Bonneville
POWER ADMINISTRATION

INTEGRATED PROGRAM REVIEW ENERGY EFFICIENCY

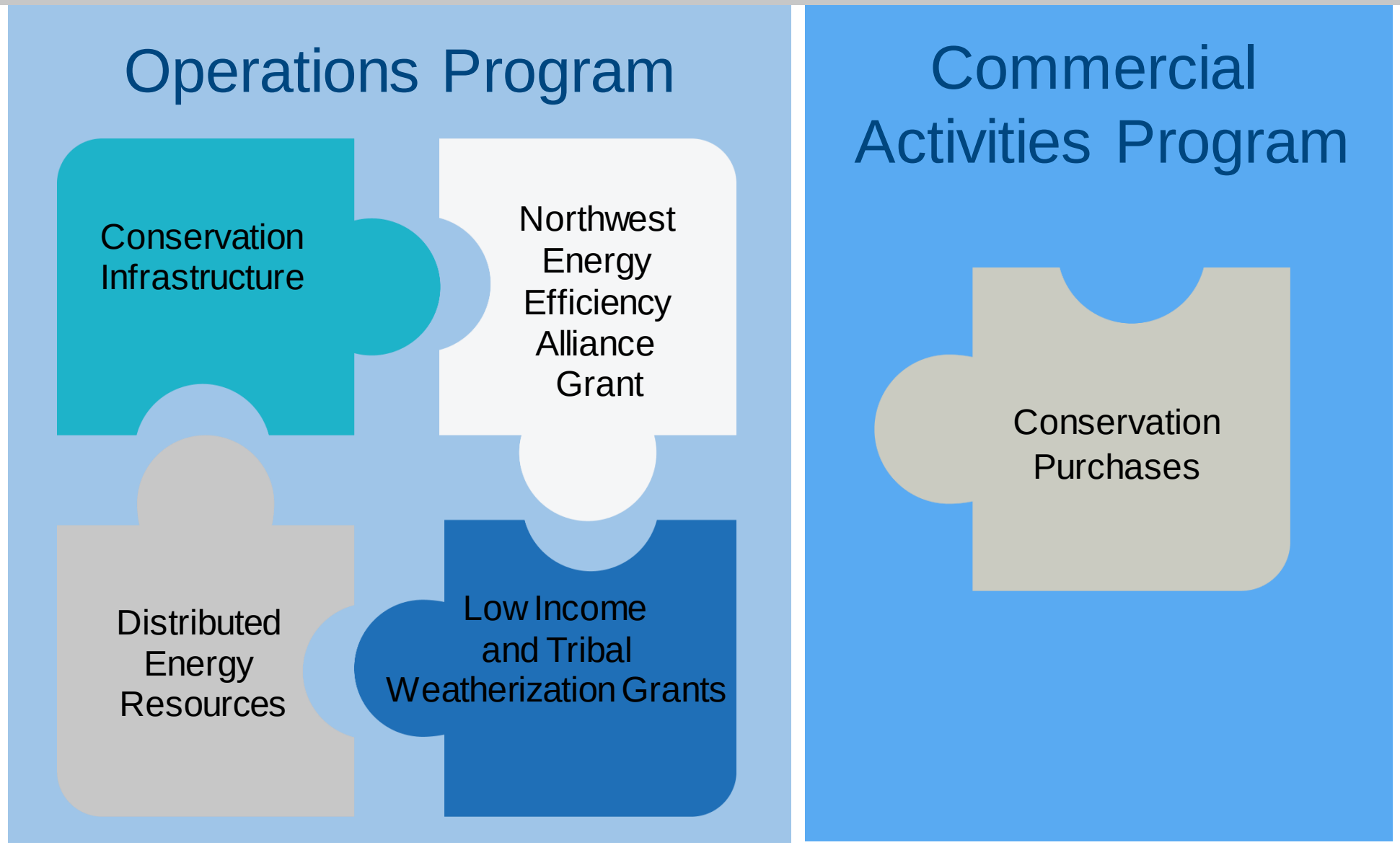
JUNE 17, 2020

Through its Energy Efficiency (conservation) program, BPA meets its obligation to acquire and encourage the development of energy savings to maximize the value of the Federal Columbia River Power System and lessen BPA's need to acquire other resources to supply firm power to its customers.

