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March 7, 2023

MEMORANDUM

TO: Council Members

FROM: Kevin Smit, Senior Energy Analyst

SUBJECT: BPA's Energy Efficiency Action Plan 2022-2027

BACKGROUND:

Presenters: Bonnie Watson, Interim Planning & Evaluation Manager,

Eric Mullendore, Acting Manager for Energy Efficiency Programs

Summary: Bonneville Power Administration (BPA) staff will present a summary of

their Draft Energy Efficiency Action Plan that covers the period from 2022 through 2027. The Energy Efficiency Action Plan is a forecast of how BPA and its public power customers can achieve its energy efficiency target and meet a variety of customer and resource-driven needs. The draft action plan was issued February 2023 and forecast savings from 2022 through 2027. Bonneville has a comment period for the draft plan open until March 17, 2023. This presentation and discussion is intended to

inform any Council comments on the EE Action Plan.

Relevance: The 2021 Power Plan set a regional target of 750-1000 average

megawatts of cost-effective savings from 2022 to 2027. The BPA portion

of this target is 270-360 aMW. In addition, the Plan set a specific programmatic target of 243 aMW of cost-effective energy efficiency. In addition to the target amounts of efficiency, the 2021 Power Plan

Conservation Program outlines several other actions for Bonneville and the region. The Energy Efficiency Action Plan is BPA's forecast of how they will achieve this all elements of the 2021 Plan Conservation Program.

Background: The 2021 Power Plan was released in early 2022 that includes a comprehensive resource strategy for the region, and for Bonneville. This strategy calls on Bonneville to:

- Acquire between 270 and 360 aMW of cost-effective energy efficiency by 2027
- Acquire a minimum of 243 aMW of cost-effective energy efficiency by 2027 from programmatic savings
- Work with the Council to ensure that a budget is established to successfully meet the Plan's energy efficiency targets
- Work with their small and rural utilities and provide territory-wide programmatic opportunities to enhance the infrastructure for these utilities
- Provide continued funding of NEEA initiatives will also provide necessary support for training and other infrastructure to address implementation barriers across its customer utility footprint
- Continue to fund research and development on emerging technologies in an amount commensurate with 2020 levels or greater
- Continue to fund regional market research, stock assessments, evaluation, and related analysis in an amount commensurate with 2020 levels or greater
- Support initiatives to enhance building codes and appliance standards, at both the state and federal governments
- Support utilities with aggressive decarbonization goals

The BPA EE Action Plan outlines its strategy for achieving the conservation goals in the 2021 Power Plan. BPA publishes an energy efficiency action plan every six years, with this draft plan covering the 2021 Power Plan action plan period (2022-2027). In addition to meeting the requirements of the 2021 Power Plan, BPA also considered the results of their 2022 Resource Program, meeting customer needs, and considering value beyond energy savings. In developing the Action Plan, BPA notes a variety of drivers and challenges, including the COVID-19 pandemic, supply chain limitations, labor shortages, higher costs for raw materials and finished products. In addition, the lower avoided cost of energy efficiency, declining potential for low-cost efficiency, changing resource needs, and policy and legislation requirements.

More Info:

https://www.bpa.gov/energy-and-services/efficiency/action-plan https://www.nwcouncil.org/2021powerplan_bpa-target_energy-efficiency-targets/

https://www.nwcouncil.org/2021powerplan_research-support-effective-implementation-conservation-program/

Draft Energy Efficiency Action Plan 2022-2027



NWPCC Meeting March 14, 2023



Agenda

- Action Plan Objectives and Guiding Principles
- Factors Influencing the Action Plan
- Development Process
- Goal
- Budget
- Total Forecasted Savings
- Sector Strategies and Savings
- Demand Response Goals
- Next Steps

Action Plan Objectives

1 2 3

Acquire energy
efficiency savings that
provide the greatest
power resource
benefits. Align with
2022 Resource
Program selections.

