

2020-2021

Energy Efficiency

Implementation

Planning

September 2018



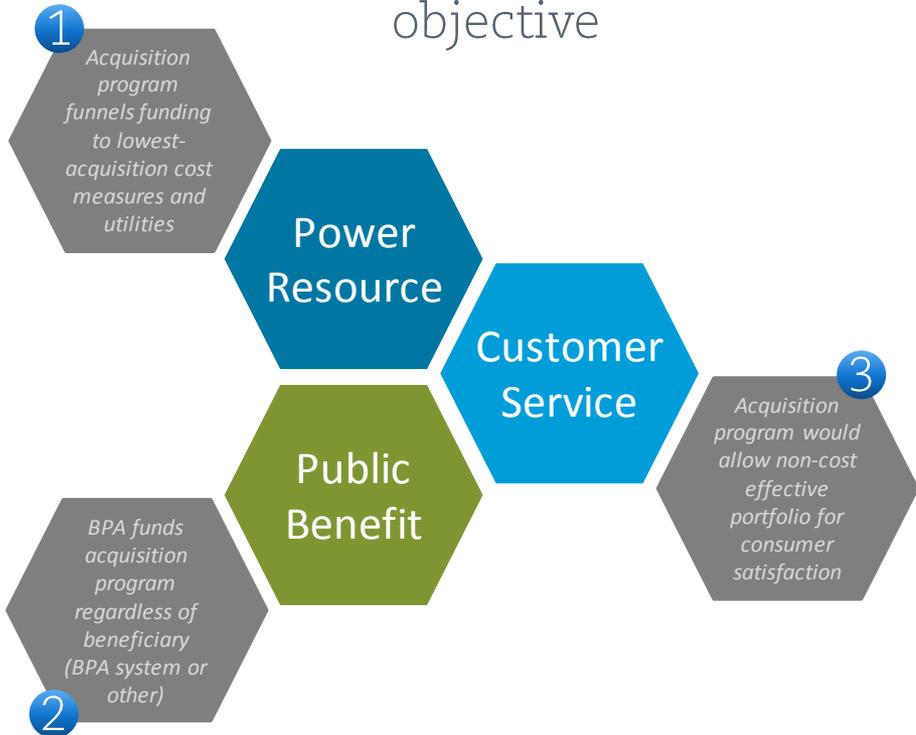
Today's Discussion

1. EE Program Implementation
2. EE as a BPA Resource
3. 2020-21 Implementation Planning

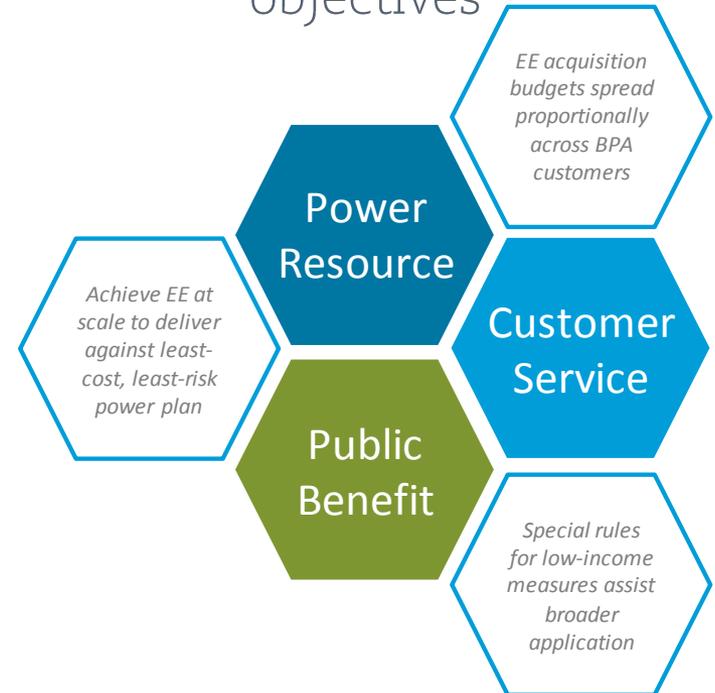


EE Program Design is a Reflection of Objectives

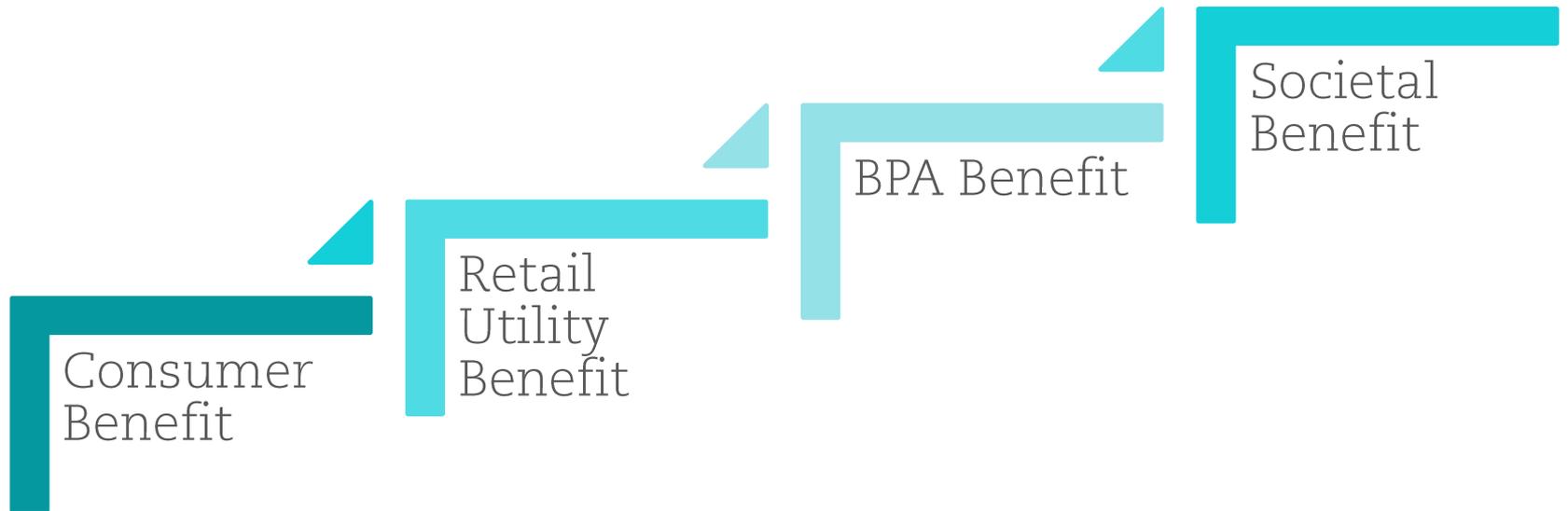
Illustrative designs – optimized for single objective



BPA's current program design – seeks balance across objectives



Balancing Objectives for Energy Efficiency



Current BPA EE Program Implementation

Our current portfolio is customer-service focused

1. **Equity based allocation** of acquisition funding: TOCA
2. **Broadest possible mix of measures** and incentives to ensure local ability to deploy program
3. **No differentiation** of measure support or BPA payment based on value to BPA system

Programmatic Savings Achievements



Public power exceeded EE Action Plan programmatic goal in 2016 and 2017

This results in fewer programmatic savings needed in 2020 and 2021 to meet the EE Action Plan goal

Current BPA EE Goal Setting

