

# ENERGY SMART

## Reserved Power



### The Bonneville Power Administration

BPA is a non-profit federal power marketing administration based in the Pacific Northwest. BPA is part of the U.S. Department of Energy and is self-financed by selling power products and transmission services. BPA markets wholesale electrical power from 31 federal hydroelectric dams in the Northwest, one nonfederal nuclear plant, and several small nonfederal power plants. The dams are operated by the U.S. Army Corps of Engineers and the Bureau of Reclamation. The nonfederal nuclear plant, Columbia Generating Station, is owned and operated by Energy Northwest, a joint operating agency of the state of Washington. BPA provides about 28% of the electric power generated in the Northwest. With its primary energy resource being hydroelectric, BPA power is nearly carbon-free.

BPA owns, operates, and maintains more than 15,000 circuit miles of high-voltage transmission and numerous power substations in its service territory. BPA's territory includes Idaho, Oregon, Washington, western Montana, and small areas of Eastern Montana, Northern California, Nevada, Utah, and Wyoming.

### Breakdown of BPA load obligations

The majority of BPA's regional load obligations is to provide power to its 146 utility customers, as represented in the pie graph to the right.

The obligation to supply the Federal Reserved Power customers and Station Service with the energy to operate and maintain the Federal Columbia River Power System (FCRPS) infrastructure, which includes river navigation, recreation, and fish enhancement, is the highest priority. When these loads are met, BPA then fulfills its other load requirements, including retail sales.

### What is Reserved Power and Station Service?

Reserved Power is a ratable construct designated by Congress designed for 27 irrigation districts in support of 13 Reclamation projects that construct, operate, and maintain irrigation infrastructure. Reserved Power was implemented in the Pacific Northwest in the 1910s with the construction of the first federal hydroelectric facilities on the Snake River, followed by significant construction of additional hydroelectric facilities on the Columbia River, beginning in the 1930s.

Nearly all irrigation districts in the Pacific Northwest that receive water from Reclamation projects receive a portion of through energy from Reserved Power.

Station Service represents hydroelectric facilities, BPA transmission substations, recreation facilities, and some fish hatcheries that receive electricity directly from BPA's grid.

### ESRP Program Overview

BPA's Energy Smart Reserved Power (ESRP) is an energy efficiency program that assists Reserved Power end-users and federally owned facilities with Station Service with energy and water-saving projects. Financial incentives are provided to offset the implementation costs for qualified energy efficiency measures.

Unlike BPA's other energy efficiency programs that provide services to retail utility providers, the ESRP program is designed to work directly with Reserved Power and Station Service end-users to support their energy efficiency projects.

However, some electrical loads may not qualify for ESRP program incentives.

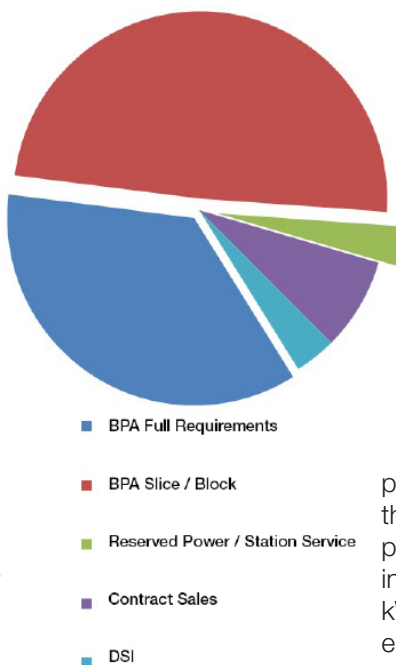
Therefore, some recipients of Reserved Power will be encouraged to work with their local utility or other agencies to determine whether energy efficiency financial incentives are available.

### Delivering Value to the Northwest

Reserved Power is not well-known to the general public because its delivery is directed to the end-user from the generation site—typically without a public or private utility providing electricity to serve the load. However, a public or private utility may also provide electricity to the irrigation district. Since 2012, the ESRP program has invested approximately \$15.9M in incentives representing 8.03 aMW (or 70M kWh) in energy savings from implementing energy efficiency projects. Additionally, this program created added generation of 19.2 aMW (or 168M kWh) through water conservation efforts.

In addition to energy and water savings, the entire region benefits from the ESRP Program's low-cost energy efficiency acquisition cost and the retention of water in the river due to the added generation and wildlife management benefits.

