



2022 Plan Considerations: Pending Impacts from 2021 Evaluation, Measurement and Verification (EM&V)

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Outline

Review of Factors (Core & Variable) that inform developing 2022 Plan, and where EM&V fits in

Review 2022 Timeline

Key Studies for 2022 Annual Plan

Residential and C&I Study Spotlights

Q&A



2022 Planning - Core Factors

1. Targets and resulting 3-Year Plan
2. LCP Standards
3. Previous year's results - final due May 1, 2021
4. Current year's implementation experience, including "pilots"
- 5. Program evaluation, measurement and verification (EM&V)**
6. Avoided Energy Supply Component Study (AESC) – final results pending soon on triennial process last updated in 2018



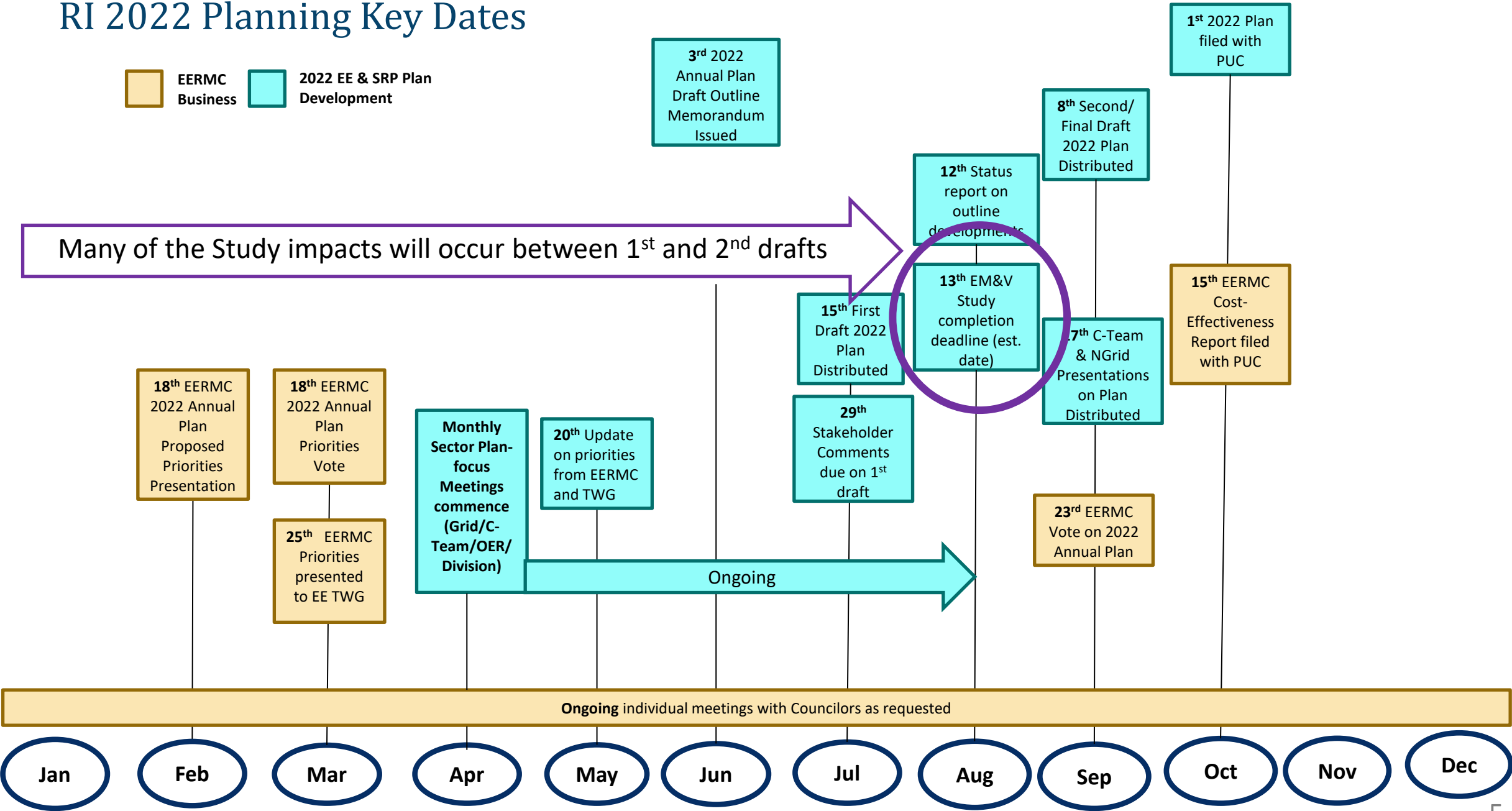
2022 Planning - Variable Factors

1. EERMC & other Stakeholder Priority lists
2. “Innovation” - Evolving markets & new and/or improved technologies
3. Regulatory: Public Utilities Commission
4. State & local policy objectives
5. Other state agencies and quasi-agencies
6. Legislative

