Technical & Financial Assistance for Oregon Rural Farms and Small Businesses

Bonneville Power Administration Energy Efficiency Incentives

Program Description: BPA allocates ratepayer funds to utilities in its Pacific Northwest service territory that purchase public power to be used for energy efficiency programs for utility customers. Participating utilities include electric cooperatives, people's utility districts and municipal utilities, which are collectively referred to as "consumer-owned utilities." Utilities receive an allocation for each rate period that may be awarded to agricultural projects, but there is not a specific amount designated for the agricultural sector. Some utilities run their own energy efficiency programs, while others join with other utilities in a "pool" to run a joint program or contract with a third-party entity to run their program.

The Regional Technical Forum, a technical advisory committee to the Northwest Power and Conservation Council, maintains lists for each economic sector of "UES" or unit energy savings measures, for which energy savings are estimated on a per-unit basis, such as savings per light bulb. UES measures approved by the RTF, such as variable frequency drives, irrigation hardware, and thermostatic outlet controllers receive a fixed reimbursement per unit, while agricultural construction projects that incorporate efficient HVAC or other features can receive payments that depend on the life of the project and the energy savings.

Agricultural energy efficiency measures in Oregon funded by Bonneville Power Administration in 2019 accounted for just under one average megawatt in first year energy savings, with irrigation measures making up the majority of savings.[1]

Eligible Uses of Program Funds: UES (Per unit reimbursement): freeze-resistant stock water tanks, thermostatically controlled outlets and stock tanks, transformer de-energization, irrigation system conversions, irrigation sprinkler and hardware replacement, irrigation pump testing, variable frequency drives and agricultural pumps.

Custom projects include new agricultural construction and other energy saving projects.

Annual spending by Oregon utilities in BPA service territory: $1,894,837 (2019)

Program website: https://www.bpa.gov/EE/Sectors/agriculture/Pages/default.aspx

Energy Trust of Oregon Agricultural Energy Efficiency Measures

Program Description: Energy Trust of Oregon incentivizes energy efficiency savings in the agricultural sector using funds from the Public Purpose Charge paid by customers of investor-owned utilities, including Portland General Electric, Pacific Power, NW Natural, Cascade Natural Gas, and Avista. Energy Trust maintains a list of eligible measures, with some measures receiving rebates on a prescriptive per unit or per linear or square foot basis, and others eligible for rebate amounts based upon savings that the measure is expected to achieve through calculated savings.

Eligible Uses of Program Funds: Rebates based on unit or linear/square foot measurement: irrigation sprinklers, nozzles and gaskets; Low Energy Precision Application (LEPA) and Low Elevation Spray Application (LESA); greenhouse improvements, such as covers, controllers, condensing unit and radiant heaters, thermal curtains, pipe insulation, and greenhouse sprinkler hardware; building insulation; lighting and lighting controls; and scientific irrigation scheduling (per irrigated acre).

Reimbursements based on calculated savings for specific project: irrigation pump variable frequency drives; irrigation system conversions; greenhouse glazing and boilers; custom lighting and lighting control upgrades; and insulation and dehumidifiers for licensed cannabis and hemp indoor grow facilities.

Custom projects may receive a percentage of project cost.

Annual Spending by Energy Trust of Oregon for agricultural energy efficiency measures:
Agricultural Equipment (2019):
$364,761 non-cannabis/$1,143,677 cannabis ($1,134,801 for lighting and controls)

Greenhouse upgrades (2019):
$238,918 non-cannabis/$46,910 cannabis

Irrigation (2019):
$1,211,098 Non-cannabis/$0 cannabis

Program website: https://www.energytrust.org/programs/agriculture/

USDA Natural Resources Conservation Service Environmental Quality Improvement Program (EQIP) On-Farm Energy Initiative

Program Description: Agricultural producers planning an energy saving project may apply for EQIP grants for up to 75 percent of project costs with funding awarded as part of a competitive process.[2] Historically underserved farmer or rancher groups, including veterans, farmers or ranchers with limited resources, beginning (less than ten years of experience) farmers or ranchers, and socially disadvantaged farmers or ranchers, may qualify for up to 90 percent of project costs under the program.[3]

The Oregon USDA office received an allocation of $22.7 million in EQIP funding for 2020, with portions of the state allocation set aside for specific conservation priorities, including $100,000 for the On-Farm Energy Initiative which specifically targets energy saving projects. Energy is one of six NRCS categories of "resource concerns" that eligible projects may address, with individual projects frequently listing multiple resource concerns; other areas of resource concern include soil, water, air, plants, and animals.[4] The Oregon NRCS office maintains a payment schedules for specific equipment or improvements, including funding for an Agricultural Energy Management Plan or other qualifying energy audit, which is required of all applicants.

