines.

DUCTLESS HEAT PUMP

A ductless heat pump (or mini-split) efficiently heats and cools by moving heat in or out of your home based on the season and operates without ductwork. An indoor unit is mounted on the wall of a room, with a refrigerant line connecting it to the outdoor unit.

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ECONOMIC VITALITY

To improve the economic well-being and quality of life for a community by creating and retaining jobs that facilitate growth and provide stability.

ELECTRIC GENERATOR

A device that converts heat, chemical or mechanical energy into electricity.

ELECTRIC UTILITY

Any person or state agency with a monopoly franchise (including any municipality), which sells electric energy to end-use customers.

ELECTRIC VEHICLE CHARGING STATION (EVSE)

Infrastructure designed to supply power to EVs.

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**ELECTRIC
VEHICLES
(EV)**

EVs use a battery to store the electric energy that powers the motor. EV batteries are charged by plugging the vehicle into an electric power source.

**ENERGY
CONSERVATION**

The decision and practice of using less energy. Turning off the light when you leave the room, unplugging appliances when they're not in use and walking instead of driving are all examples of energy conservation.

**ENERGY
EFFICIENCY**

Using technology that requires less energy to perform the same function. Energy-saving light bulbs, large household appliances, smart thermostats, modern windows, doors and updated insulation, are all examples of technology that can be energy efficient.

**ENERGY
RESILIENCE
HUB**

Resilience hubs are community centers that can provide reliable energy during widespread power outages. Power is often provided by a combination of renewable energy, typically solar and battery energy storage. They can often include one or more microgrids, which connect independent energy resources with energy users and can be connected and disconnected from a centralized grid as needed during power outages or depending on availability of alternative energy sources like solar.

ENERGY TRUST OF OREGON

A nonprofit organization that provides cash incentives and expertise to people planning energy-saving home upgrades and renewable energy projects. Energy Trust serves customers of PGE, Pacific Power, NW Natural, Cascade Natural Gas and Avista in Oregon and customers of NW Natural in Washington.

F

FEED-IN TARIFF

A renewable energy policy that typically offers a guarantee of payments to project owners for the total amount of renewable electricity they produce; access to the grid; and stable, long-term contracts.

FOSSIL FUEL

Oil, coal, natural gas or their by-products.

FOSSIL FUEL EMISSIONS

Most of the emissions of human-caused greenhouse gases come primarily from burning fossil fuels—coal, natural gas, and oil—for energy use. Economic growth and weather patterns that affect heating and cooling needs are the main factors that drive the amount of energy consumed. Energy prices and government policies can also affect the sources or types of energy consumed.

**GAS
UTILITY**

Any person engaged in, or authorized to engage in, distributing or transporting natural gas, including, but not limited to, any such person who is subject to the regulation of the Public Utilities Commission.

**GENERATING
STATION**

A power plant.

**GREENHOUSE
EFFECT**

The effect produced as greenhouse gases allow incoming solar radiation to pass through the Earth's atmosphere, but prevent most of the outgoing infra-red radiation from the surface and lower atmosphere from escaping into outer space. This process occurs naturally and has kept the Earth's temperature about 59 degrees F warmer than it would otherwise be. Current life on Earth could not be sustained without the natural greenhouse effect. (EPA)

GRID

The electric utility companies' transmission and distribution system that links power plants to customers through high power transmission line service.



**HYBRID
ELECTRIC
VEHICLE
(HEV)**

A vehicle that combines an internal combustion engine with a battery and electric motor. This combination offers the range and refueling capabilities of a conventional vehicle, while providing improved fuel economy and lower emissions.

**HYDROELECTRIC
POWER**

Electricity produced by falling water that turns a turbine generator. Also referred to as HYDRO.

**INDUSTRIAL
BUILDING**

A building or part thereof wherein products or material are fabricated, assembled or processed, such as assembly plants, laboratories, power plants, refineries, gas plants, mills, dairies and factories.

**INTER-
CONNECTION
(Electric utility)**

The linkage of transmission lines between two utilities, enabling power to be moved in either direction. Interconnections allow the utilities to help contain costs while enhancing system reliability.



K

KILOWATT (kW)

One thousand (1,000) watts. A unit of measure of the amount of electricity needed to operate given equipment.

KILOWATT- HOUR (kWh)

The most commonly-used unit of measure telling the amount of electricity consumed over time. It means one kilowatt of electricity supplied for one hour. For example, ten 100w lightbulbs burning for one hour will consume 1 kWh.

L

LED LIGHTBULB

LED stands for light emitting diode. An electrical current passes through a microchip, which illuminates the tiny light sources called LEDs and the result is visible light. LED lighting products produce light up to 90% more efficiently than incandescent light bulbs.

LITHIUM- ION (Li-Ion) BATTERY

A type of rechargeable battery. In the batteries lithium ions move from the negative electrode to the positive electrode during discharge and back when charging. Most plug-in hybrids and all-electric vehicles use lithium-ion batteries.

LOAD

The amount of electric power supplied to meet one or more end user's needs.

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MEGAWATT (MW)

One-thousand kilowatts (1,000 kW) or one million (1,000,000) watts. One megawatt is enough electrical capacity to power a mix of approximately 1000 homes and businesses.