7th Power Plan

- Outlines regional EE savings targets
- BPA assumes **Public Power share** of region goal (42%)

BPA EE Action Plan

- **Roadmap** to deliver on BPA portion of regional goal
- Savings and costs, sector delivery strategies, etc.

Implementation

- Programmatic savings + market transformation savings + momentum savings
- Implement **sector delivery** strategies

BPA EE Goal Setting: 2020 and Beyond

Focus 2028

- Commitment to review of how BPA determines EE goal
- Process closed out in **October 2016**

BPA Conservation Potential Assessment

- What achievable EE is available to meet BPA's system needs (2020-2039)?
- Finalized **August 2018**

BPA Resource Program

- Uses input from EE CPA to model economic potential of EE

Goal Setting (Cont'd)

BPA Strategic Plan (2018-2023)

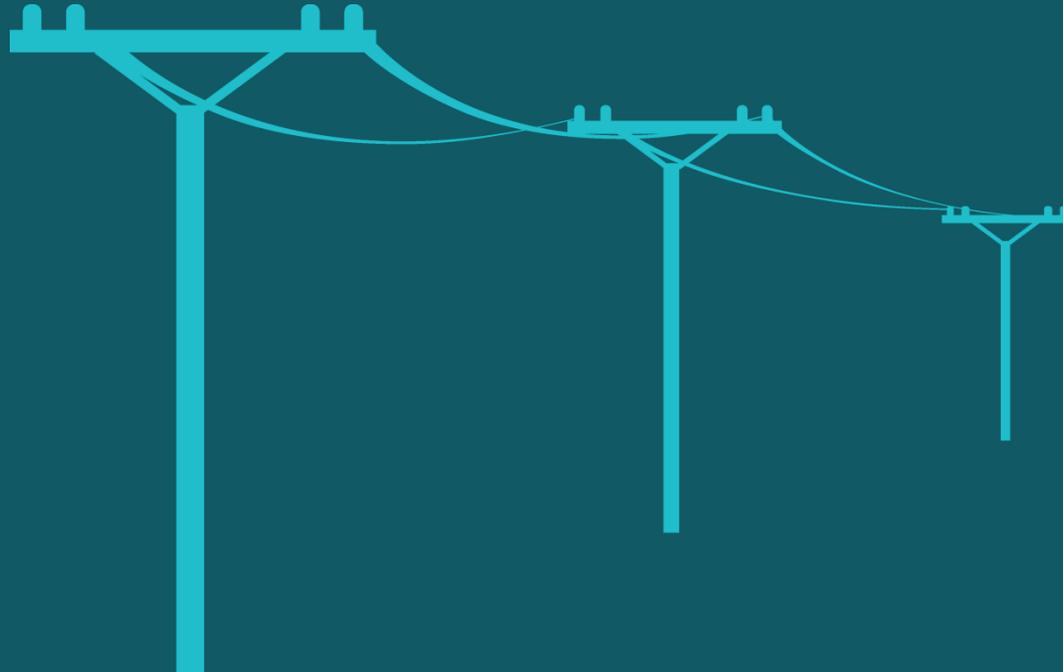
- Increased focus on EE that supports BPA's evolving power and transmission needs
- Published **January 2018**



BPA Resource Program

- Forecasts BPA's load obligations and existing resources and determines system needs
- Resources = EE, DR, wind, solar, natural gas, etc.

