



STATE OF RHODE ISLAND

**ENERGY EFFICIENCY &
RESOURCE MANAGEMENT COUNCIL**

CONSULTANT TEAM

Market Potential Study Update

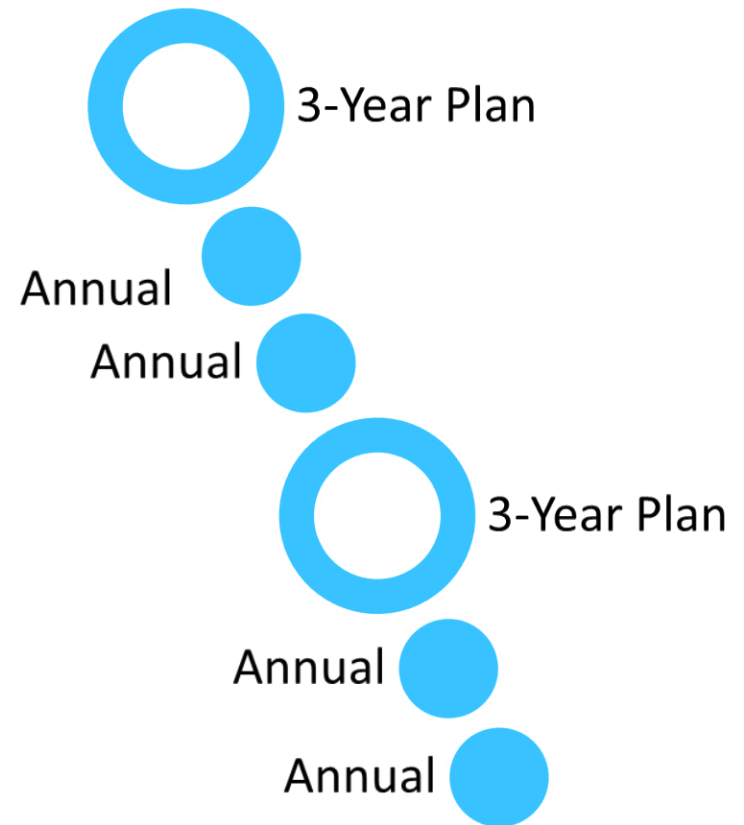
Presented By: EERMC Consultant Team

Date: November 21, 2019



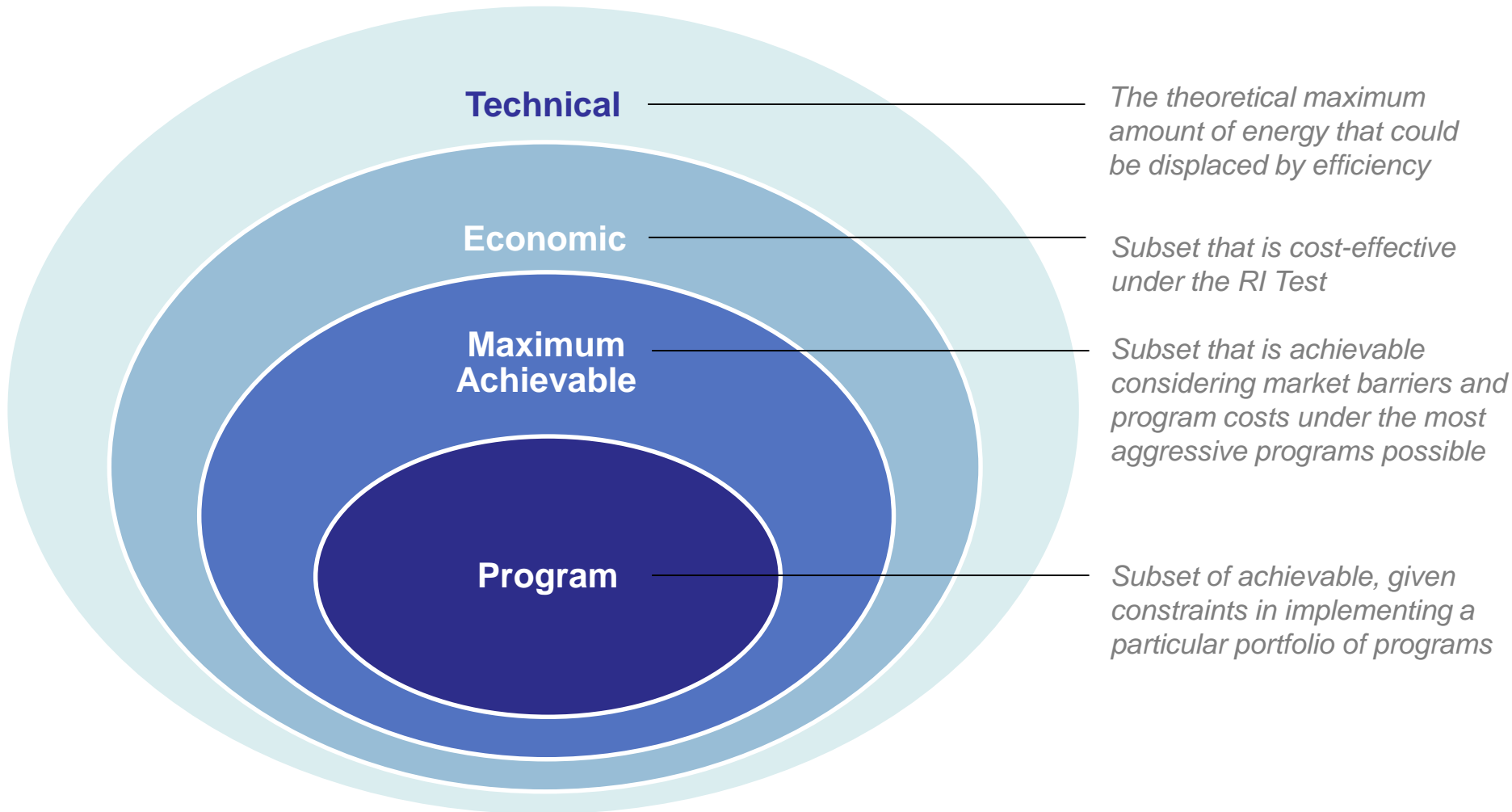
Potential Study Motivation

- Next EE three-year plan developed in 2020
 - EE targets need PUC approval in early 2020
- How are targets set?
 - Energy efficiency potential studies
 - Other sources & analysis
- Update RI potential
 - Last potential study completed in 2010





Potential Study -- WHAT





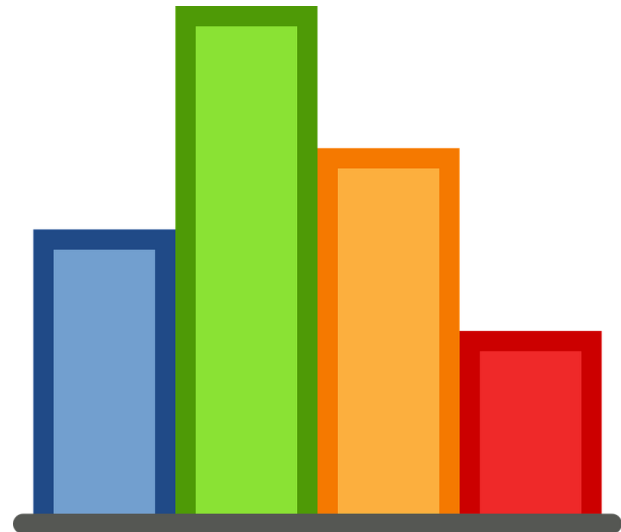
Potential Study -- WHAT

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- A comprehensive analysis of the technical, economic & achievable savings potential in RI for the period of 2021-2026, covering:
 - Electric
 - Natural gas
 - Delivered fuels (oil & propane)
 - Demand response
 - Combined heat & power
 - Behind-the-meter renewables



Potential Study -- WHY

- Compliance with LCP law to quantify potential future energy efficiency savings
- Account for realistic energy efficiency program and policy implementation
- Evaluate efficiency relative to supply side resources
- Formulate high-level program design, including savings targets and timelines
- Consider cost-effectiveness





Potential Study -- WHO

- Market Potential Study Management Team
 - EERMC C-Team, OER, Division
- Potential Study Implementation Vendor
 - Dunsky Energy Consulting
- Data Collection and Support
 - National Grid
- Stakeholders
 - Technical Working Group, public comment





Potential Study -- WHERE

Rhode Island, of course!