MEGAWATT HOUR (MWh)

One-thousand kilowatt-hours, or an amount of electrical energy that would supply 1,370 typical homes in the Western U.S. for one month. (U.S. DOE EIA, 1997 annual per capita electricity consumption figures).

MICROGRID

A combination of localized electricity generation sources, energy storage devices, and multiple loads that acts as a small electric grid with respect to the main electric grid. The microgrid can operate interconnected or isolated from the main electric grid.

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N

NATIONAL RENEWABLE ENERGY LABORATORY (NREL)

The National Renewable Energy Laboratory (NREL), located in Golden, Colorado, is the United States' primary laboratory for renewable energy and energy efficiency research and development. NREL is the only Federal laboratory dedicated to the research, development, commercialization, and deployment of renewable energy and energy efficiency technologies.

O

OREGON DEPARTMENT OF ENERGY (ODOE)

State agency helps Oregonians make informed decisions and maintain a resilient and affordable energy system.

OREGON PUBLIC UTILITY COMMISSION (OPUC)

The Oregon Public Utility Commission is the chief electric, gas and telephone utility regulatory agency of the government of the U.S. state of Oregon. It sets rates and establishes rules of operation for the state's investor-owned utility companies. With respect to publicly owned utility districts and cooperatives, its authority is limited to safety regulations.

**OUTAGE
(Electric
utility)**

An interruption of electric service that is temporary (minutes or hours) and affects a relatively small area (buildings or city blocks). See BLACKOUT.

P

**Pacific
Power (PAC)**

An electric utility serving the greater Wallowa County region.

**PEAK LOAD OR
PEAK DEMAND**

The electric load that corresponds to a maximum level of electric demand in a specified time period.

**POWER
PURCHASE
AGREEMENT
(PPA)**

An arrangement between two parties, one which generates electricity (the owner) and one which is looking to purchase electricity (the buyer). The buyer purchases the system's electric output for a predetermined period. A PPA allows the buyer to receive stable and often low-cost electricity with no upfront cost, while also enabling the owner of the system to take advantage of tax credits and receive income from the sale of electricity. Most commonly used for renewable energy systems.

PROPANE

A gas that is both present in natural gas and refined from crude oil. It is commonly used as a fuel for rural homes for space and water heating.

R-VALUE

A unit of thermal resistance used for comparing insulating values of different material. It is basically a measure of the effectiveness of insulation in stopping heat flow. The higher the R-value number, a material, the greater its insulating properties and the slower the heat flow through it. The specific value needed to insulate a home depends on climate, type of heating system and other factors.

RELIABILITY

Electric system reliability has two components--adequacy and security. Adequacy is the ability of the electric system to supply the aggregate electrical demand and energy requirements of the customers at all times, taking into account scheduled and unscheduled outages of system facilities. Security is the ability of the electric system to withstand sudden disturbances such as electric short circuits or unanticipated loss of system facilities.

**RENEWABLE
ENERGY**

Resources that constantly renew themselves or that are regarded as practically inexhaustible. These include solar, wind, geothermal, hydro and wood. Although particular geothermal formations can be depleted, the natural heat in the earth is a virtually inexhaustible reserve of potential energy.

RESIDENTIAL BUILDING

Buildings constructed as dwellings. These are where people primarily sleep and do other domestic activities. Examples include apartment blocks and houses.

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SOLAR ENERGY

Radiant energy emitted by the sun. A renewable energy that can be used to heat, cool, and light homes and businesses.

SOLAR POWER

Electricity generated from solar radiation.

SUBSTATION

A facility that steps up or steps down the voltage in utility power lines. Voltage is stepped up where power is sent through long-distance transmission lines. It is stepped down where the power is to enter local distribution lines.

SUSTAINABILITY

Preserving and enhancing people, environment, and prosperity by meeting current needs and improving quality of life without compromising future generations' abilities to meet their needs.



TAX CREDITS

Credits established by the federal and state government to assist the development of the alternative energy industry typically offered as incentives.

TARIFF

A document, approved by the responsible regulatory agency, listing the terms and conditions, including a schedule of prices, under which utility services will be provided.

TRANSMISSION

Transporting bulk power over long distances.

**TURBINE
GENERATOR**

A device that uses steam, heated gases, water flow or wind to cause spinning motion that activates electromagnetic forces and generates electricity.





Wallowa Resources Community Energy Program (WRCEP)

A program within Wallowa Resources (a non-profit organization) focused on creating opportunities to enhance the community and environment through energy related projects.

WATT

A unit of measure of electric power at a point in time, as capacity or demand. One watt of power maintained over time is equal to one joule per second. Some Christmas tree lights use one watt. The Watt is named after Scottish inventor James Watt and is capitalized when shortened to w and used with other abbreviations, as in kWh.

WORKFORCE HOUSING

Workforce housing, sometimes called “middle-income” housing, is generally understood to mean affordable housing for household types who earn too much to qualify for “low-income” housing assistance yet cannot afford typical market rates. Workforce housing can refer to any form of housing, including ownership of single or multi-family homes, as well as occupation of rental units.





WALLOWA
COUNTY

CESP

ENERGY TOUCHES EVERYTHING

*LEARN HOW YOU CAN PARTICIPATE IN SMALL
WORK GROUPS, INFO SESSIONS, SPECIAL EVENTS
AND MORE!*

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OR GO TO:



communityenergyprogram.org/energy-plan