



Residential Resilient Energy Storage Initiative (RRESI)



Inland Power and Light Cooperative

- Non-profit, consumer-owned electric cooperative
- Founded in 1937
- ~50,000 members
- Largest cooperative in the region
 - Multi-Jurisdictional (not PUC regulated)
 - 13 counties in Eastern Washington and North Idaho
- USDA has obligated funds to IPL for a power purchase agreement
 - Requires a community benefit plan
 - Community benefit plan committed to battery storage pilot



Building Trust through Innovation

- Enhance RRESI effectiveness, legitimacy, and community trust through inclusive engagement
 - Improves Relevance
 - Program will reflect actual community needs and priorities
 - Identifies Blind Spots
 - Public input can reveal overlooked challenges or opportunities
 - Generates Innovative Ideas
 - Diverse perspectives leads to creative solutions
 - Improves Participation and Buy-In
 - Early buy in makes policies easier to develop, adopt and adapt
- Goals
 - Transparent
 - Engage early and often
 - Empower member resiliency
 - Identify additional cost/benefit opportunities
 - Enable active and vocal participation



*The BEST program is
your opportunity to
unlock energy savings
for your home!*



RESIDENTIAL REQUIREMENTS & APPLICATION

COMMERCIAL REQUIREMENTS & APPLICATION

BEST AGREEMENT

BEST AGREEMENT

The BEST low interest financing program (5%) is a great opportunity to get energy saving projects completed in your home! This tariff program is offered to members for specific energy savings projects that are allowed under the Rural Energy Savings Program (RESP). The RESP is overseen by the United States Government acting through the Rural Utilities Service (RUS) office.

Identify your residential or commercial energy savings project and learn more!

- Lighting
- HVAC
- Heat Pumps
- Appliances
- Insulation
- Solar and/or Battery Storage



Program Overview

Inland Power and Light Cooperative (Inland Power), in collaboration with regional and industry partners, is launching a four-phased pilot program to deploy 100–650 residential battery storage systems in homes in our services territory. This initiative aims to:

- **Reduce wildfire risk** reduce impact to residential member during planned and unplanned outages.
- **Gauge customer appetite for demand response** and distributed energy resource (DER) participation.
- **Support clean energy goals** in alignment with Washington's Clean Energy Transformation Act (CETA) and Clean Energy Implementation Plan (CEIP).
- **Deliver community benefits** in accordance with the NewERA grant requirements and our Mission is our Members!
- **Send price signals for demand response** through partnerships



Why Would I Participate?

- IPL has prioritized Hoo Doo Substation (Blanchard Area)
 - More trees and heavy vegetation
 - Longer and more frequent power outages
 - Large number of medical necessity members
- A BIG VOICE
 - Pilot participants will drive how/if this program can be rolled out in other areas
 - First in line for potential demand response rate program
- Greater control
 - Member decides how to configure home to maximize duration
- Reduced Cost for Battery
 - USDA Building Energy Savings Today (on-bill)
 - \$1 million allocated for compliance with USDA NewERA grant
 - IPL allocated independent funding
 - Potential partners and alternate sources of funding



Design - Phase 1 (current)

- Timeframe: Jan 2025 – Jan 2026
- Objectives:
 - Community/stakeholder engagement
 - Technical and regulatory framework
 - Reducing financial hurdles and equalizing (to the extent possible) the cost per member
- Activities:
 - Establish incremental pricing
 - Outreach, modeling, and procurement planning
 - Collaboration with Avista, Bonneville, and others



Develop - Phase 2 (future)



- Timeframe: Jan 2026 – Mid 2026
- Objectives:
 - Procure Enphase residential battery systems
 - Identify software and IPL dispatch responsibilities and stakeholders
- Activities:
 - Negotiate software agreements, and develop logistics, and processes
 - Finalize program specifics
 - Recirculate opportunity to sign up and finalize participant list
 - Conduct site assessments as appropriate
 - Establish data collection and monitoring systems

Deploy - Phase 3 (future)