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RI 2022 Planning Key Dates

EERMC Business 2022 EE & SRP Plan Development





Key Studies for 2022 Annual Plan

Sector	Study	Fuel(s)	Description	Application
Res	Residential Home Energy Monitoring (Sense) Demonstration	Elec	Assess insights pertaining to customer interaction with Sense device	TBD
Res	Appliance Recycling Impact Factor Update	Elec	Determine savings and optimal incentives for Appliance Recycling Program	Inform gross and net savings and incentives in 2022 Plan
C&I	Impact Evaluation of PY2019 Upstream Lighting Program	Elec	Determine savings estimates for a sample of projects through site-specific inspection, metering, and analysis	Inform realization rates in 2022 Plan
C&I	Impact Evaluation of PY2019 Custom Gas Installations	Gas		
C&I	Impact Evaluation of PY2018 Custom Electric Installations	Elec		
C&I	Impact Evaluation of PY2019 Custom Electric Installations	Elec		
C&I	C&I ISP and Baseline	Elec/Gas	Assess industry standard practice (ISP) and measure baselines issues to account for Rhode Island building codes and markets	TBD
Cross	Legislated Measurement & Verification Study	Elec/Gas	Verify claimed energy savings from the Company's energy efficiency programs, review Company's evaluation process	TBD
Cross	Heat Pump Market Assessment	Elec/Gas	Assess current status of the heat pump market and potential for future growth of heat pumps	TBD
Cross	Gas Peak Demand Savings Evaluation	Gas	Determine the percentage of gas energy savings that occur during peak(s) due to energy efficiency activities	TBD
Cross	Workforce Associated with Rhode Island Energy Efficiency Programs	Elec/Gas	Identify the workforce associated with National Grid's energy efficiency programs and services delivered in Rhode Island	Informs 2020 Year End Report



Residential Study Spotlight

Appliance Recycling

Main Objectives

- Estimate net and gross savings for refrigerators and freezers recycled in Rhode Island in 2019 and 2020.
- Explore optimal incentive levels and examine the importance of incentives to program participation (coordinated with CT)

Expected Timeline

- Feb 2021 – Sep 2021

Primary Tasks

- Review program data
- Analyze gross and net savings
- Analyze Incentive level
 - including interviews with program stakeholders and participant surveys
- Report results & recommendations



C&I Study Spotlight

2019 Custom Gas

Main Objective

- Verify energy savings for sampled Custom Gas projects through site-specific inspections, end use monitoring, and analysis.

