

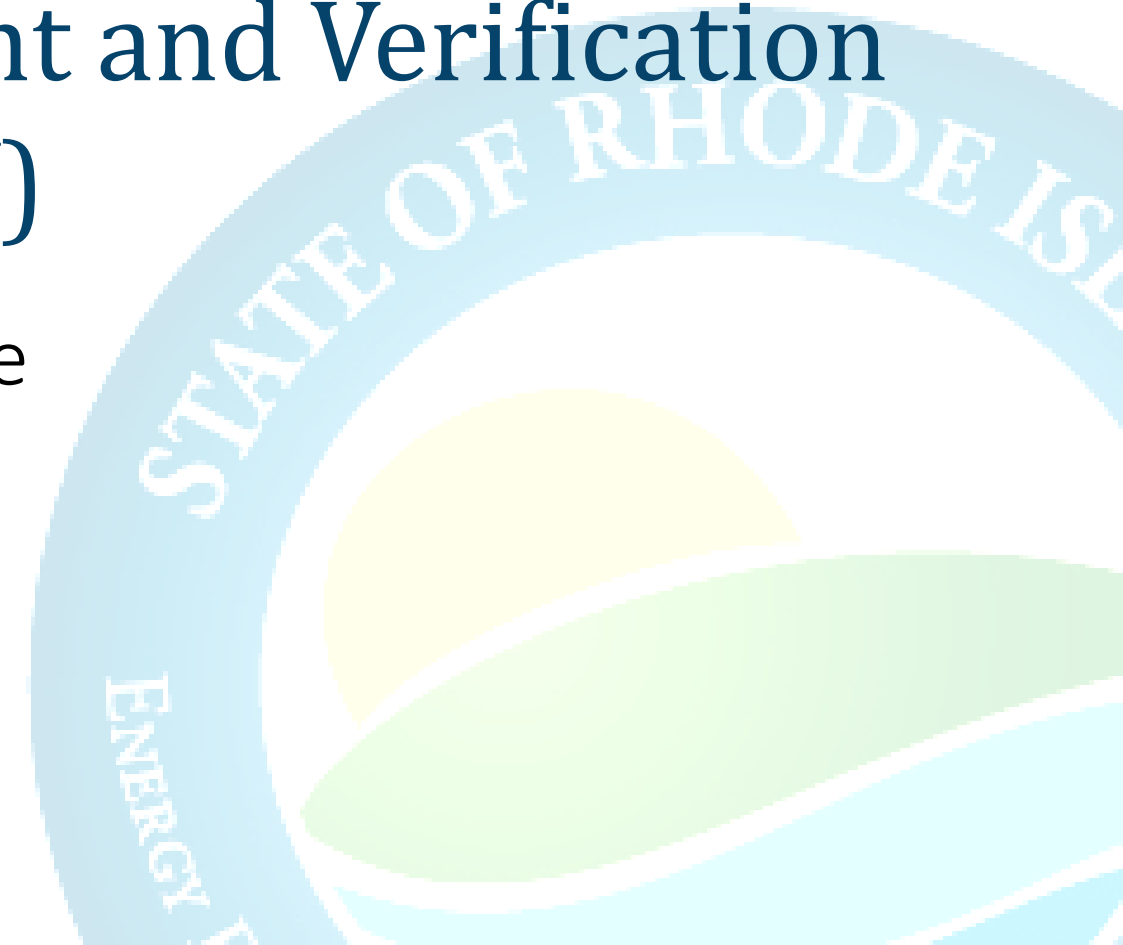


Evaluation, Measurement and Verification (EM&V)