Where Does EE Fit In As a BPA Resource?



BPA Resource Planning

NEEDS

Begins with a forecast of BPA load obligations and existing resources and then determines needs

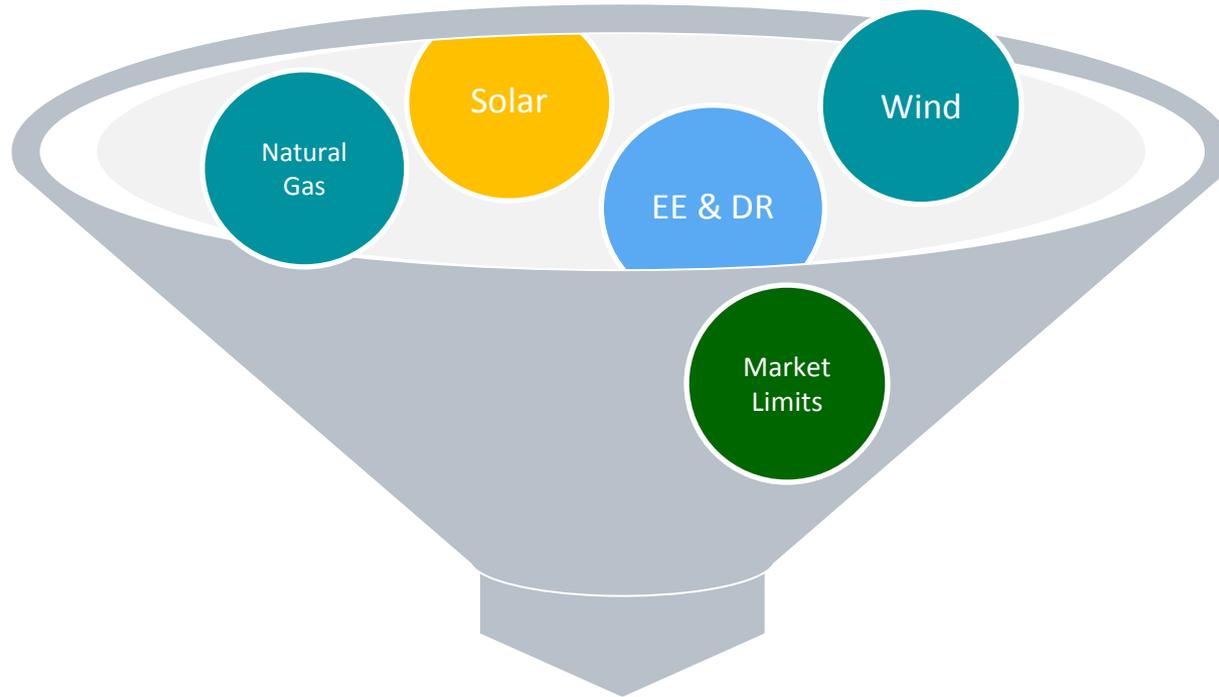
SOLUTIONS

Identifies and evaluates potential solutions to meeting the needs

STRATEGIES

Outlines potential strategies for meeting those needs

Optimization Model: BPA's Future Power Needs



Options for meeting needs

What Are BPA's Needs From EE?