Expected Timeline

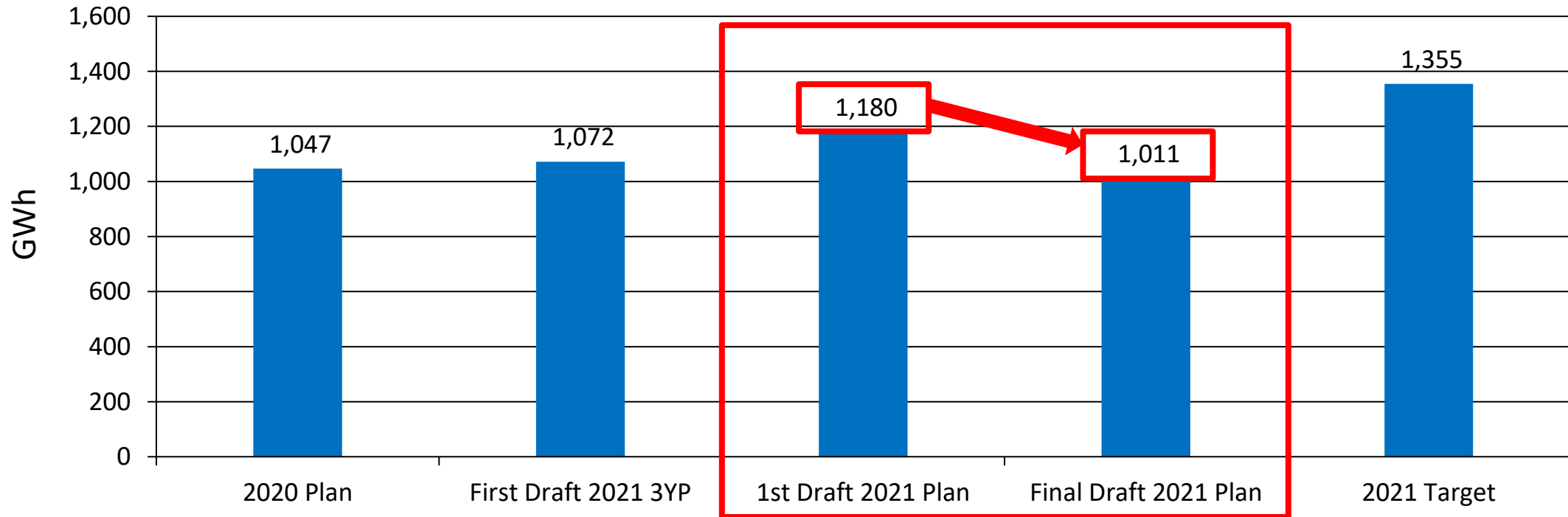
- Oct 2020 – Aug 2021

Primary Tasks

- Review population data, sample design, and work plan
- Review savings calculations
- M&V plan development
- Data collection through observation, metering, and building automation system data
 - In some cases, done virtually w/ limited metering to accommodate pandemic
- Site-level analysis and reporting
- Report results and recommendations
- Combined with results from PY2017 and PY2018



2021 Annual Plan EM&V C&I Impact



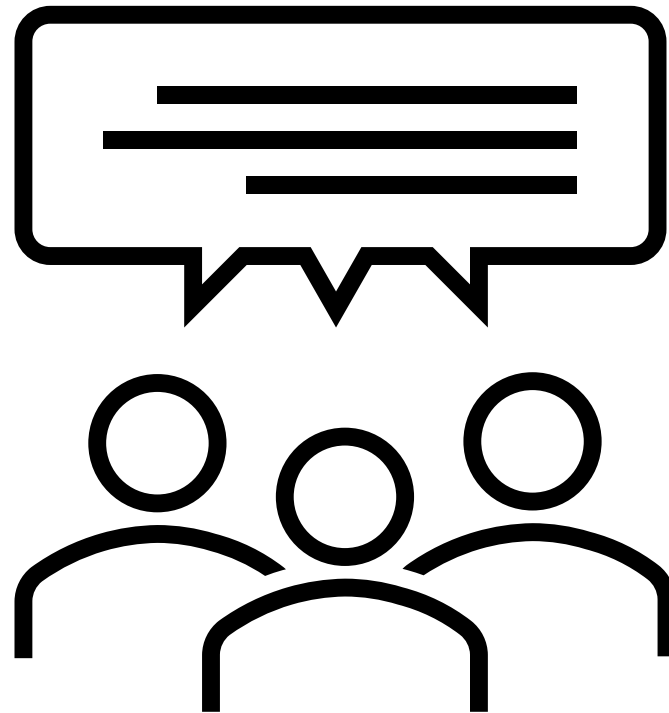
Key Points

Recall: Lifetime electric savings decreased from 1st draft to 2nd draft 2021 Plan

Large portion of decrease due to **EM&V changes** in net claimable lighting savings



Discussion / Questions?





Appendix – EMV background

- What is EM&V?
- Why EM&V?
- Types of EM&V
- EM&V Accountability



What is EM&V?

EM&V, required in LCP Standards, serves a range of purposes in RI:

- **Verify savings**, including appropriate analysis of customer usage
- Facilitate participation in ISO-NE's **forward capacity market**
- Address ongoing **program design** and effectiveness
- Coordinate with **pilots, demonstrations, and assessments**
- Methodologies to **claim savings from market effects**, among others
- Support regional and other **cooperative EM&V efforts**
- Conduct longer-term studies to **assess programs over time**



Why EM&V?

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- Policy makers and legislation require that energy efficiency programs be proven cost-effective.
 - EM&V serves three critical objectives:
 - 1. Accountability of the impacts**
 - *Did the program deliver its estimated benefits?*
 - 2. Risk management**
 - *How certain are these savings?*
 - 3. Continuous improvement**
 - *What can be done to improve program performance in the future?*



Types of EM&V

Impact Evaluations – Assess outcomes attributable to an energy efficiency program

Savings verification

Program performance risk management

Process Evaluations – Assess program operations to identify and recommend areas of improvement

Continuously seeking opportunities for improvement

Market Evaluations – Assess broad aspects of the marketplace with respect to energy efficiency

May include outcomes from either of the above



EM&V Accountability

Evaluations conducted by **independent third-party evaluators**

Managed by National Grid with **oversight from the EERMC and OER**

All evaluations are **filed with the PUC** and publicly accessible

Res and C&I EM&V teams have **monthly meetings to review all studies**