

## May 2024 Quarterly Call

*May 1, 2024*



# Momentum Savings & Market Research



# Roll Call & Ice Breaker

What is your favorite  
spring flower?

# AGENDA

- Team Updates
- Progress on 6-Year Strategic Plan
- Research Updates by Market
  - Interim Model Status
  - FY24 Insights
  - FY25 Research Plans

# Team Updates

- Previous Market Research Team Structure

## Market Research Team

Bonnie Watson  
Market Research  
Team Lead



Joan Wang  
Market Research  
Lead



Juan Carlos Blacker  
Market Research  
Lead

# Team Updates

- Bonnie has been promoted to in new role as Manager of Planning, Evaluation, Research & Policy as of April 8th
- The Market Research Team Lead position is currently vacant
  - Hope to fill it soon

## Market Research Team



**Bonnie Watson**  
Manager of Planning, Evaluation  
Research and Policy

**VACANT**  
Market  
Research  
Team Lead



**Joan Wang**  
Market Research  
Lead



**Juan Carlos Blacker**  
Market Research  
Lead

# Team Updates

- Bonnie has been promoted to in new role as Manager of Planning, Evaluation, Research & Policy as of April 8th
- The Market Research Team Lead position is currently vacant
  - Hope to fill it soon
- **Joan goes on maternity leave in the summer**
- More staffing updates coming soon

## Market Research Team



Bonnie Watson  
Manager of Planning, Evaluation  
Research and Policy

VACANT  
Market  
Research  
Team Lead



Joan Wang  
Market Research  
Lead

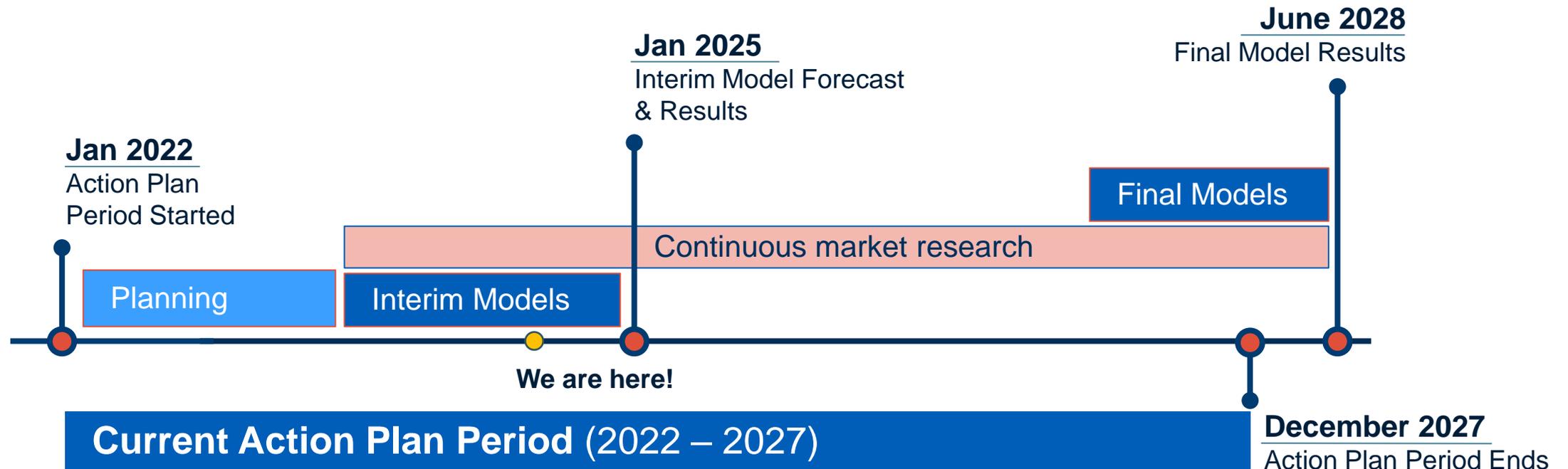


Juan Carlos Blacker  
Market Research  
Lead

# Progress on 6-Year Strategic Plan



Priority 1: Quantify and report Momentum Savings to contribute to meeting BPA's resource needs.



# Progress on 6-Year Strategic Plan

Priority 2: Generate market intelligence that helps programs and policy makers maximize impact.



Priority 3: Integrate capacity / demand flexibility metrics into market research to fully communicate the value of demand-side resources.



Priority 4: Study changes in electric load to support power planning.





# Research Updates by Market

# Residential HVAC



# Res HVAC Interim Model Status

## Model Input Highlights

- 2022 RBSA HVAC equipment & efficiency saturations
  - Comparisons to 2016 RBSA
- 2022 RBSA building envelope conditions
  - “How do we find weatherization in the data?”