Q1 Update

Presented By: Mark Kravatz

Date: March 21, 2019





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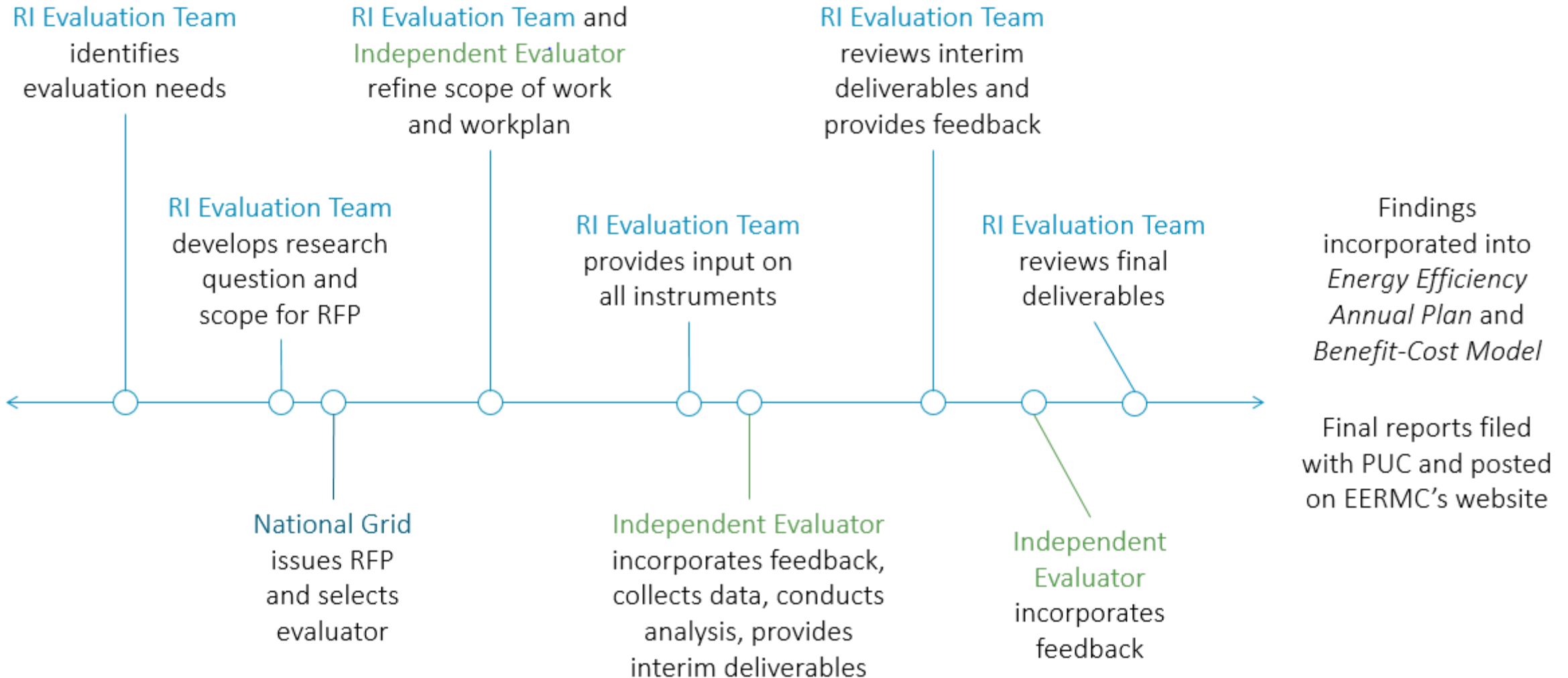
NAVIGANT

ILLUME





The Process





2019 Studies - Residential

- Process Evaluation of Income Eligible Single Family Program (RI-19-RX-IESF)
- Lighting Market Assessment: 2017/18 Sales Data Analysis (RI-19-RE-UpstrLight1)
- Lighting Market Assessment: 2018/19 Shelf Stocking Analysis (RI-19-RE-UpstrLight2)
- Residential Appliance Recycling Savings Update (RI-19-RE- AppRecycle)
- Residential Home Energy Monitoring (Sense) Demonstration (RI-19-RE- HEM)





