Improving Roof-Top Units and Energy Efficiency in Everything Store

TEAM EFFICIENT SEA

Agenda

- The Challenge
- Key Recommendations – RTU & Partnership
- Decision Criteria and Process
- Complementary Measures
- Execution, Evaluation and Scale-Up
- Pilot Project Impact

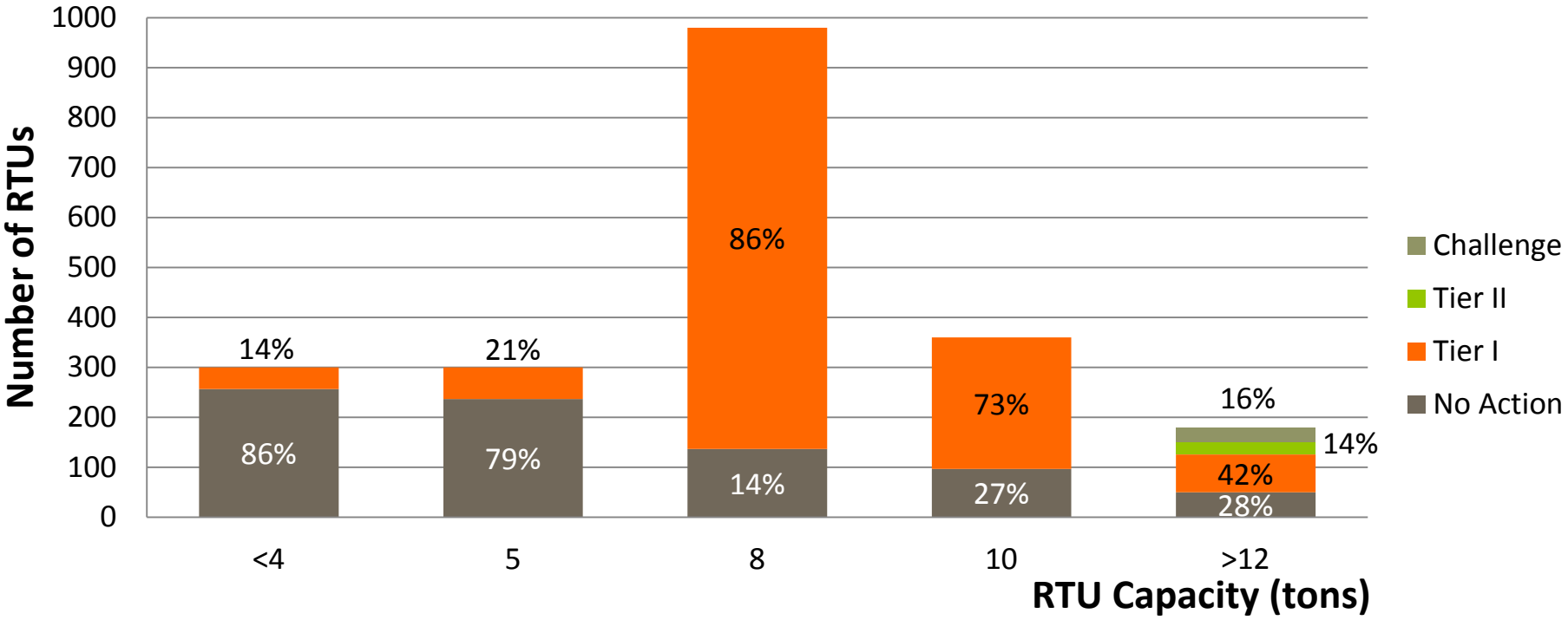
The Challenge

To develop and implement a strategy to achieve the Everything Store's energy efficiency goals cost-effectively…

Motivated by:

- 40% of the energy consumption of stores comes from HVAC components
- For our 3000 stores $430MM/year spent on electricity for RTUs
- Many competitors have already completed major RTU upgrade programs (Walmart, etc.)
- We have committed to reduce energy use 20% by 2020

Recommendations – RTU Replacement



RTU Replacement Summary

No Action	Tier I	Tier II	Challenge
778	1228	25	29

64% of the RTU's are good candidates for replacement

The Challenge

To develop and implement a strategy to achieve the Everything Store's energy efficiency goals cost-effectively…

Motivated by:

- Green initiatives can also boost market share and build competitive advantage
- Highly successful projects would leverage scale and create positive social and strategic impact

…and broaden the impact of this campaign to achieve grander corporate and social goals

Replacing RTUs have clear financial benefits….

