



# Rhode Island Power Sector Transformation Initiative Recommendations

Summary of Draft Report to Governor Raimondo

Stakeholder Meeting  
October 23, 2017

# Outline

- Recommendations to Modernize the Utility Business Model
- Recommendations to Advance Grid Connectivity & Meter Functionality
- Recommendations to Enhance Distribution System Planning
- Recommendations to Pursue Beneficial Electrification
- Implementation Vehicles
- Next Steps

# Modernize the Utility Business Model

# Modernize the Utility Business Model

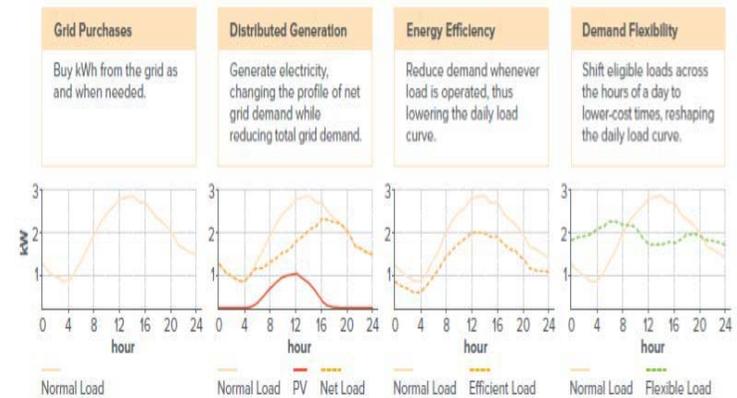
## #1 Create a Multi-Year Plan and Budget

Review rate cases as a **multi-year rate plan** with a **rate cap** that incents cost savings and **shares savings** with ratepayers.

Traditional Utility Economics Do Not Align with Distributed Energy Technologies

FIGURE ES1

GRID PURCHASES, DISTRIBUTED GENERATION, ENERGY EFFICIENCY, AND DEMAND FLEXIBILITY COMPARED



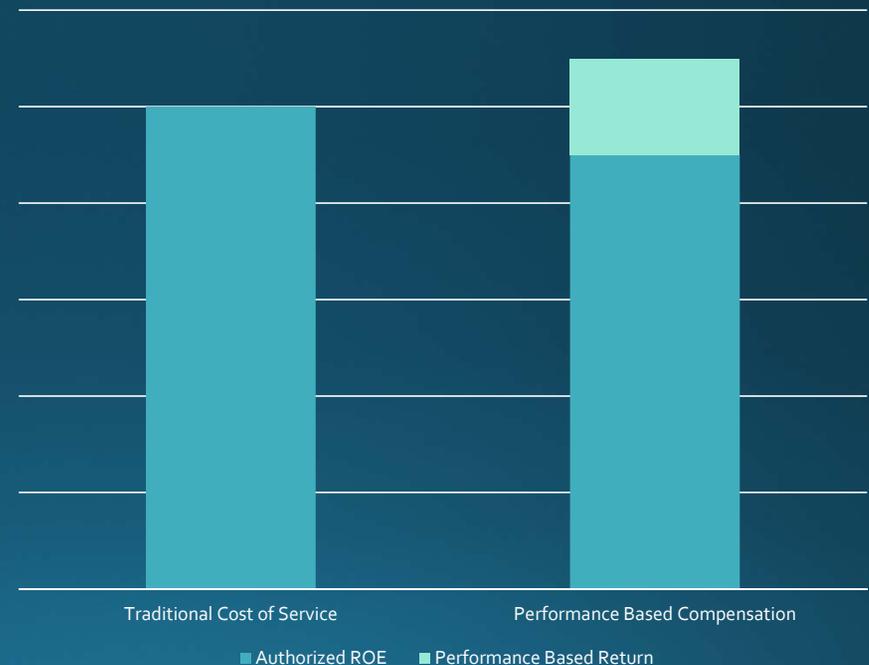
- Citation: Rocky Mountain Institute, "The Economics of Demand Flexibility", 2015