**HOW
MUCH**

EE to acquire to
meet our
system needs

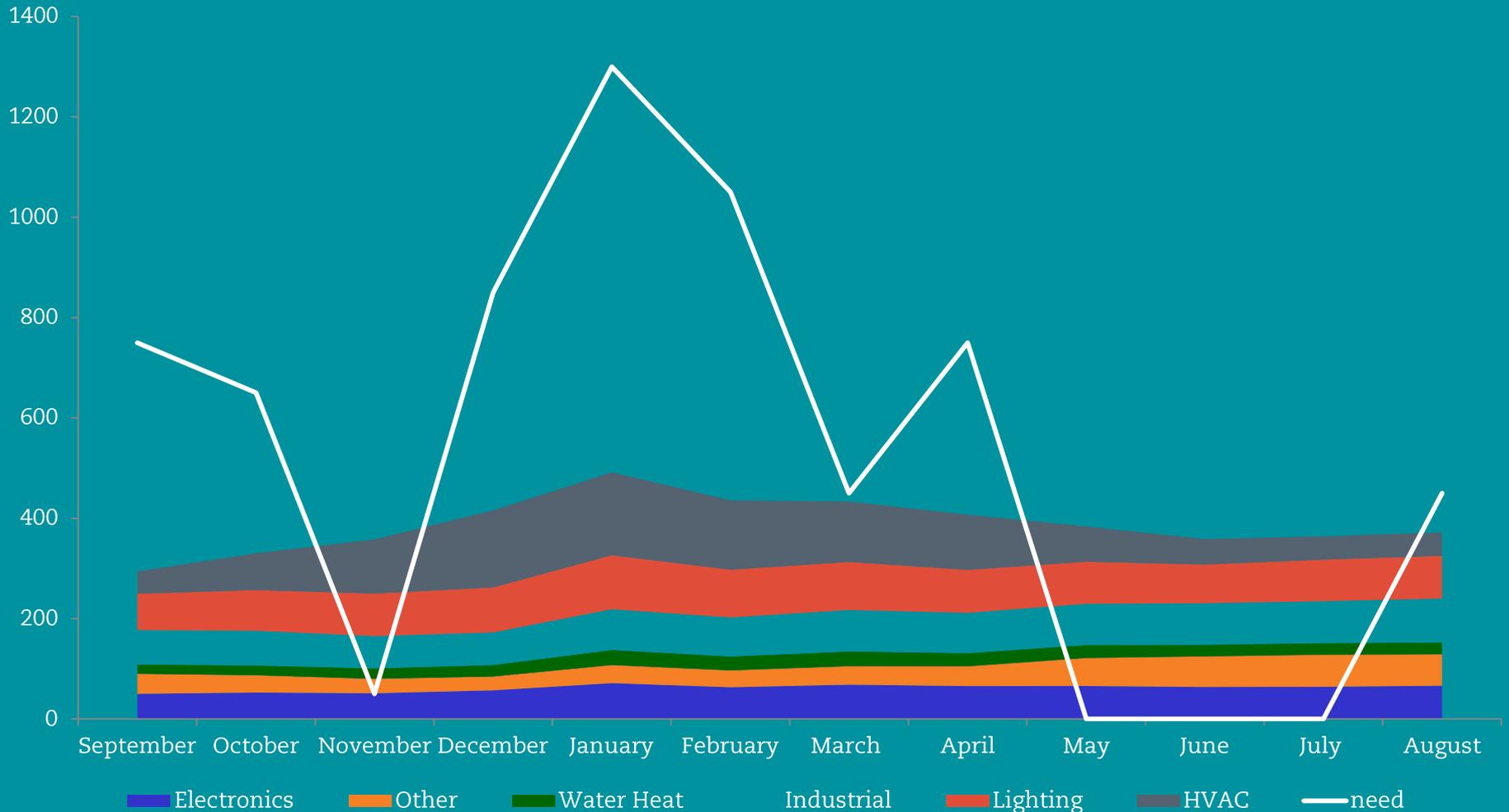
TYPE

of EE most
suited to meet
system needs

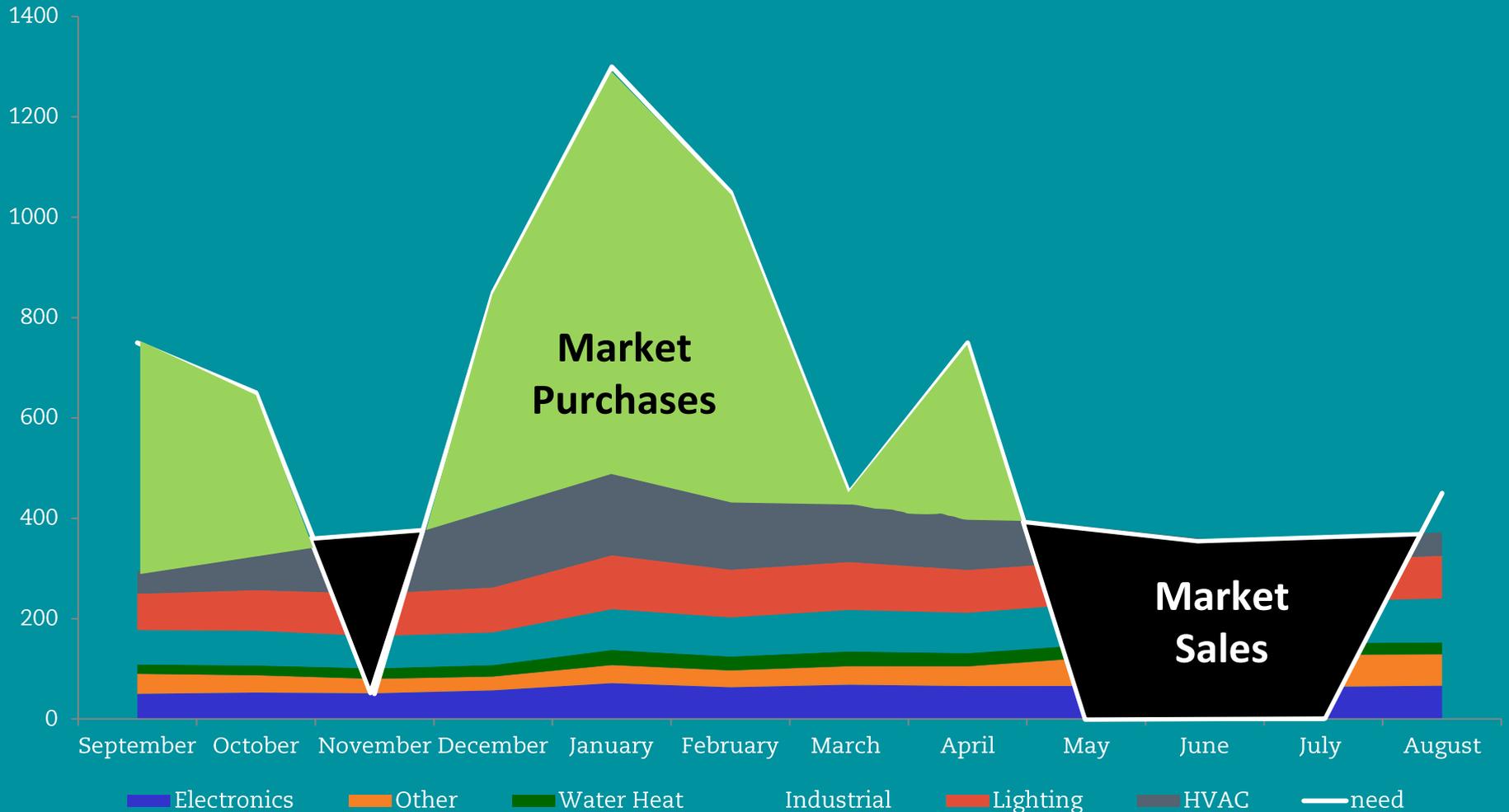
How EE helps meet our energy needs



How EE helps meet our energy needs



How EE helps meet our energy needs



2018 finding: EE remains an important part of the BPA resource mix

EE, DR and