How do we capitalize further on the opportunity?

3 RTU suppliers have residential business ($1.4 Billion Market)

+

Everything Store has 3000 stores and customer reach

=

Strategic Relationship on Commercial & Residential Units

Customer Engagement

Engage customers in EE effort to

- **Save money for customers**
- **Scale EE benefits**
- **Drive revenue from green efforts**

Customer EE benefits

More sales, more loyalty

Reward points for EE goods

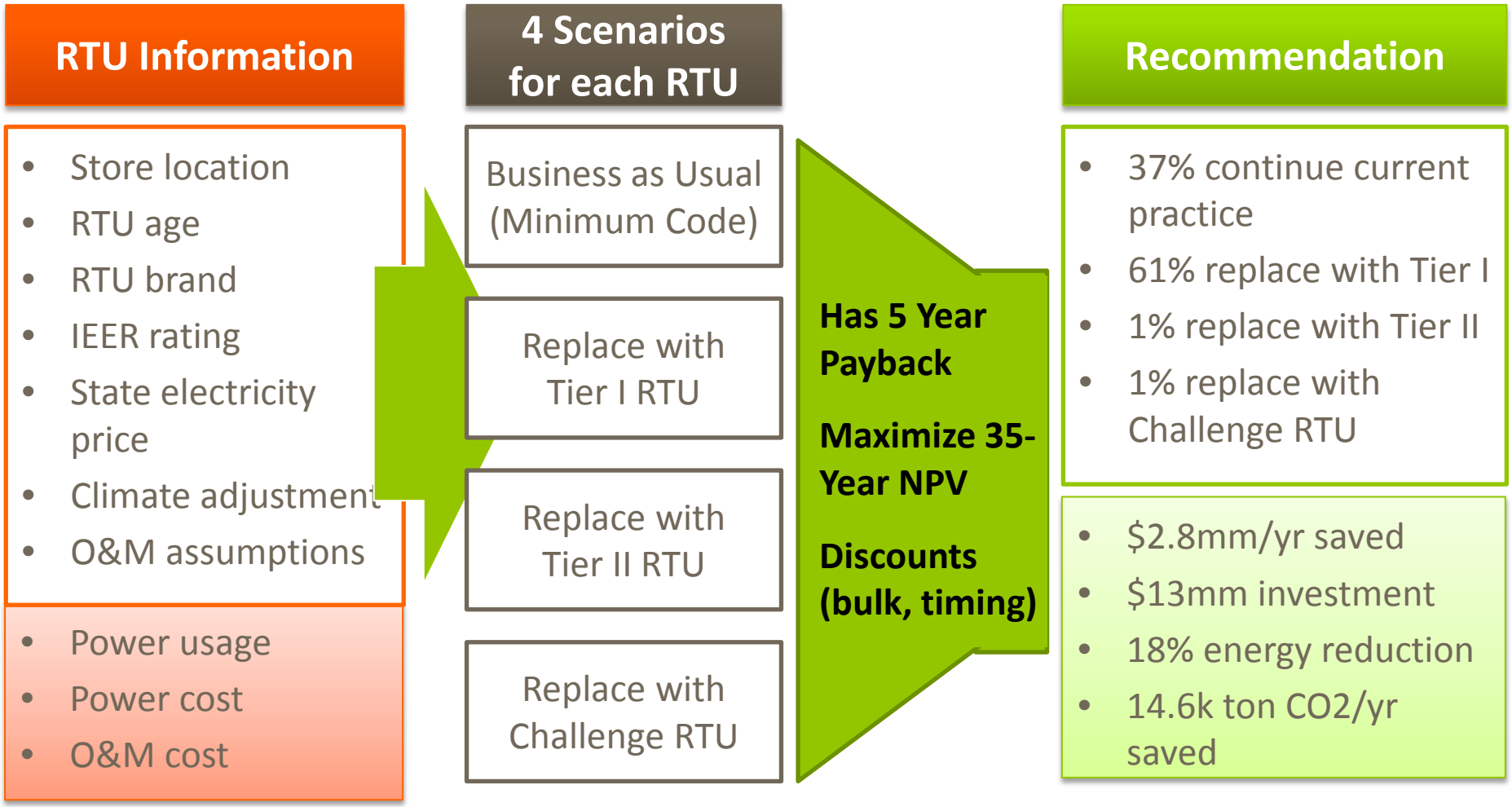
EE Product Labeling

EE Rebates Awareness