- Study is driven by National Grid data
- Will include results for Pascoag Utility District and Block Island Power Company
 - Scaled by customer count from National Grid results





Potential Study -- WHEN

Progress to Date



Gather
Data
Sources



Develop
Baseline
Scenario



Build
Measure
List

	2019					2020				
	August	September	October	November	December	January	February	March	April	May+
Check-in meetings (twice/month)	M	M	M	M	M	M	M	M	M	M
Task 1- Identify data sources and collect input data	Task 1									
Kick-Off Meeting with MPS Management Team		M								
Data Requests to Utilities, OER, EERMC	D		D							
Workplan updated for Review			D							
Compile Market Baseline Data										
Task 2- Estimate net effects of factors affecting baselines	Task 2									
Prepare Sales Baselines					D					
Identify applicable Codes and Standards Changes in Study Period										
Memo outlining baselines and exogenous factors			D							
Task 3- Build measure list and gather data	Task 3									
Provide Measure List to MPR Management Team		D								
Gather Input Studies and RI TRM										
Characterize measures (EE, DR, Fuel Switching)										
Task 4- Estimate potential savings	Task 4									
Characterize Programs for Model					D					
Finalize EE/HE Scenarios for Achievable Potential					D					
Finalize DR Scenarios for Achievable Potential						D				
Adapt Model for RI										
Prepare Utility Load Curve Analysis (DR Constraints)										
Load Model with Inputs and perform QA/QC:										
Calculate Technical, Economic and Max + Prog. Ach. Potentials										
Prepare Interim (Draft) Results										
Task 5- Estimate CHP potential	Task 5									
Characterize CHP measures and finalize scenarios					D					
Model CHP potential								D		
Task 6- Estimate potential for BTM, RE & DG technologies	Task 6									
Gather Solar and DG data										
Finalize DG scenarios and sensitivities						D				
Characterize Markets and Measures								D		
Reporting	Reporting									
Draft results Presentation + Excel Tables (in-person)							D/M			
Incorporate MPS Management Team and Stakeholder feedback										
Prepare Final Results (ppt)									D	
Prepare Final Report										D
Provide Model Inputs and Data										D
Graphical Executive Summary										D

D = Deliverable **M** = Meeting



Potential Study -- WHEN

Key Future Dates

Deliverables and milestones	Responsible	Target Delivery date
REPORTING		
Draft results (ppt)	Dunsky	January 31, 2020*
Consolidated feedback on draft results (10 bus. days)	MPSMT	February 14, 2020
Final Results (ppt)	Dunsky	March 13, 2020
Consolidated feedback on final results (8 bus. days)	MPSMT	March 25, 2020
Draft Report (doc)	Dunsky	April 17, 2020*
Consolidated feedback on draft report (10 bus. days)	MSPMT	May 1, 2020
Final Report (doc)	Dunsky	May 15, 2020*
Draft and Final Graphical Executive Summary	Dunsky	TBD



Applying Potential Study Results

Key Outcomes

-
- Ultimately at the Council's discretion
 - Key quantitative reference point
 - Two most policy-relevant scenarios
 - **Program Achievable**
 - Constrained by historical program savings
 - Implicitly constrained by historical budget levels
 - **Maximum Achievable**
 - Significantly higher savings than Program Achievable
 - Still subject to realistic modeling constraints
 - May take time to ramp programs toward this level
 - More to come on this topic as study progresses...



Applying Potential Study Results

Key Future Questions

Savings Targets: Balancing program and max achievable? Factoring in “prudent & reliable”?

Savings Timeframe: Lifetime or annual?

Savings Units: kWh/therms or MMBtus?



QUESTIONS?