Residential Highlight

Process Evaluation - Income Eligible Services

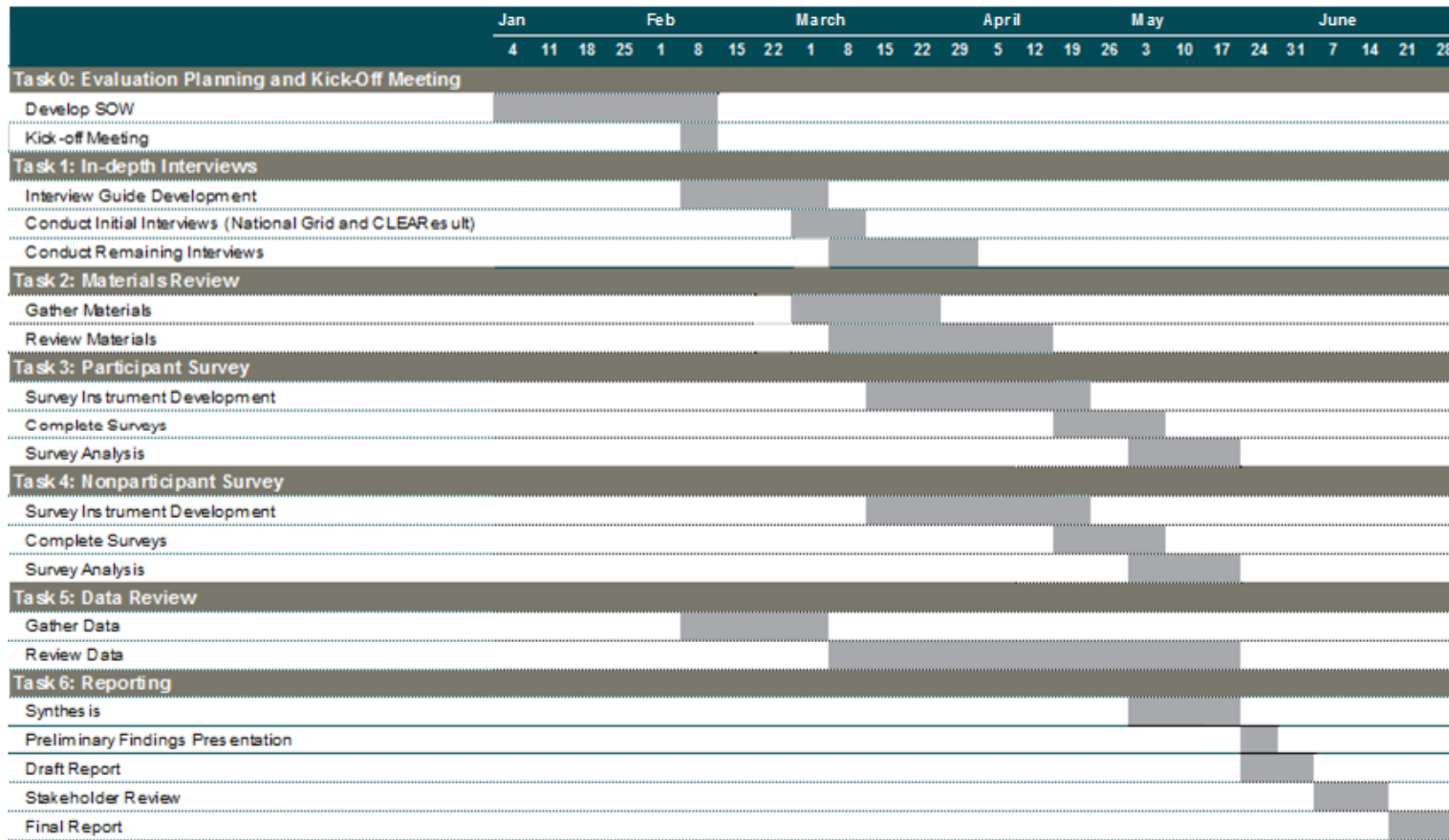
- About
 - Assess National Grid’s delivery of the IES Program
- Goals/Objectives
 - Identify elements of IES that are functioning as intended and any aspects that are not currently being delivered optimally or as designed including:
 - Inefficiencies in the current delivery, Barriers to participation, or gaps in service
- Primary Tasks
 - Stakeholder Interviews
 - Materials Review
 - Participant Surveys
 - Nonparticipant Surveys
 - Data Review
 - Reporting





Residential Highlight Income Eligible Services

- Timeline





2019 Studies – Commercial & Industrial

- Impact Evaluation of PY2016 Custom Gas Installations (RI-18-CG-CustGas)
- Impact Evaluation of PY2017 Custom Gas Installations (RI-19-CG-CustGas)
- Impact Evaluation of PY2016 Custom Electric Installations (RI-18-CE-CustElec)
- Impact Evaluation of PY2017 Custom Electric Installations (RI-19-CE-CustElec)
- Impact Evaluation of PY20xx Upstream Lighting Program (RI-19-CE-UpstrLight)
- Prescriptive Gas & Electric Measures (RI-19-CX-Presc)





Commercial & Industrial Highlight Impact Evaluation – Custom Gas 2017

About: Verification or re-estimation of energy savings for sampled Custom Gas projects through site-specific inspections, end use monitoring, and analysis.