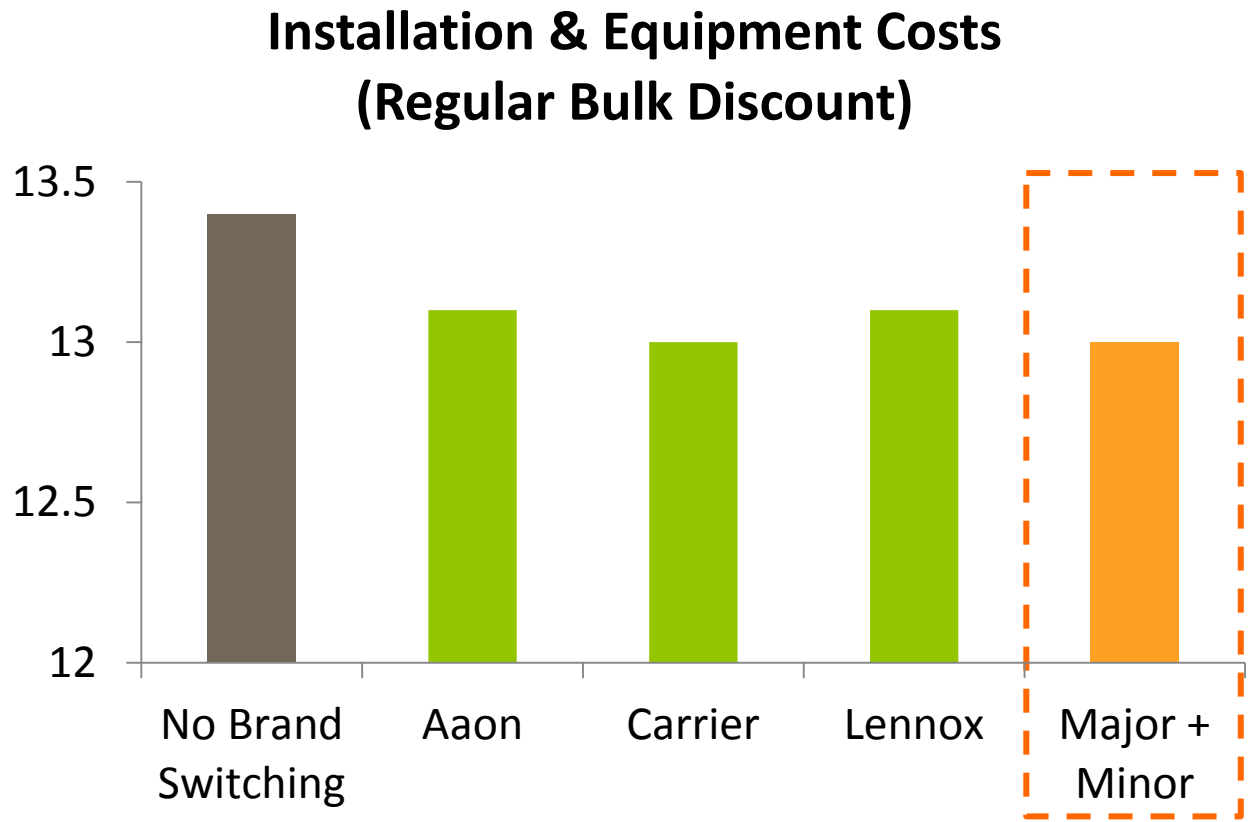
Home EE at Low Cost

EE Employee Training

Pilot RTUs Selection Process



Brand Switching Pays



Simplify RTU management by changing from 4 to 2 brands

Select 1 major partner and 1 junior partner

Potential for negotiated discounts

Complementary Measures for Energy Savings

EE Strategy Coordination

Bundling complementary solutions

Synergistic EE Measures

Smart HVAC control & CO_2 Sensor

Eliminate excess ventilation over occupancy need

Revising building infrastructure