Market
Purchases



BPA can continue to meet its obligations with a mix of EE, DR and market purchases

Least Cost
Contributor



EE is a significant component of a least-cost acquisition portfolio

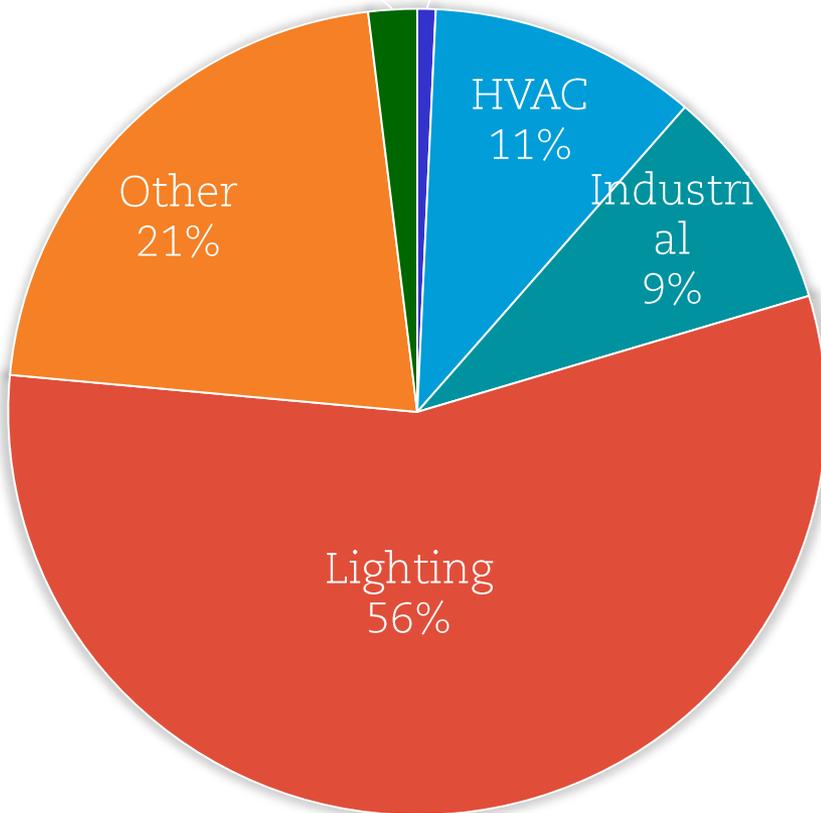
Not All
Savings Are
Equal



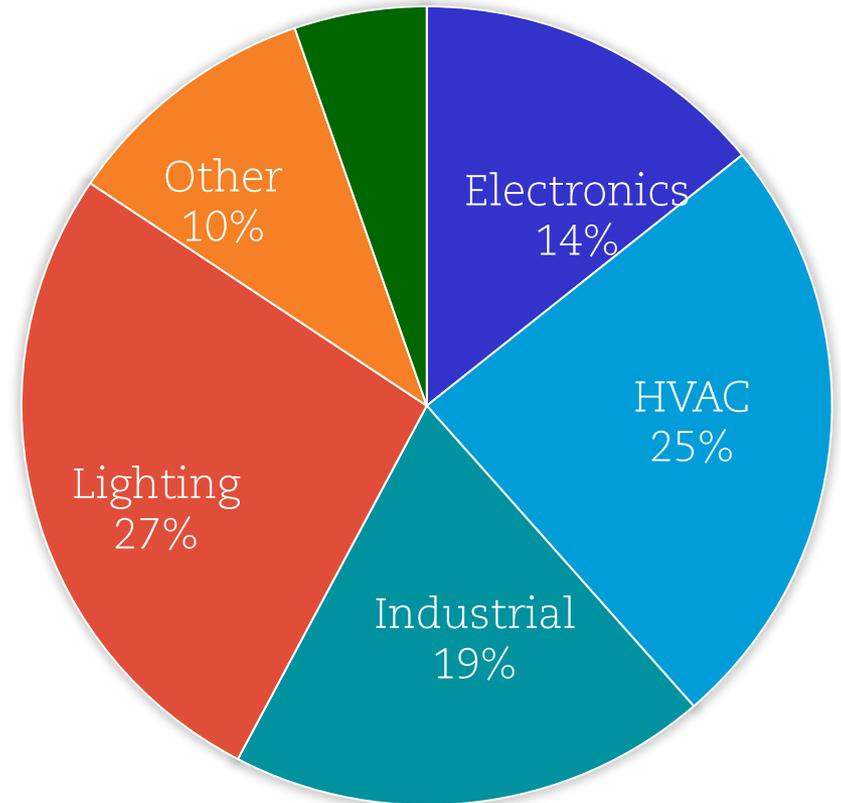
Some energy efficiency provides a greater contribution to our needs