Meet BPA's share of the energy efficiency goals established in the 2021 Power Plan and prioritize cost-effective measures. Offer a portfolio that all BPA customers can implement and support small, rural, and residential utilities.

Guiding Principles



Meet BPA's
Resource Needs
and Power Plan
Obligations

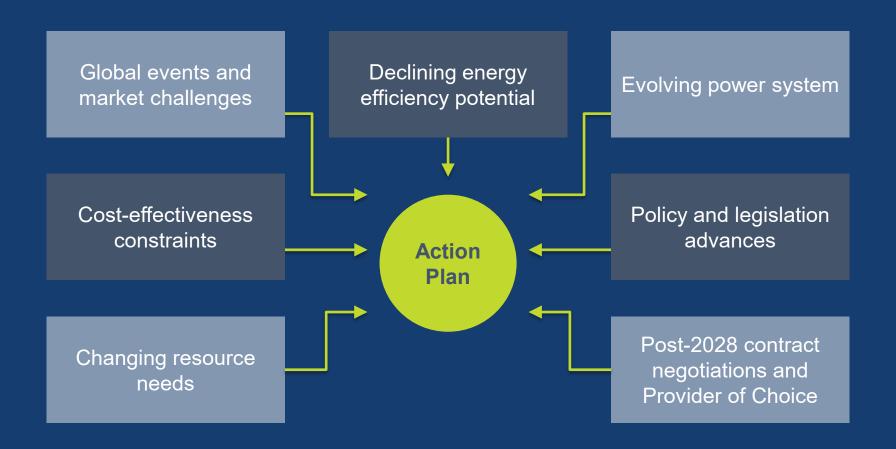


Meet BPA Customer Needs



Consider Value Beyond Energy Savings

Factors Influencing the Action Plan







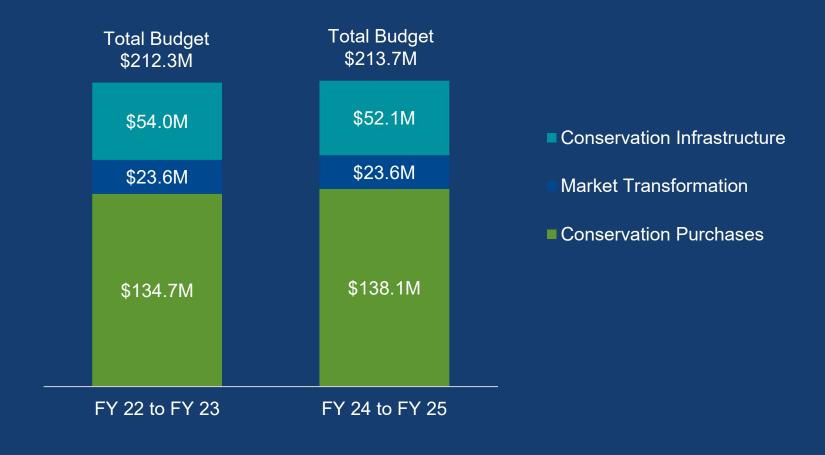
Action Plan Goal

300 aMW

2022-2027

- Represents a goal BPA is well positioned to achieve
- BPA will adaptively manage its portfolio to address changing conditions and if needed implement corrective actions

BPA Budget by Source & Rate Period



Forecasted Savings

Program Area	2022 to 2027 Total (aMW)
BPA Programs*	278
NEEA Market Transformation	46
BPA Momentum Savings	30
Total BPA Savings	354

^{*} Includes 19 aMW of unallocated savings (calculated by using rate period surplus to achieve additional savings). Assumes 30% utility self-funded savings.