# Modernize the Utility Business Model

## #2 Pay for Performance

Shift to a **pay for performance** model by developing performance incentive mechanisms for **system efficiency, distributed energy resources and network support services.**

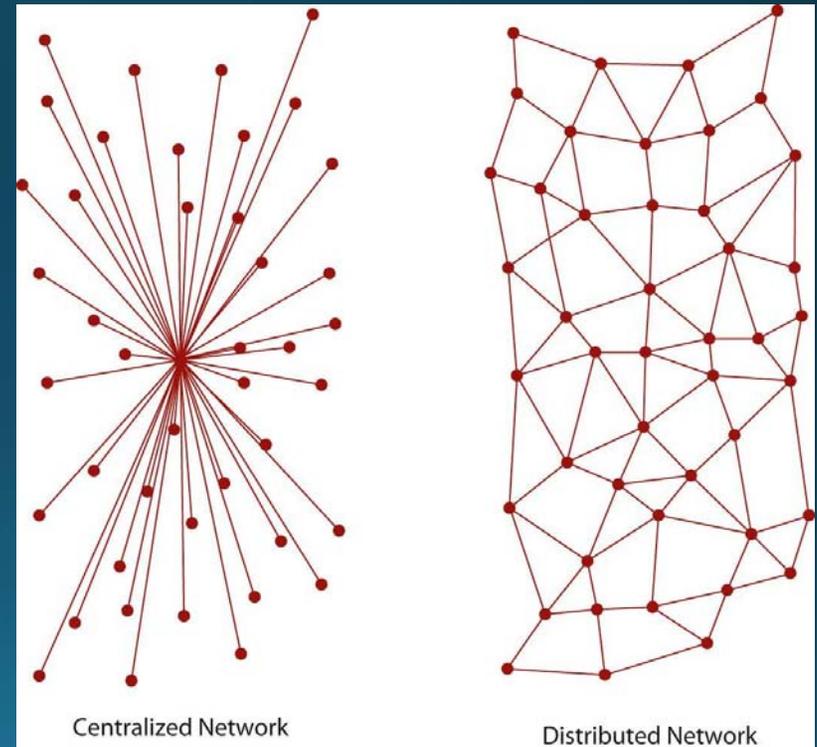
Utility Profit Opportunity Models  
Illustrative Percent Return on Equity



# Modernize the Utility Business Model

## #3 Develop New Models for Partnership and Innovation

Promote new kinds utility partnerships to transition to an information-based utility and to develop revenues that may offset charges to end-users.



# Modernize the Utility Business Model

## #4 Update Service Quality Metrics to Address Today's Priorities

Include **cyber-security** and **customer engagement** within existing service quality standards.



# Modernize the Utility Business Model

## #5 Assess the Existing Split-Treatment of Capital and Operating Expenses

Convene stakeholders to consider total expenditure approach for future implementation to remove capital bias.



# Build a Connected Distribution Grid

# Build a Connected Distribution Grid

## #1 Advance Advanced Meters

The utility should develop an advanced meter roll-out plan to support two-way energy flow that includes:

- Business case;
- Time varying rates;
- Implementation schedule;
- List of capabilities to be delivered in response to those enumerated by the PST process.



# Build a Connected Distribution Grid

## #2 Plan for Third-Party Access & Innovation

Utility should submit a plan for how advanced meter capabilities can be **accessed by third-party** providers, with proper privacy and security protections.



# Build a Connected Distribution Grid

## #3 Share the Cost Burden

Utility should share communication infrastructure through partnerships to reduce costs.