Note: While the EQIP On-Farm Energy Initiative specifically targets energy savings, two other NRCS conservation programs include energy on the list of "resource concerns" for which projects can receive funding: Conservation Stewardship Program and Regional Conservation Partnership Program. Oregon is one of the leading states in receiving funds under NRCS conservation programs, and Oregon irrigation modernization projects with energy savings have recently received funding under the Regional Conservation Partnership Program.[5]

Eligible Uses of Program Funds: Core energy practices: farmstead energy improvements, irrigation water management, pumping plant, lighting system improvements, and building envelope improvements.

Other eligible energy-related practices: combustion system improvements, cover crops, micro irrigation, irrigation sprinklers, mulching, residue and tillage management, waste recycling, and windbreak establishment.

Annual Awards in Oregon for USDA NRCS projects where energy was listed as one of the project's resource concerns:
Environmental Quality Improvement Program: $619, 576 (2019)
Conservation Stewardship Program: $315,438 (2020)
Regional Conservation Partnership Program: $363,631 (2019)

Program website: https://www.nrcs.usda.gov/wps/portal/nrcs/main/or/programs/financial/eqip/

USDA Rural Development Rural Energy for America Program (REAP)

Program Description: The REAP program offers 1) grants that cover up to 25 percent of total project cost, with remaining costs required to be covered by non-federal funding sources; and 2) loan guarantees that cover up to 75 percent of the total project cost, with combined grant and loan guarantee funding limited to 75 percent of total eligible project costs. REAP funding may be combined with funding from other sources, such as Energy Trust of Oregon, but federal funding from any source may not account for more than 25 percent.

Funding under the REAP program may be used for either energy efficiency or renewable energy projects, although in Oregon this funding source is used almost exclusively for solar electric systems. In 2019, over 99 percent of the REAP grant funds went to solar projects, with loan guarantees almost exclusively covering loans for solar electric projects as well.

REAP recipients must be either agricultural producers with at least 50 percent of gross income coming from agricultural operations or a business located in a rural area. USDA does not require applicants to identify whether they are an agricultural producer; however, information supplied on applications suggests that approximately 30 percent of 2019 grant funds awarded for renewable energy went to farms or vineyards, while one of the two 2019 grant funds awarded for energy efficiency projects went to an agricultural producer.

Eligible Uses of Program Funds: Purchase, installation, and construction of energy efficiency improvements or renewable energy systems.

Annual spending for USDA Rural Development REAP program in Oregon: 2019: $832,727 total REAP funds awarded (single funding pool for both renewable energy and energy efficiency; one energy efficiency project received grant funding in 2019)

Program website: https://www.rd.usda.gov/programs-services/rural-energy-america-program-renewable-energy-systems-energy-efficiency/or

[1] Bonneville Power Administration. Email communication. (September 30, 2020).
[2] U.S. Department of Agriculture Natural Resources Conservation Service, Oregon webpage. "On-Farm Energy Initiative practices and ranking questions: Fiscal year 2020." Accessed at https://www.nrcs.usda.gov/wps/PA_NRCSConsumption/download?cid=nrcseprd1556830&ext=pdf.
[3] U.S. Department of Agriculture Natural Resources Conservation Service website. "Historically Underserved Farmers and Ranchers." Retrieved October 7, 2020 from https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/people/outreach/slbfr/?cid=nrcsdev11_001040.
[4] U.S. Department of Agriculture Natural Resources Conservation Service. (October 2019) "National Resource Concern List and Planning Criteria." Pages 2-3. Retrieved October 18, 2020 from https://directives.sc.egov.usda.gov/OpenNonWebContent.aspx?content=44299.wba.

[5] U.S. Department of Agriculture Natural Resources Conservation Service. "Current Oregon Projects Under the RCPP." Retrieved September 18, 2020 from https://www.nrcs.usda.gov/wps/portal/nrcs/detail/or/programs/farmbill/rcpp/?cid=nrcseprd360643.