Primary Tasks

- Population data review, sample design, and work plan
- Review of savings calculations
- M&V plan development
- Data collection through observation, metering, and building automation system data
- Site-level analysis and reporting
- Incorporate MA results and extrapolate results to population
- Reporting of results and recommendations





Commercial & Industrial Highlight Impact Evaluation – Custom Gas 2017

Timeline

Task#	Task Name	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19
Task 1	Sample Design							
Task 2	Work Plan							
Task 3	File Review, M&V Plans and Site Visits							
Task 4	Updates, Analyses, Reporting and QC							
Task 5	Expansion & Program Report*							
Task 6	PM & Other expenses							





2019 Studies – Cross Cutting

Piggybacking Diagnostic Study (*Continued from 2018*) (RI-18-XX-Piggybacking)

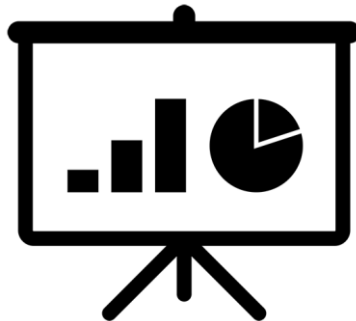
Primary Data Collection for Potential Study (RI-19-XX-DataCollect)

Heat Pump Market Assessment (RI-19-XE-Hpmarket)

Gas Demand Response Pilot Evaluation Study (RI-19-CG-GasDR)

Legislated M&V Study (RI-19-XX-M&Vlegislation)

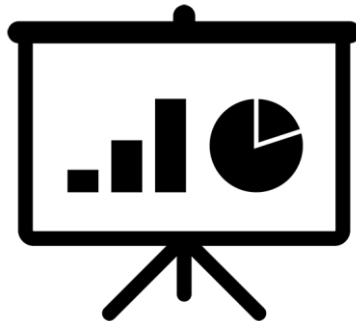
Jobs study (RI-19-XX-Jobs)





Cross-Cutting Highlight Market Assessment – Heat Pumps

- About
 - Examine the potential for numbers of homes and small businesses to install heat pumps (focusing on cold climate heat pumps) in Rhode Island.
- Goals/Objectives
 - The study will determine:
 - Market penetration and status of HP installations in Rhode Island
 - How many systems are currently used as a primary heating source to displace a significant amount of electricity or fossil heat
 - Cost and savings for purchasing heat pumps for various scenarios
 - Cost-effectiveness of HPs for displacing electric heat and delivered fuels for space heating, as well as any projected change in use for cooling.
 - Potential for future growth (units per year) of HPs for primary heating
 - Suggestions for specific program strategies to increase deployment

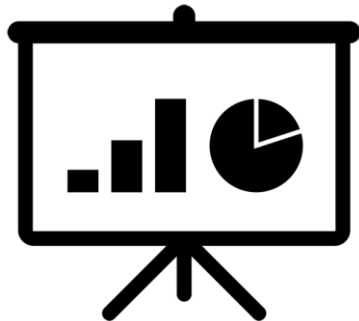




Cross-Cutting Highlight Market Assessment – Heat Pumps

- Tasks
 - Evaluate the current status of the HP market in Rhode Island
 - Develop cost and savings data for typical heat pump installation scenarios
 - Conduct a Cost Effectiveness Analysis
 - Potential for installations in homes and business in the next 5 years

- Timeline
 - Feb 2019 – July 2019





Cross-Cutting Highlight Jobs Study

- About
 - The Company is required to provide a count of direct full-time equivalent (FTE) workers, by targeted market segments.
 - This year's report will include a new section
 - A forward looking analysis of likely changes and trends in worker types, roles, skill sets, and numbers
- Key Tasks
 - Identify the types of businesses and organizations directly supported by National Grid energy efficiency programs
 - Produce an accurate estimate of the total number and general type of FTE employees
 - Prepare a new forward-looking forecast of employment trends for FTE workers
 - Provide a final report
- Timeline
 - April, 2019