Strategic Priorities Across Sectors



Residential

Supporting measures that reduce residential heating and cooling loads and high-efficiency water heating measures

Exploring ways to improve the Low Income Program and promote weatherization, including removing applicant registration barriers and simplifying implementation



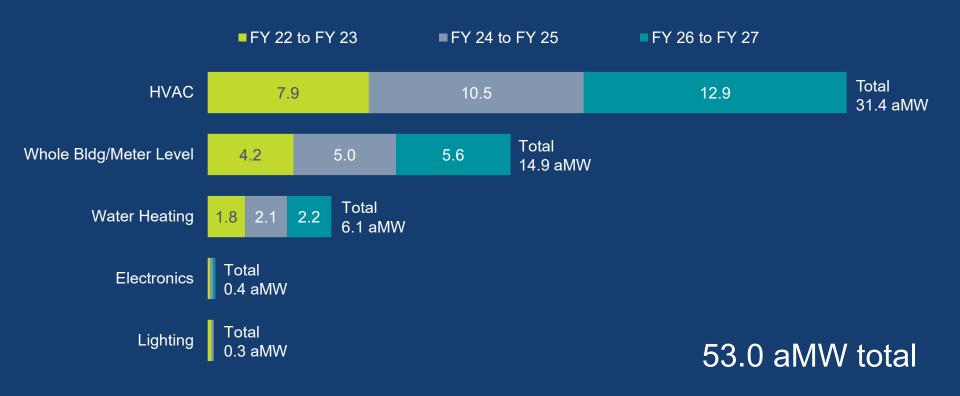


Adding new measures in areas such as HVAC, refrigeration, and energy management

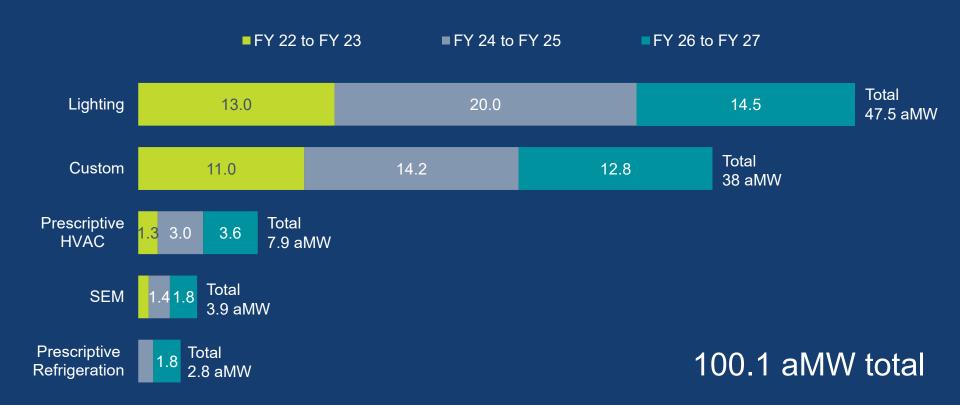
Making targeted incentive increases

Exploring midstream delivery mechanisms for lighting

Residential Program Savings by End Use



Commercial Program Savings by Channel



Strategic Priorities Across Sectors



Industrial

Continue prioritizing custom and lighting projects

Making targeted incentive increases

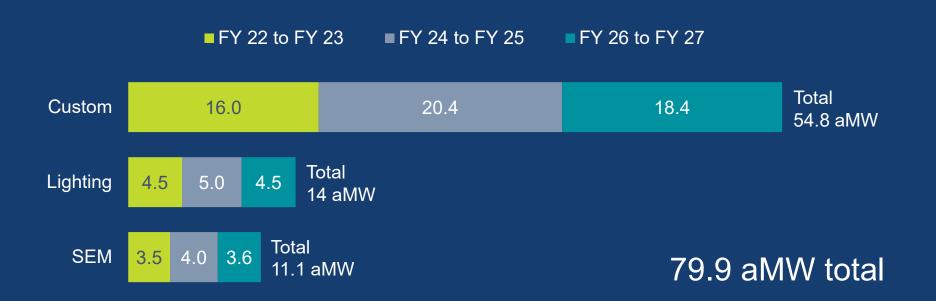


Agricultural

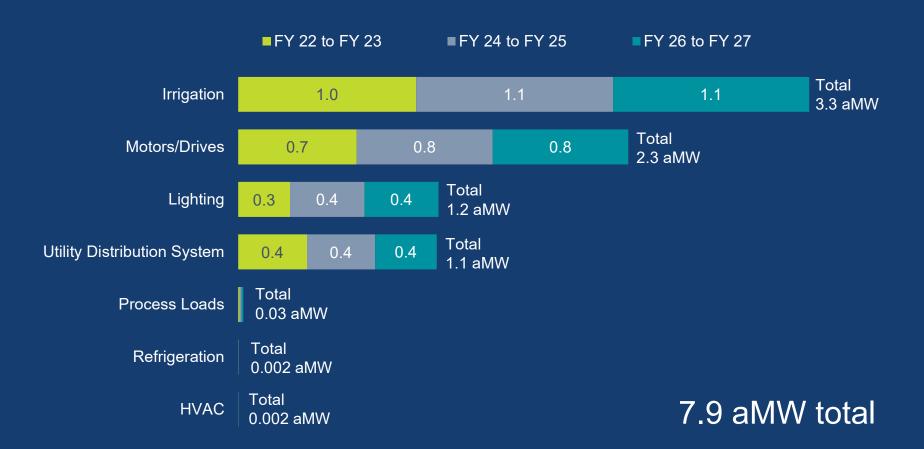
Investing in demonstration projects to promote Zonal Variable Rate Irrigation conversions and Advanced Water Management irrigation scheduling

Agricultural Energy Audits to help ease burden on producers

Industrial Program Savings by Channel



Agricultural Program Savings by End Use



Strategic Priorities Across Sectors



Federal

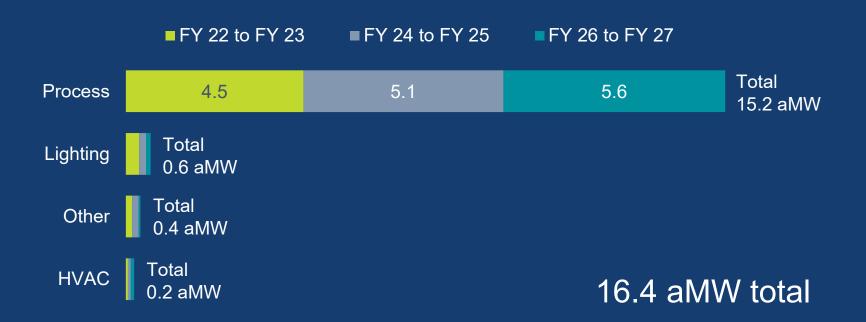