5% savings in energy bills (higher for older stores)

Right-sizing

Downsize RTU's with excess capacity to save energy bill

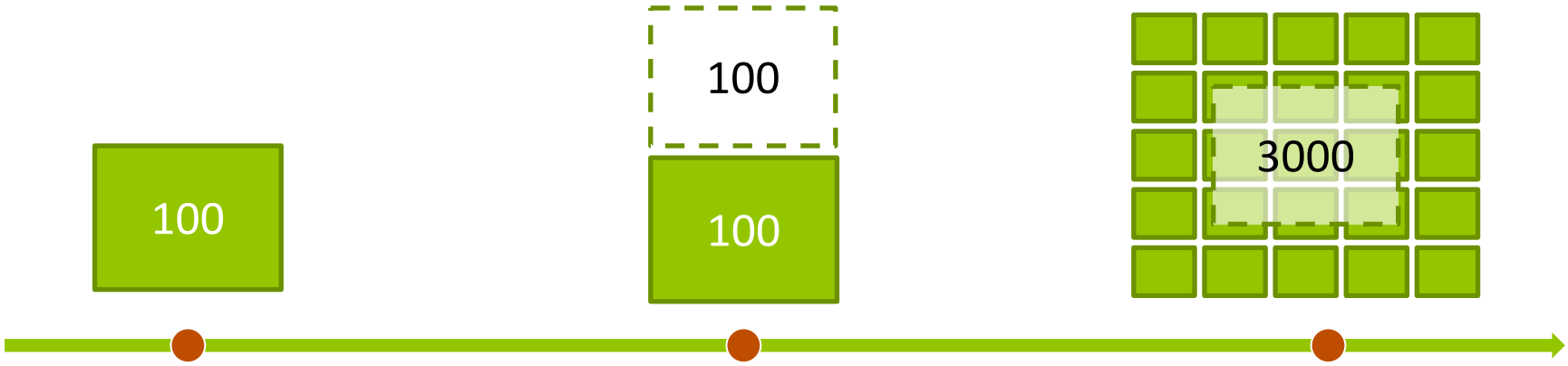
Insulation for refrigeration

Improve customer comfort;

5% energy saving

Source: http://www.energy.wsu.edu/Documents/Session%208%20-%20Retrofitting%20for%20Optimum%20HVAC%20Performance.pdf

Pilot Execution, Evaluation, and Scaling Up



Pilot

- 1342 RTU's to replace
- $13.0 MM for RTUs, $2.5MM for admin, training, monitoring
- 1 year capital budgeting
- 1-3 year implementation