# Build a Connected Distribution Grid

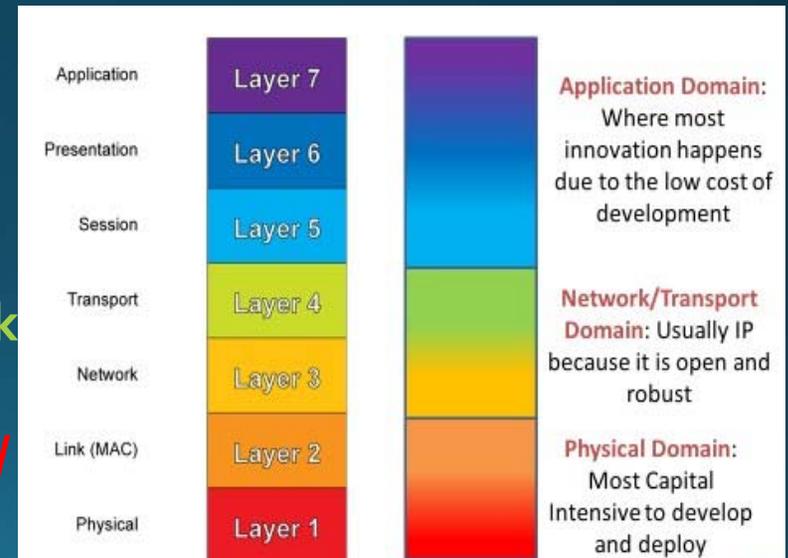
## #4 Focus on Functionalities to Avoid Technological Obsolescence

Create a benefit-cost analysis for advanced meter functionality using the categories established in Docket 4600 and based on the business case.

Apps

Network

Meters/  
Tech



Meters as tech platform for upgradeable apps: 7-Layer vs. 3-Layer OSI Reference Model

# Build a Connected Distribution Grid

## #5 Proactively Manage Cybersecurity

Provide annual cybersecurity briefing to Commission on threats, responses, and proactive measures.