AGENDA

- Welcome and Introductions – Jamae Hilliard Creecy
- Conservation Infrastructure – Dave Moody
- Low Income and Tribal Weatherization – Dave Moody
- Distributed Energy Resources – Lee Hall
- Market Transformation – Brent Barclay
- Conservation Purchases – Erin Hope
- Program Performance and Value – Danielle Walker
- Potential Risks Moving Forward – Lewis Doyle
- Next Steps – Jamae Hilliard Creecy

A STORY OF TWO PROGRAMS



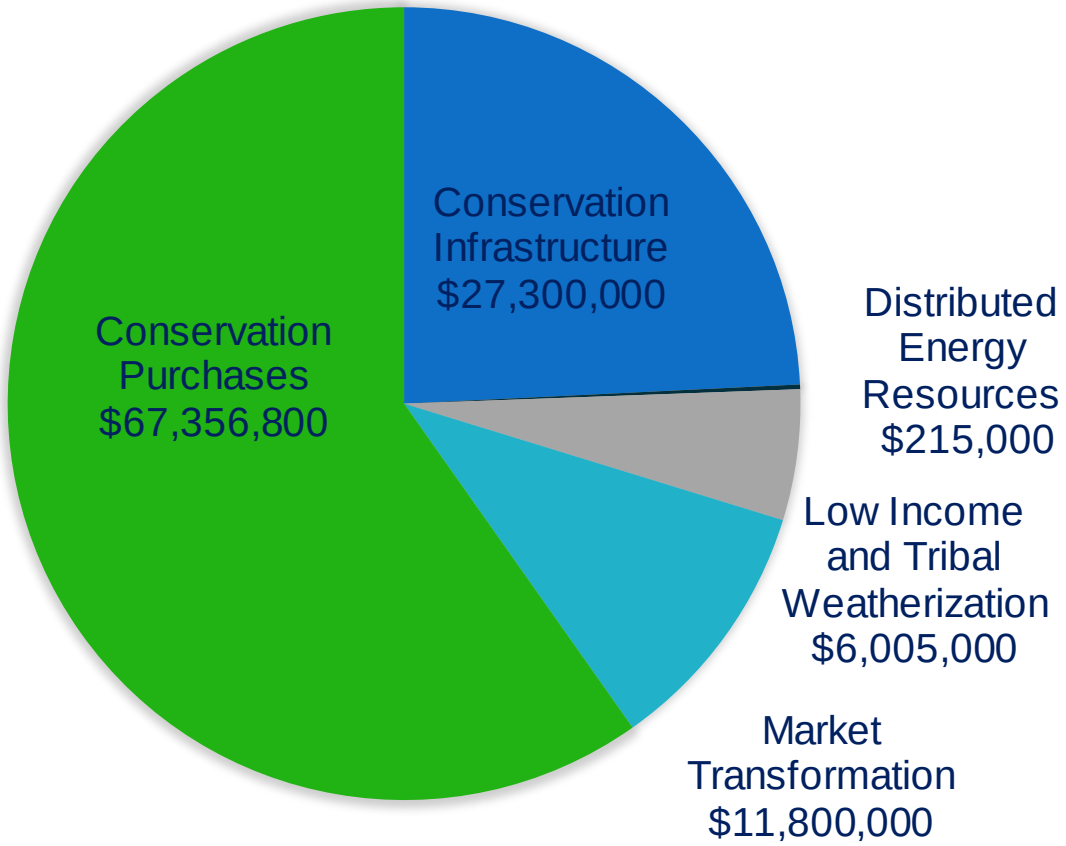
ENERGY EFFICIENCY IPR PROPOSAL

Proposed funding levels are flat relative to BP-20 Rate Case levels

Program Area	Actuals		Rate Case		Proposed IPR	
	2018	2019	2020	2021	2022	2023
Conservation Infrastructure	$21,148,073	$19,608,291	$27,295,703	$27,295,703	$27,300,000	$27,300,000
Distributed Energy Resources	$1,193,066	$906,924	$855,000	$855,000	$215,000	$215,000
Low Income and Tribal Weatherization	$5,523,391	$5,726,823	$5,739,000	$5,853,000	$6,005,000	$6,005,000
Market Transformation	$11,823,890	$11,657,780	$12,050,000	$12,050,000	$11,800,000	$11,800,000
Conservation Purchases	$81,923,387	$57,958,825	$67,000,000	$67,000,000	$67,356,800	$67,356,800
Total	$121,611,807	$95,858,643	$112,939,703	$113,053,703	$112,676,800	$112,676,800

SPENDING BY PROGAM AREA

Energy Efficiency BP-22 Fiscal Year Proposed Spend



CONSERVATION INFRASTRUCTURE

$27,300,000 annually

Funding supports critical infrastructure for program implementation

BPA's regional programmatic infrastructure

Provides specialized support services and technical expertise to augment and enable utility implementation efforts.

Momentum Savings research

Helps understand the efficiency that occurs outside of programs that provides value to the BPA power system without need to invest in incentives.

Emerging technology and measure maintenance research

Identifies and implements new efficiency measures, and ensures existing measures accurately reflect the real savings achieved.

CONSERVATION INFRASTRUCTURE

Funding supports critical infrastructure for program implementation

Quality control for the EE program, ensuring we have an accurate understanding of the impact of our EE acquisitions on BPA's resource needs.

A regional study to update how individual technologies impact the power system.

Contract support for energy efficiency activities.

LOW INCOME AND TRIBAL WEATHERIZATION

$6,005,000 annually

