

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

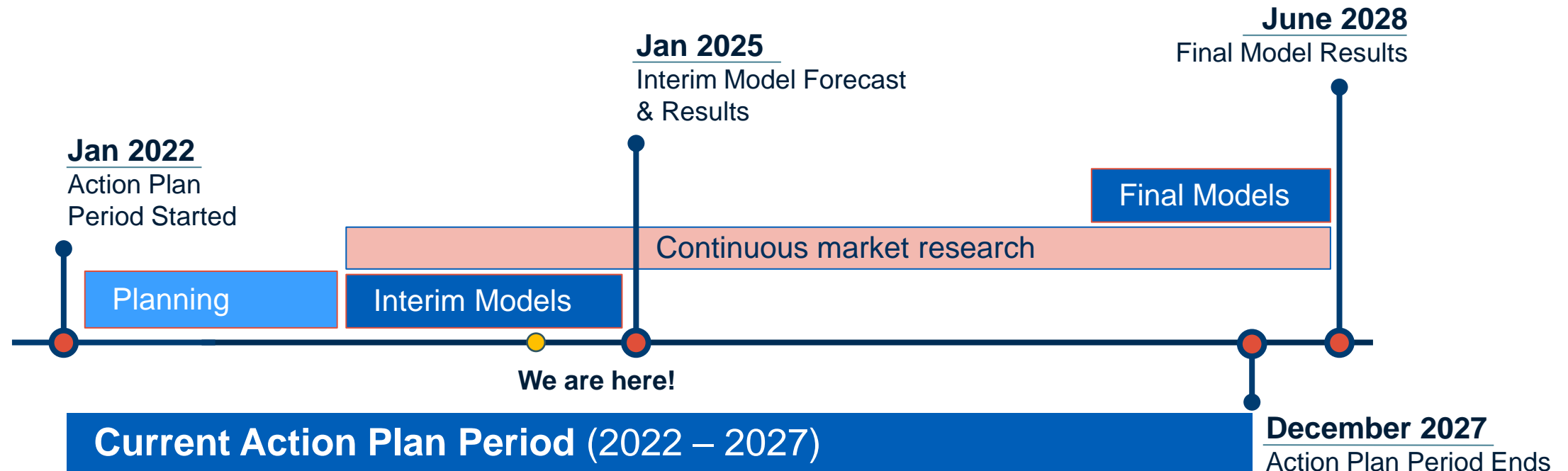


Juan Carlos Blacker
Market Research
Lead

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

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



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