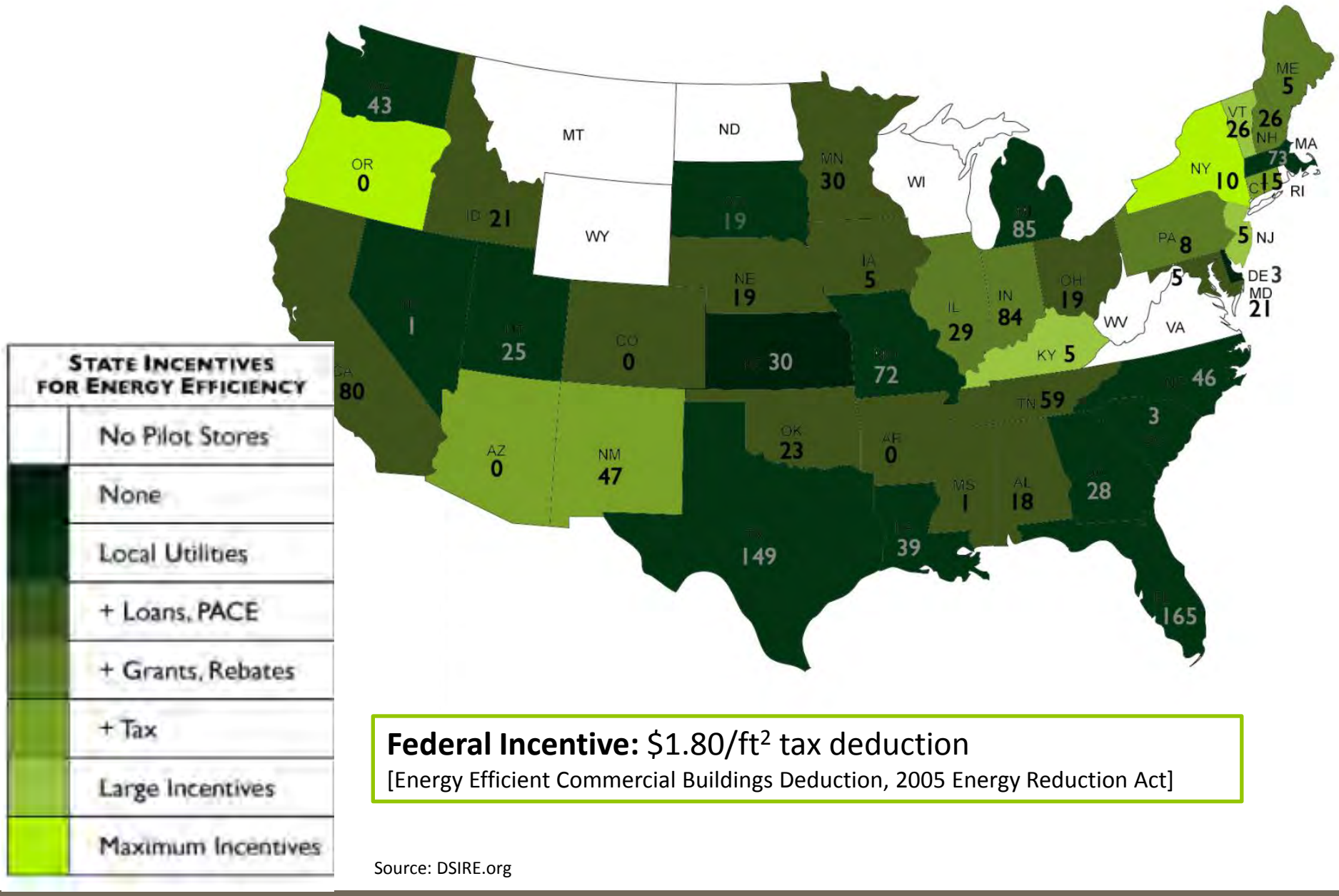
Evaluation

- 3 Year Evaluation
- Control vs Pilot Group
- Metrics: (segmented) electricity usage, customer occupancy, sales, customer/employee survey, O&M metrics
- Collect best O&M practice info for wide adoption

Scale up

- 40,260 new RTU's needed – supplier capacity needs assurance
- $469MM investment – consider financing options
- Targeting of tax incentives is needed