Performing a market potential assessment to identify projects with higher benefit-cost ratios



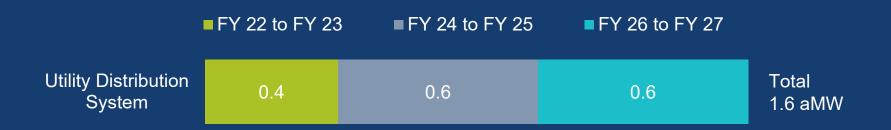
Utility Distribution

Increasing communication with utility management to promote the value of conservation voltage reduction (CVR) measures

Federal Program Savings by End Use



Utility Distribution Savings by End Use



Goals for Demand Response

- Resource Program and Power Plan selected 300 MW of DR by end
 of FY 26
 - Low cost, frequently deployable technologies that provide energy resource (not capacity)
 - Demand voltage reduction (DVR) and time-based pricing
- BPA will:
 - Work with customers to explore the potential to implement DVR and potentially rate-based DR
 - Propose an implementation plan to steer our efforts through 2027

Portfolio Management Steps

Refine BPA's Energy Efficiency Program Evaluate portfolio offerings and delivery channels

Focus on customer needs

Monitor new policy impacts

Provide a midterm progress update

Key Dates



Public comments accepted 2/21 to 3/17 (Deadline Extended)



Public comment review and response



Revisions to Draft Action Plan

Final Action Plan published by end of April

CONTACT

Bonnie Watson
ofwatson@bpa.gov

Eric Mullendore ejmullendore@bpa.gov

Questions?