- Directly benefits low-income residents by funding the installation of energy-efficiency measures in their homes at no cost. This program provides critical assistance to the most vulnerable households in the BPA service territory.
- Grants to states are allocated on a proportional basis using the most current census data for households with incomes below federal poverty guidelines.
- Grants to tribes for low-income services are made on an application basis and take a variety of factors into consideration including geographic dispersion, prior participation and local needs.
- BPA is providing a modest increase for these grants, which is offset by funding reductions in other areas.

DISTRIBUTED ENERGY RESOURCES

$215,000 annually

- Funding covers service contracts for analyzing DER market trends, feasibility, availability and cost data, as it applies to resource planning and other power requirements.
- BPA will evaluate the development of products that can be physically located close to loads and review opportunities to acquire them when supply needs arise and it is cost effective to do so.
- DER implementation will be funded by Power and Transmission Services. This approach is consistent with the BPA 2018-2023 Strategic Plan and supports the agency's goals for cost competitive power services and efficient and responsive transmission services.

MARKET TRANSFORMATION

$11,800,000 annually

- BPA is one of 15 regional funding members of the Northwest Energy Efficiency Alliance. The grant is based on load share and helps enable efficiency transformations in targeted markets.
- A well-established channel for low-cost, long-term savings and is highly effective in markets that are challenging for traditional utility programs to reach.
- Verified savings from NEEA's intervention strategies and activities are counted towards BPA's annual savings accomplishments. NEEA's approach identifies opportunities and impediments, removes barriers and accelerates market adoption.

CONSERVATION PURCHASES

$67,356,800 annually

- A majority of Conservation Purchases funds are dedicated to the cost of Energy Efficiency Incentives (EEI). BPA customers locally deploy a broad array of energy saving measures and programs to serve their needs and those of their consumers.
- BPA plans for 70% BPA funding and 30% of savings funded directly by customer utilities.
- BPA will increase its emphasis on HVAC and weatherization savings to better align with BPA's Resource Program identified needs. These savings are more costly and difficult to acquire.