But...the type and amount of EE requested is a little different

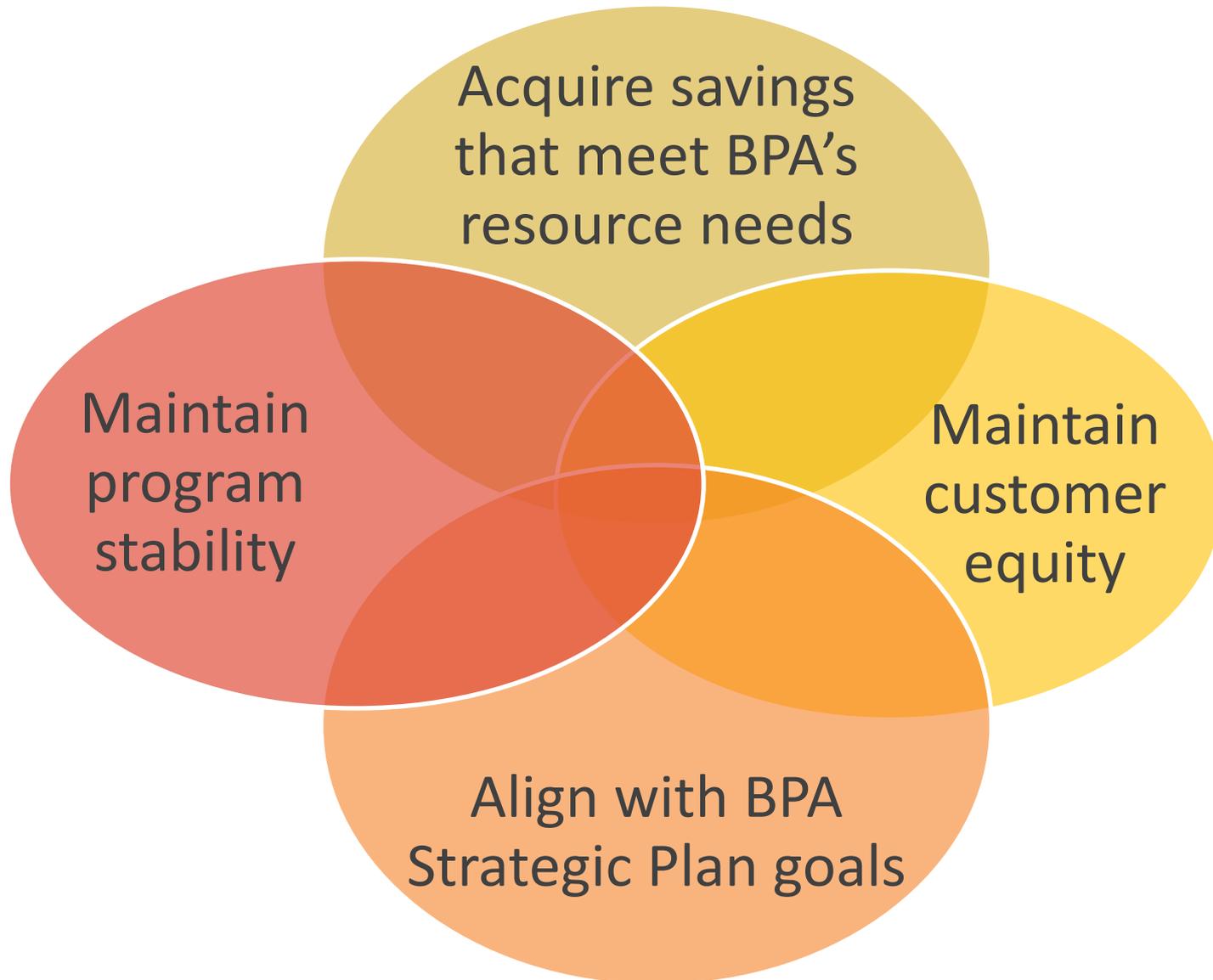
2017 Savings Achievements



Ideal EE Portfolio



Updated EE Program Principles



2020-21 EE Success Metrics

Savings

- 74-101 aMW of EE

Budget and costs

- \$134M in EEI
- Hold Program costs level

Align with resource need

- Deliver desired measures

Program stability

- Avoid significant swings over short horizons

Where Do We Go From Here?