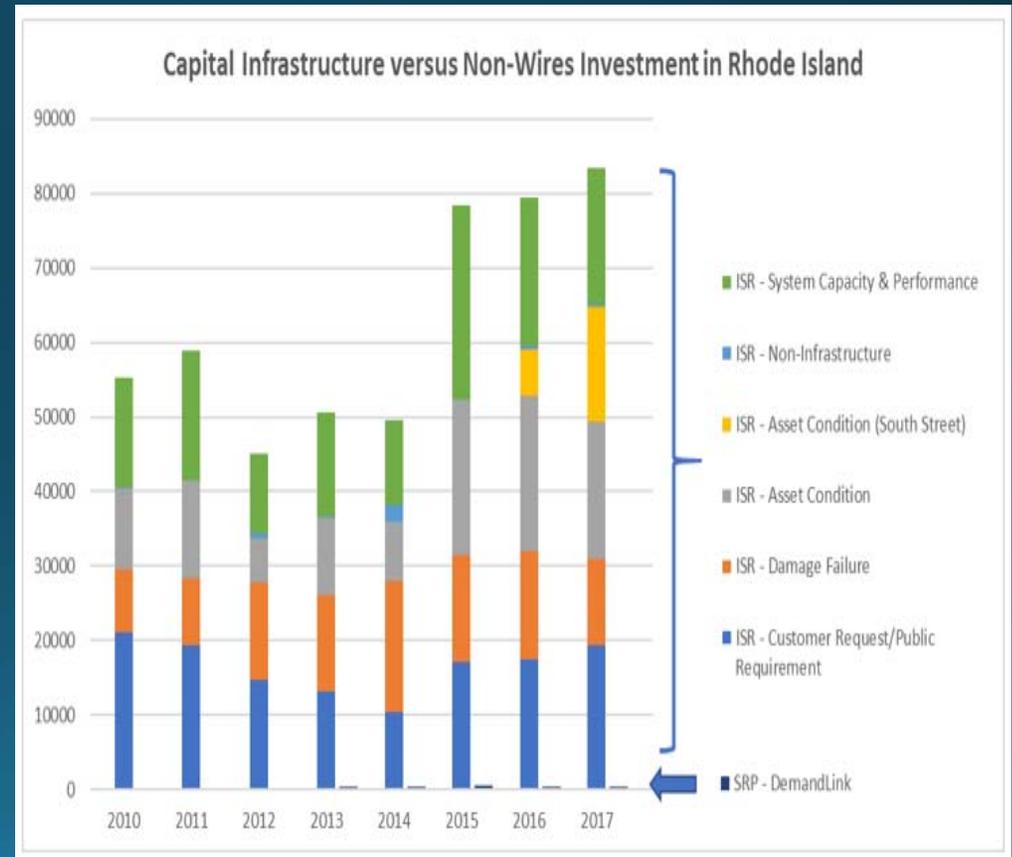


# Leverage Distribution System Information

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## #1 Synchronize Filings

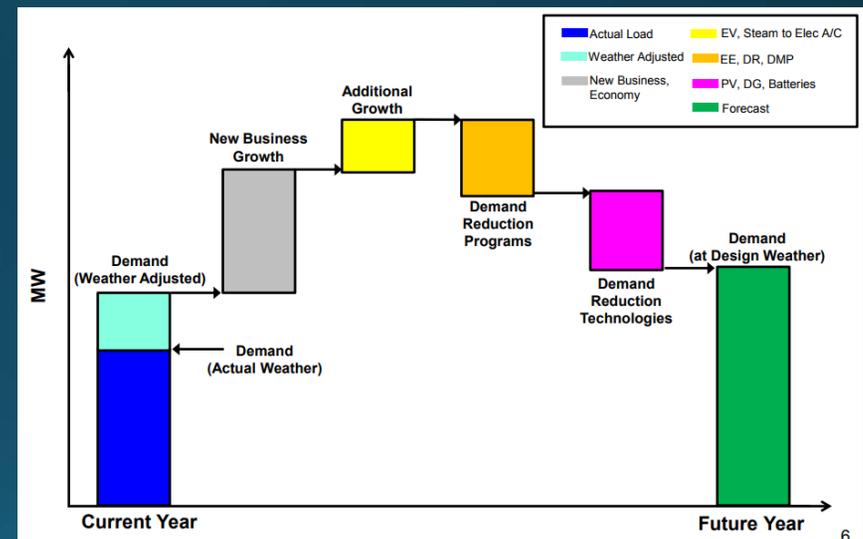
Utility should file the Infrastructure System reliability and System Reliability Plan as a linked, synchronized DSP filing.



# Leverage Distribution System Information

## #2 Improve Forecasting

The utility should include detailed information on Distribution System Planning (DSP) forecasts in annual SRP/ISR filings and implement a stakeholder engagement plan during forecast development.



Source: ComEd illustration of distribution system planning aggregated capacity

# Leverage Distribution System Information

## #3 Establish Data Access Rules

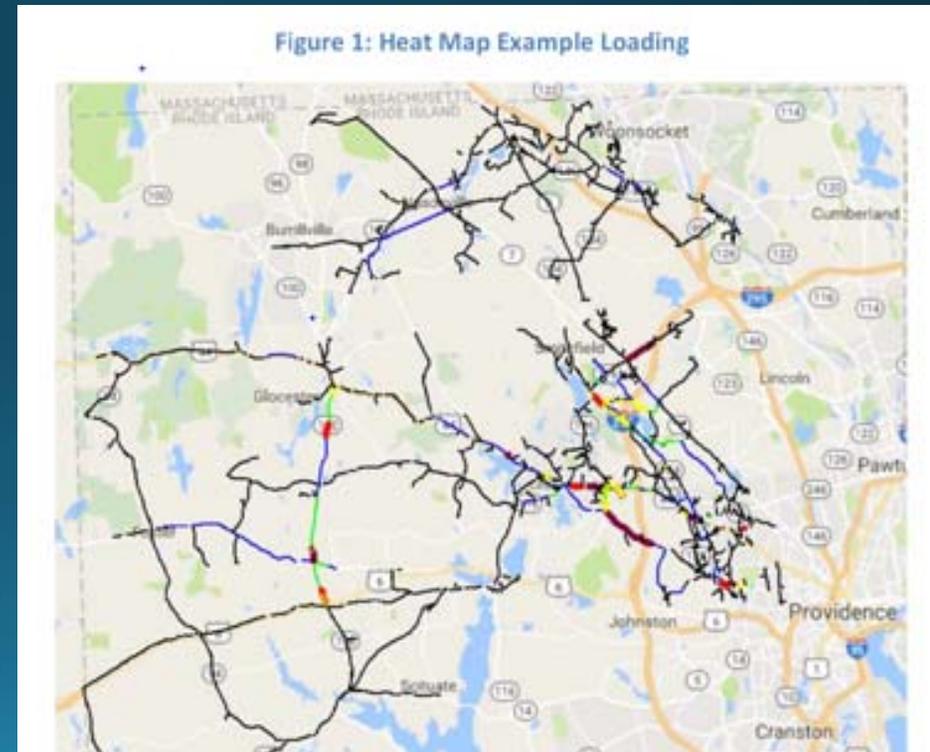
The utility should create a data access plan to make system and customer data easily accessible to customers and third parties, with proper privacy and security protections.