CONSERVATION PURCHASES

ENERGY EFFICIENCY INCENTIVES

- Changes in portfolio composition (e.g. the loss of inexpensive lighting measures) and a need to acquire a larger proportion of higher cost savings (e.g. HVAC and Weatherization) create some risk in BPA's ability to achieve forecast energy efficiency savings.
- A small increase to the EEI budget is offset by other reductions by funding reductions in other areas.

ENERGY SMART RESERVED POWER

- Provides funds for EE resource development through efficiency projects at federal agency facilities, including fish hatcheries, transmission substations, and Bureau of Reclamation irrigation projects, that draw power directly from the federal dams.
- By improving efficiencies at federal facilities, BPA increases the amount of power available to supply to its utility customers.
- Funding has been reduced compared to the prior rate period to better reflect program potential and to support augmentation of EEI funding.

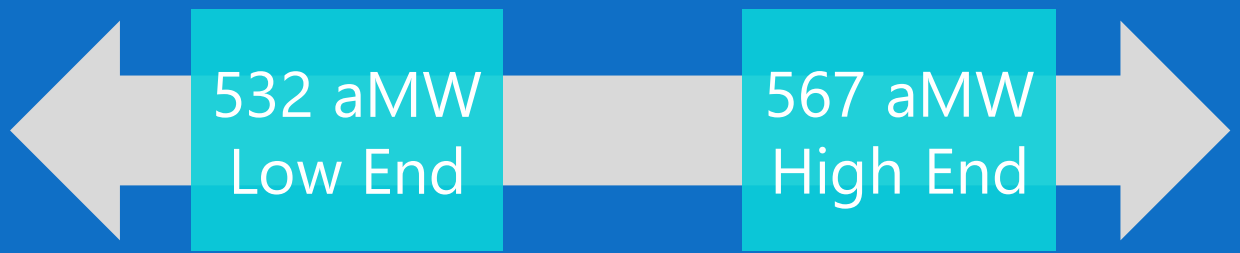
PROGRAM PERFORMANCE BETWEEN 2016-2021

BPA's 2016-2021 EE Action Plan originally projected a total of 581 aMW savings

- Programmatic Savings
- Momentum Savings
- Market Transformation

Transitioned to a savings range to reflect uncertainty:

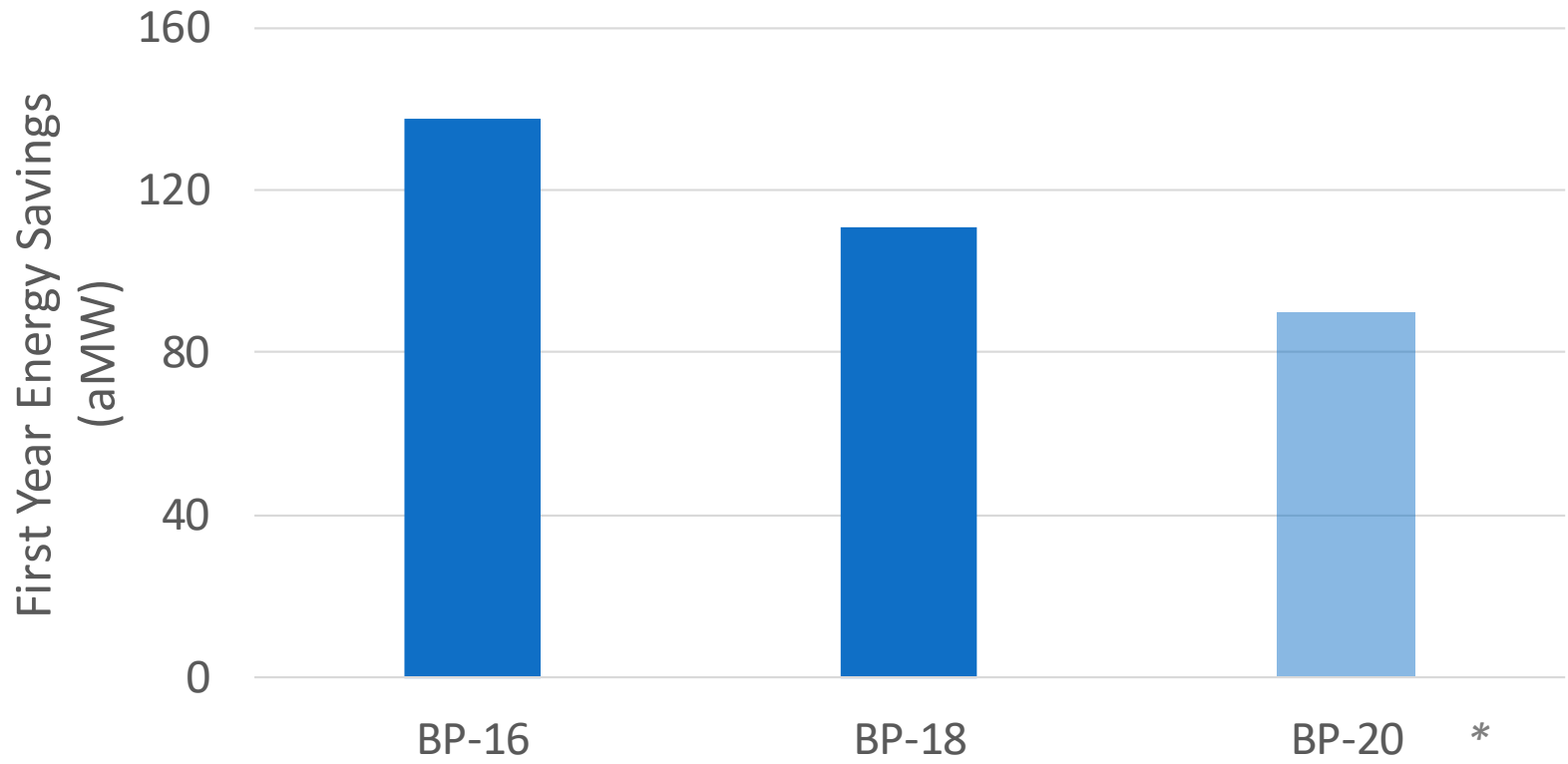
- Implementation of federal standards
- Market adoption rates
- Consumer behavior



PROGRAM PERFORMANCE BETWEEN 2016-2021

BPA Programmatic savings achieved by rate period

- Residential and Commercial sectors exceeded expectations
- Reflects a shift towards HVAC and weatherization savings



*BP-20 is based on projected EE Action Plan savings

VALUE OF ENERGY EFFICIENCY

- Over the past 38 years BPA and our customers have acquired more than 2,100 average megawatts of savings — twice the energy Bonneville Dam produces in an entire year.
- EE investments provide a buffer against market volatility. They, along with investments in generation and transmission, provide shock absorbers against future resource uncertainties and market fluctuations.
- EE investments have saved BPA millions of dollars in resource acquisition.
- BPA continues to shape its energy efficiency program by targeting investments and aligning acquisitions with needs identified in BPA's Resource Program.
- BPA investments also provide non energy benefits like improved health, safety, comfort and greenhouse gas reduction.

POTENTIAL RISKS MOVING FORWARD

FORECASTING SAVINGS

Other factors that may affect the forecast of energy efficiency savings include:

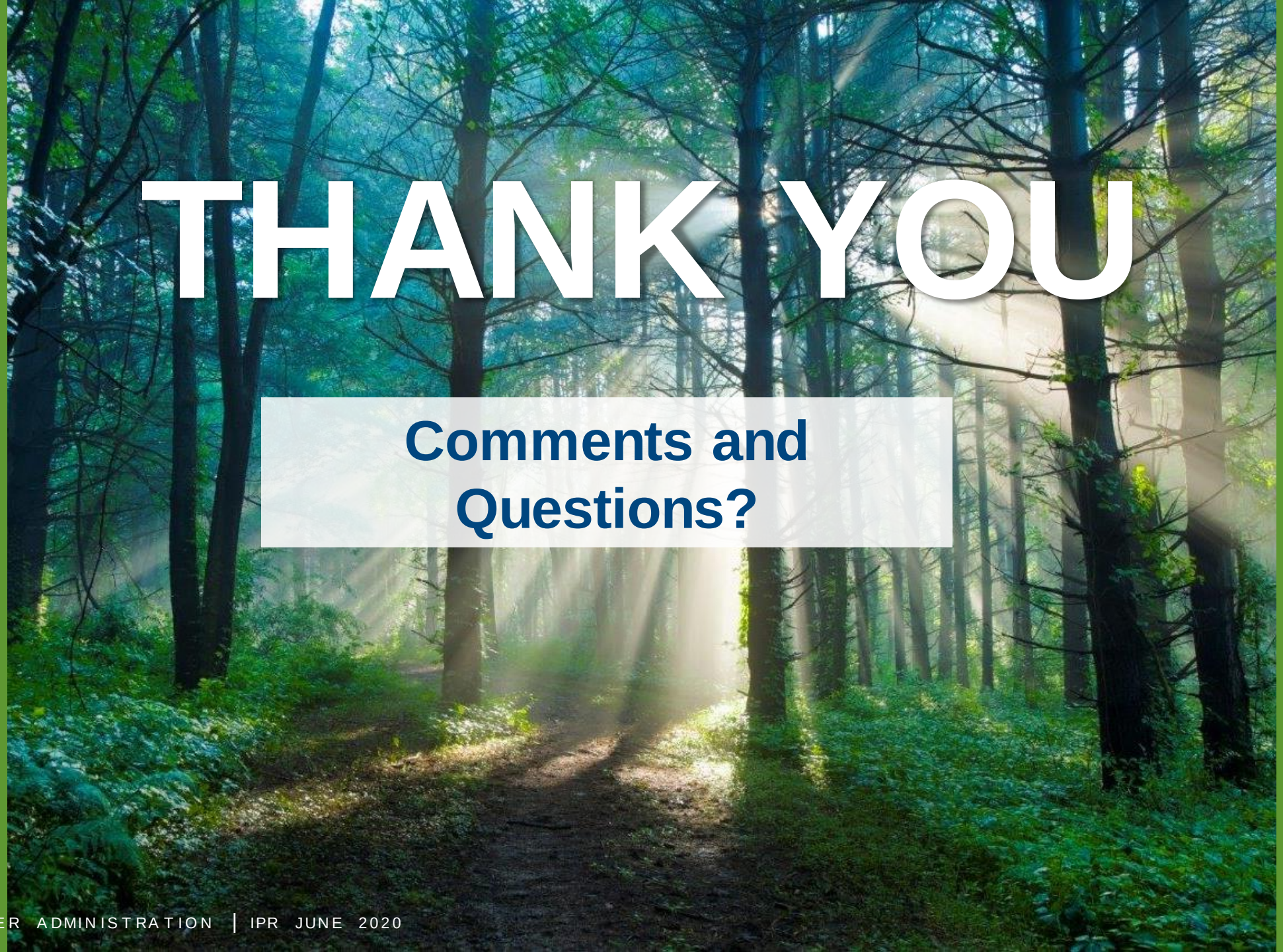
- Higher than expected costs of energy efficiency acquisition.
- The need to add or enhance program support services.
- Assumed volume or pace of market adoption may lag.
- Slow energy efficiency measure development.

CHANGING NEEDS

- BPA regularly evaluates the scale, scope, and composition of the existing program portfolio to ensure it continues to meet evolving customer needs while acquiring and verifying reliable energy savings.
- BPA's ability to identify, evaluate, and adapt to changes in customer's needs while ensuring reliable energy savings may be impacted.

REGIONAL PLANNING

- In 2021, the Council will release a new power plan, which will include new energy savings goals.
- Increases in the energy savings goals or changes in the composition of the energy savings goals could result in BPA having to adjust program support services and/or modify current programs.


THANK YOU
Comments and Questions?

FINANCIAL DISCLOSURE

This information was publicly available on JUNE 12, 2020, and contains information not sourced directly from BPA financial statements.