## Model Results TBD

- 2022-2027 res HVAC forecast of
  - Stock characterization
  - Annual sales
  - Energy consumption
  - Total market savings and Momentum Savings

## Timeline

### Spring 2024

- Finalize model inputs

### Summer 2024

- Model calibration

### Fall 2024

- Finalize results

### Winter 2025

- Share insights

# Res HVAC Market Research

## Insights gained in FY24

- Heat pump sales surpassed gas furnace sales in 2022
- Gas furnace and CAC market share declined in 2022
- Variable speed heat pumps a third of centrally ducted heat pump sales
- Manufacturers expect to see VSHPs and MSHPs take more market share

## Upcoming research in FY25

- Analysis of 2023 HVAC sales by new metrics (HSPF2/SEER2) and others?
- Market intelligence update from smart thermostat manufacturers
- BIG market characterization refresh

# Adjustable Speed Drives



# ASD Interim Model Status

## Model Input Highlights

- Added commercial pumps and fans
- New 2019 CBSA insights on commercial ASD activity
- Pump and fan load factor analysis based on BPA and CA data

## Model Results TBD

- 2022-2027 C&I pump and fan forecast of
  - Stock characterization
  - Energy consumption
  - ASD total market savings and ASD Momentum Savings

## Timeline

### Spring 2024

- Finalize results

### Summer 2024

- On break

### Fall 2024

- Share insights

# ASD Market Research

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## Insights gained in FY24

- Load factors by sector, equipment type, and control type from metered data
- ASD-controlled systems consistently operated at lower average load factors than their non-ASD-controlled counterparts
- Drive distributors a viable channel to collect regional drive shipments data

## Upcoming research in FY25

- Inaugural drive shipments data collection from drive distributors
- BIG market characterization refresh
  - Where/how can we talk to drive, pump and fan market actors?

# Commercial HVAC Market Research

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# Comm HVAC Interim Model Status

## Model Input Highlights

- First market model for commercial HVAC
- Finalized inputs with Expert Panel feedback
- In process of conducting QC to ensure accuracy

## Model Results TBD

- 2022-2027 Commercial HVAC forecast of
  - HVAC stock in new construction and large retrofit projects
  - Energy consumption for permitted construction
  - Total market savings and Momentum Savings for this segment

## Timeline

### Spring 2024

- Finalize model calibrations, QC, and testing

### Summer 2024

- Finalize Results

### Early Fall 2024

- Share insights

# Commercial HVAC Market Research

## Insights gained in FY24

- Created a building simulation tool for the development of UECs and proper market analysis
- Visibility on impact of different HVAC technologies in our region
- Importance of ERVs for DHP and VRF systems
  - They must be paired to have significant energy savings.

## Upcoming research in FY25

- In-depth analysis of HVAC market, market research, energy savings potential, and future data needs
- Collection and analysis of distributor sales data
- Participate in CBSA research

# Nonresidential Lighting Market Research

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# NRL Interim Model Status

## Model Input Highlights

- All inputs have been developed with Expert Panel feedback
- In process of conducting QC to ensure accuracy
- Includes calibrations based on COVID 19 impacts

## Model Results TBD

- 2022-2027 nonresidential lighting forecast of
  - Stock characterization
  - Energy consumption
  - NRL total market savings and Momentum Savings

## Timeline

### Spring 2024

- Finalize model QC, calibrations, and testing

### Summer 2024

- Finalize results
- Analyze 2023 sales data

### Fall 2024

- Share insights

# NRL Market Research

## Insights gained in FY24

- Impacts of COVID-19 on lighting use in commercial buildings and analysis of how those effects are expected to persist
- Expected change on lighting product efficacy over the next five years
- Data availability is currently is not robust enough to include controls in the NRL market lighting model

## Upcoming research in FY25

- Collect and analyze sales data from distributors
- Monitor impacts of state and federal regulations on sale and use of legacy lighting technologies
- Conduct interviews on market trends with Manufacturers at LightFair 2025
- Monitor the controls sales, use and data availability

# Thank You for Attending

August 2024 Quarterly Call is cancelled, see you in November!

## Contact

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**Bonnie Watson | Joan Wang | Juan Carlos Blacker**

Market Research Team, Energy Efficiency, BPA

[bfwatson@bpa.gov](mailto:bfwatson@bpa.gov) | [jjwang@bpa.gov](mailto:jjwang@bpa.gov) | [jcblacker@bpa.gov](mailto:jcblacker@bpa.gov)

<https://www.bpa.gov/energy-and-services/efficiency/market-research-and-momentum-savings>