2020-21 EE Goal Implementation

Planning: What is it?

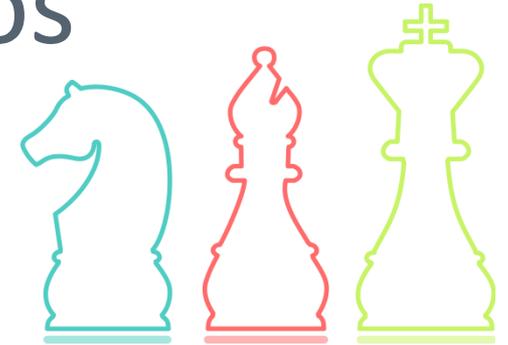


Portfolio Scenarios

Multiple scenarios and what-ifs, e.g.:

What if we delivered more desirable residential weatherization at a higher payment level?

What if we delivered as much of the Resource Program findings as feasible?



Mine data & assess for:

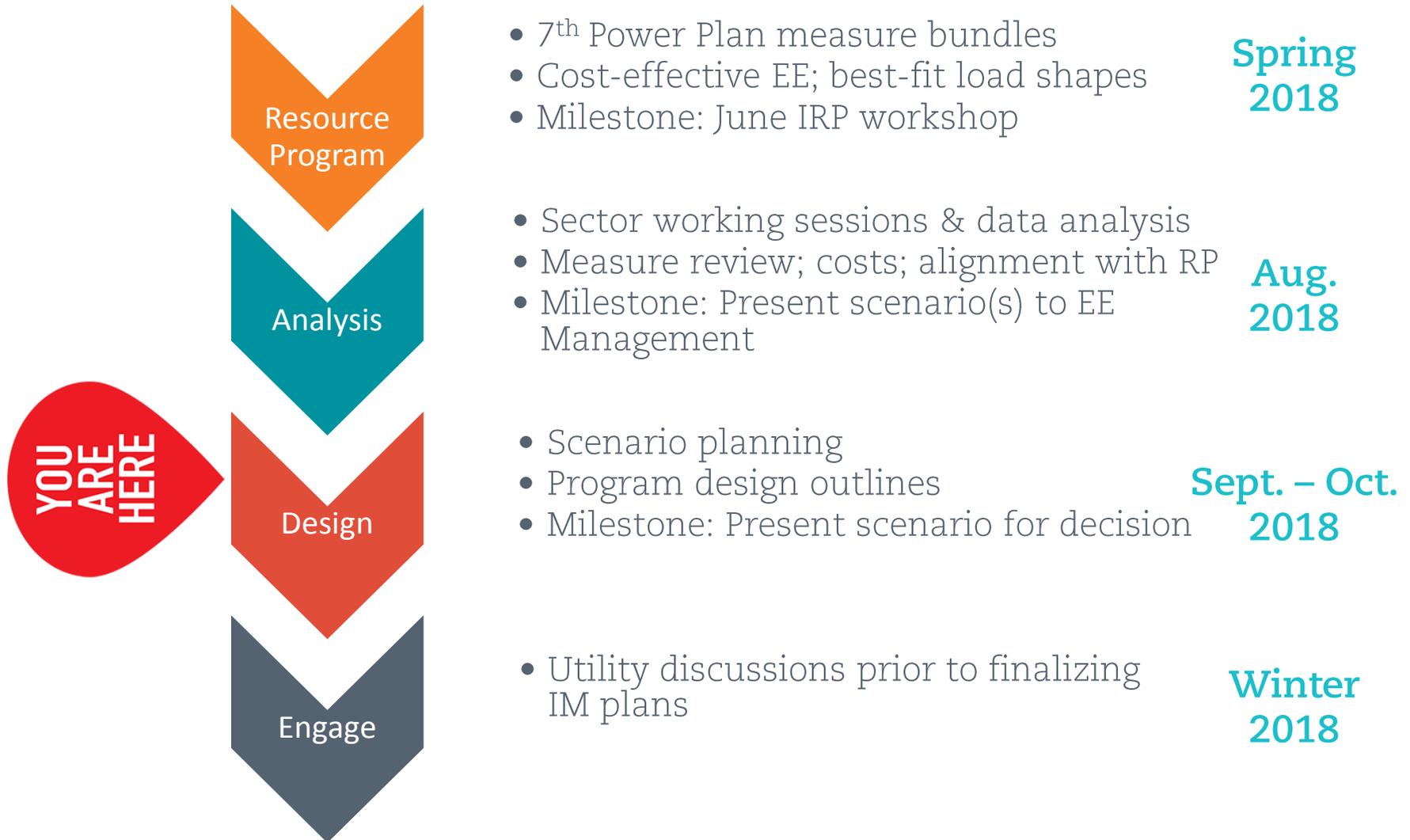
Budget busters

Tradeoffs

Unintended consequences

Opportunities to optimize

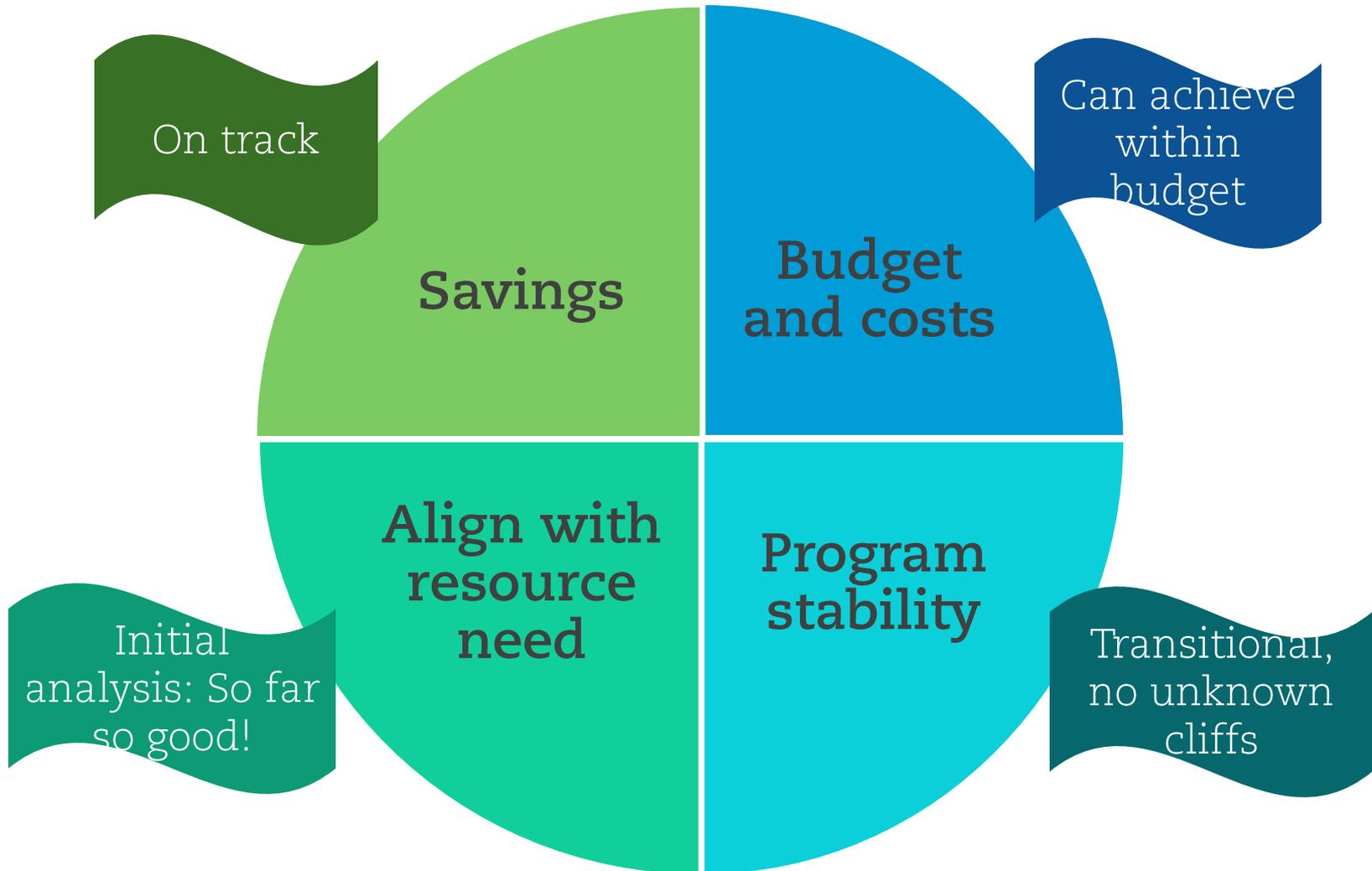
Implementation Planning Phases



Analysis & Initial Results



2020-21 Implementation Manual



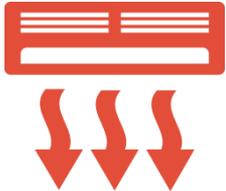
EE Program Themes



Rate of change between 2018-2019 and 2020-2021 IM savings delivery & portfolio mix is relatively small



Residential **lighting savings** is biggest driver of drop in savings between IMs (and it was already forecast)



Residential sector in a **transition period** as it seeks to replace lighting with more HVAC and weatherization (that align with BPA system needs)



All sectors are providing **beneficial EE**, and will continue to do so **within the boundaries** of program implementation budgets and EEI

Commercial

Continue Trade Ally Network;
diversify and achieve focus on HVAC

Review payment structures
(lighting, HVAC)

Industrial

Continue EnergySmart Industrial;
increase Strategic Energy
Management savings?

Continue Green Motors through
2021

Agriculture

Continue current trajectory; adapt to reality without Scientific Irrigation Scheduling (SIS)

Focus on marketing and outreach

Residential

Transitional period to a more weatherization-heavy and diversified HVAC future

HVAC strategy in place; time will tell how new measures stand up

Next steps

Wrap up analysis & program design scenarios

Continue to solicit feedback on program plans

Minimize April 2019 changes
to enable focus on 2020-21
IM planning



**Thank
you!**