# Leverage Distribution System Information

## #4 Compensate Locational Value

State regulators and policymakers should develop an implementation strategy for compensating the locational value of distributed energy resources.

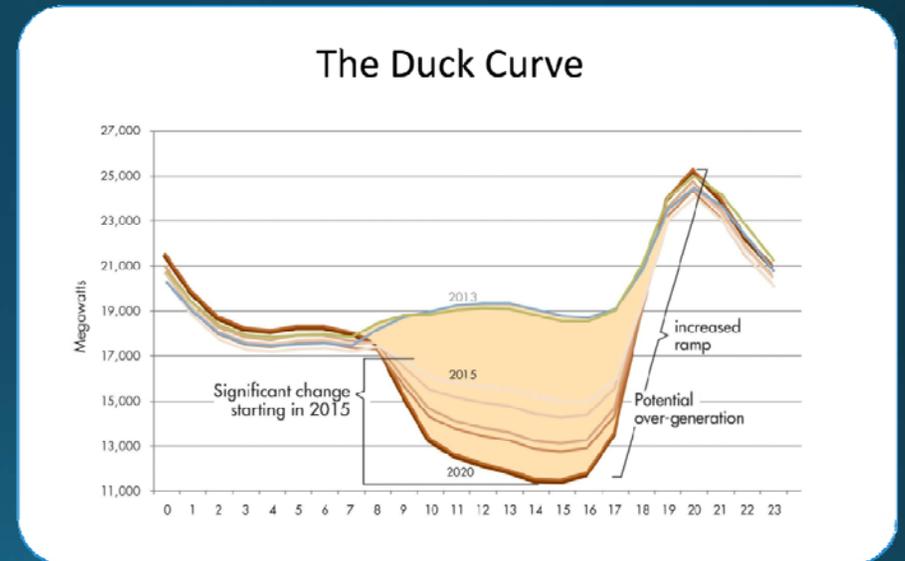


# Advance Beneficial Electrification

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## #1 Design Rates to Increase System Efficiency

Electric vehicle rates could be designed to maximize system benefits.



# Advance Beneficial Electrification

## #2 Outcome-Based Metrics

Beneficial Electrification proposals should include tracking of outcome-based metrics that are relevant to consumers and public policy objectives.

# Advance Beneficial Electrification

## #3 Beneficial Heating

If the utility proposes beneficial heating programs beyond those it proposes in the 2018-2020 Energy Efficiency and System Reliability Program Plans, they should be consistent with the principles described here.



# Implementation Vehicles

- The recommended actions will be taken through a variety of regulatory vehicles over 2017-2019 including:
  - Rate Case Docket
  - ISR Docket
  - SRP Docket
  - EE Program Plan
  - Other, as needed

# Next Steps

- Stakeholder feedback on draft recommendations due by Thursday, October 26<sup>th</sup>.
- Please submit to [DPUC.powertransformation@dpuc.ri.gov](mailto:DPUC.powertransformation@dpuc.ri.gov)
- Report to be submitted to Governor Raimondo November 1.
- Additional consultation with stakeholders as implementation vehicles advance



# Discussion