Breakdown of BPA load obligations



## Eligible Participants

Eligible participants include federally chartered irrigation districts served with Reserved Power and U.S. Bureau of Reclamation Hydro Facilities, U.S. Army Corps of Engineers Hydro Facilities, Federal Fish Hatcheries, and BPA Facilities and Transmission Services with Station Service.

Only federally chartered irrigation districts are eligible to participate in the Open Enrollment Window.

## Eligible Measures and Incentives

Typical projects include energy-saving measures such as efficient pumps, variable speed drives, canal piping and lining, and gate automation controls. In addition, improvements such as HVAC, compressed air, building shell, and LED lighting are also eligible for incentives.

The ESRP program has the flexibility to use a wide array of qualified energy measures from across BPA's Energy Efficiency portfolio to meet project needs. Any BPA-approved strategy or industry-proven measure will be considered as a possible measure. The ESRP Incentive Rate Reference Table (IRRT) is a program resource that provides incentive caps for standard measures. Incentive rates are measure-specific and may vary by project type and measure life. An additional resource available is the ESRP Measure Reference Guide (MRG). This guide provides a description of the measures outlined in the IRRT and identifies project requirements. If you are pursuing a measure that is not listed in the IRRT or MRG, please contact [esrp@bpa.gov](mailto:esrp@bpa.gov) for further assistance.

Special considerations include, but are not limited to:

- The max allowable incentive is \$500k per project per participant per year
- Multi-year projects and partial payments will be evaluated on a case-by-case basis
- Total incentives from co-funded projects may not exceed 100% of the project costs Energy savings captured from self-funded projects (without ESRP incentives) may be reported to BPA's regional energy efficiency targets.

## Turnkey Technical Assistance

ESRP program staff offer technical assistance from project identification and application fulfillment, to energy savings validation. A BPA engineer will work with you to identify potential projects and may set up measurement devices to baseline or calculate savings.

## Measurement and Verification Process

All projects are required to undergo a measurement and verification (M&V) of energy savings before incentives are paid. Each agreement will outline the requirements to fulfill the M&V process. As part of the process, participants are required to submit final invoicing, technical documentation, and evidence the measure is installed and operational.

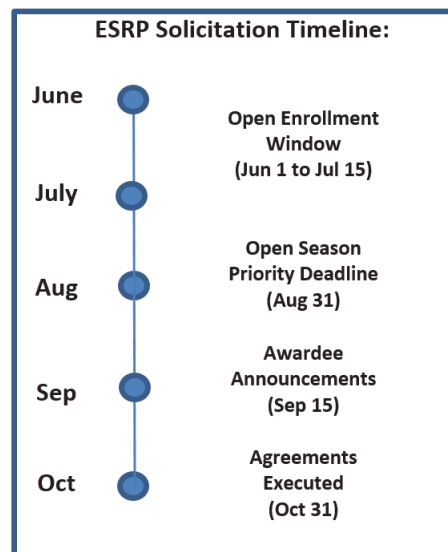
## Annual Budget

The ESRP budget is renewed annually and is subject to change. Typically, the budget is \$2-2.5M per year. Open Enrollment projects that are the most cost-effective and have the greatest benefit to the region are given funding priority; however, funding is not guaranteed for all applicants. Open Season applications may be received before the awardee announcements but will not be reviewed until Open Enrollment commitments have been announced.

## Competitive Application Process

The application process for ESRP financial incentives is competitive, which enables the greatest electric savings to be achieved with a limited budget. Projects that provide water savings for the FCRPS are given some preference in the selection process.

The ESRP application identifies maximum incentive rates for different project types. Applicants may want to choose a lower incentive rate to increase the competitiveness of the application but are not required to do so. Projects with lower incentive rates and water savings are more competitive, which allows the ESRP program to support more projects with the available funds.



Upon completion of the Open Enrollment Window, applications will be evaluated, ranked, and selected for an award, based on best incentive/kWh and benefit/cost-ratio to BPA as funds are available and will be announced before BPA's fiscal year (Oct to Sep).

This competitive application period will be followed by an Open Season provided there are remaining funds. Open Season applications received by August 31 will be evaluated-ranked as a secondary priority and sequential applications will be reviewed on a first-come-first-serve basis once priority awards have been announced. Once funds have been depleted, the Open Season will close.

Funding is secured once the ESRP Agreement is executed and structured to match BPA's funding cycle. The energy savings from completed projects support the achievement of BPA's savings targets for the fiscal year in which they were funded.