- Timeframe: Mid 2026 – Mid 2027
- Objectives:
 - Ongoing procurement and installation of Enphase residential battery systems
 - Integrate battery systems with existing home energy infrastructure.
 - Train IPL staff on software and dispatch
- Activities:
 - Finalize software agreements and implement and processes
 - Determine compensation strategy for incremental energy curtailments
 - Ongoing site assessments and installations
 - Implement data collection and monitoring systems



Demonstrate – Phase 4 (future)



- Timeframe: Mid 2027 – 2037
- Objectives:
 - Test and evaluate battery dispatch strategies for demand response and wildfire mitigation
 - Analyze customer behavior and satisfaction
 - Sufficient saturation of battery backup at Hoo Doo substation
- Expected Activities:
 - Real-time battery dispatch using third-party software
 - Data analysis on grid impacts, emissions, and customer engagement
 - Reporting and dissemination of results
 - Roll out demand response financial incentives to members as applicable



NorthWest Renewables

Northwest Renewables

About Northwest Renewables

Potential Harms of Power Outages

Medical Devices - Life or death for vulnerable / immunocompromised / elderly

Water Well - Substantial inconvenience / interruption in ability to wash dishes, laundry and bathing. Loss of life and economic harms impacting livestock water.

Fridge & Freezer - Health and economic impacts of food spoilage.

Internet and Communications - Unsafe conditions / interrupted communications due to loss of internet, security systems.

Lighting - Inconvenience due to loss of lighting.

Goal - To offer a proven scalable turnkey solution that delivers automatic back-up of residential critical loads.

Proposal: Home Battery Back-up Solution

A home battery back-up system

Designed to back up the critical loads for each unique customer

With maximum output current of 29.5A, peak output of 56A (3 sec), and a usable capacity of 10kWh.

Can integrate with existing whole home generators

Reputable brand

Including owner monitoring and manual discharge controls.

Leveraging incentives to make this modern solution reasonably cost effective.



Northwest Renewables



Northwest Renewables

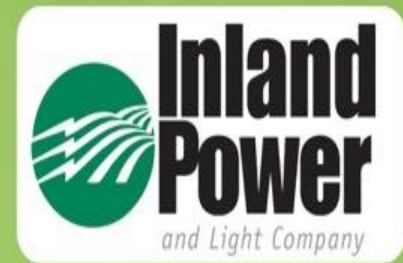
Solution Components -

- Enphase 10C Battery - Energy storage device
- 6C Combiner Box - Manages switching and communication. Manages other auxiliary energy feeds (ie generator)
- Meter Collar - Point of interconnection
- Critical Loads Panel - Custom solution for each homeowner to identify, isolate, and back up their critical loads.
- External Disconnect - Can be disconnected from MSP in case of emergency.

Limitations

- Subject to maximum output and storage limitations. One 10C battery will likely be insufficient to handle massive loads of electric heat; won't run your hot-tub for very long; will not run your welder.
- Installation subject to existing code-compliant main service panel
- Installation subject to availability of required space in a code-approved area (garage, basement, utility closet)





Questions



Member Feedback



Member Feedback

1. The cost for a minimal battery setup, installed in a member's home, is between \$20k and \$30k per house. IPL wants to balance the size of battery and installation flexibility, with the monthly bill impact to the member. Do you care more about?
 1. Monthly financial impact
 2. Capabilities (KW) of and flexibility of the battery system
2. When determining the overall capability of the entry-level battery system, the financial impact to the member is a deciding factor. What is the maximum addition to your monthly power bill that you would consider?
 1. \$20/month
 2. \$50/month
 3. \$100/month
 4. I would participate even if I fully pay the price of the battery, just having the financing option on my power bill is helpful



Member Feedback

3. Would you configure your home with:
 1. Only the emergency essential backup (e.g. internet, heat, freezer, water pump and lights)
 2. Entire house to minimize disruption (up to the capabilities of the battery)
 3. Something in between
4. Would you want to have the ability to connect a backup generator or solar array to the battery:
 1. Only if the overall cost to me is unchanged
 2. Yes, within financial limitations
 3. No need
5. If additional funding sources were available for low-income, would you:
 1. Increase participation, e.g. add another battery
 2. Same participation, but would see a lower monthly charge
 3. Low-income qualified funding would not impact my participation



Next - Phase 2

Don't forget to sign up

KEEP ME IN THE LOOP