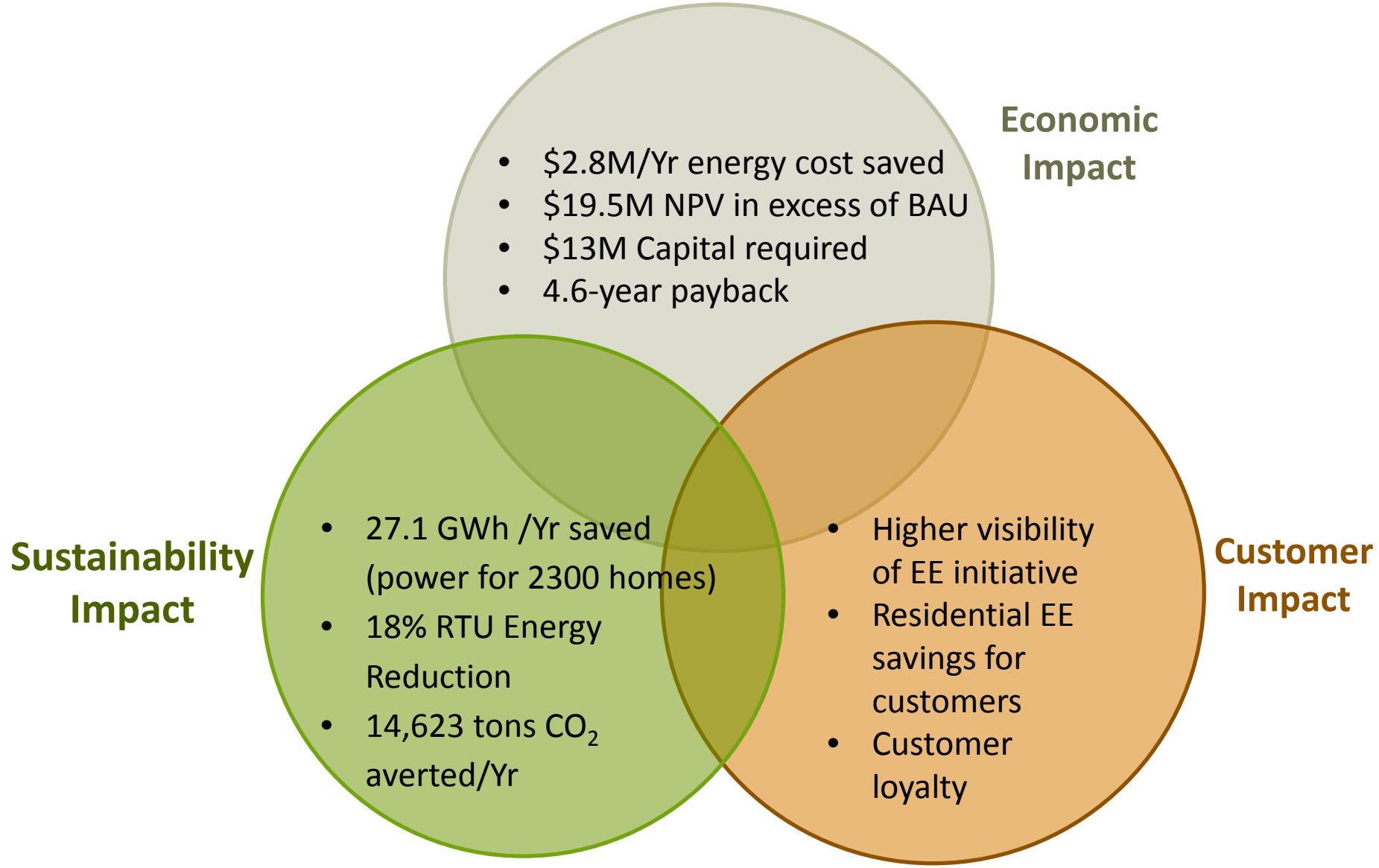
Focused Pursuit of Policy Incentives



Federal Incentive: $1.80/ft^2 tax deduction
[Energy Efficient Commercial Buildings Deduction, 2005 Energy Reduction Act]

Source: DSIRE.org

Pilot Project Impact



Q&A