

PRESENTATION FOR



Rhode Island Public Utilities
Commission

EE FINANCING in RHODE ISLAND



dunsky
ENERGY CONSULTING

www.dunsky.com
(514) 504-9030 | info@dunsky.com

DUNSKY ENERGY CONSULTING



EXPERTISE

- ▶ Energy Efficiency
- ▶ **Financing Strategies/Programs**
- ▶ Distributed Energy Resources
- ▶ Sustainable Transportation
- ▶ Greenhouse Gas Reductions

SERVICES

- ▶ Design and evaluation of programs, plans and policies
- ▶ Strategic & regulatory support
- ▶ Technical & analytical support
- ▶ Facilitation & consultation

CLIENTELE

- ▶ Utilities
- ▶ Governments
- ▶ Solution Providers
- ▶ Large consumers
- ▶ Non-profits

OUTLINE

EE FINANCING OVERVIEW (30 MINUTES)

RIIB AND NATIONAL GRID PRESENTATIONS

EXPANDING FINANCING COVERGE IN RI (25 MINUTES)

OVERVIEW

Dunsky's work for the EERMC began in 2014...

2014-15: *Assessed the use of financing and prepared gap analysis for financing opportunities in RI*

2016: *Input into RIIB programs, annual EE plan and National Grid process evaluations*

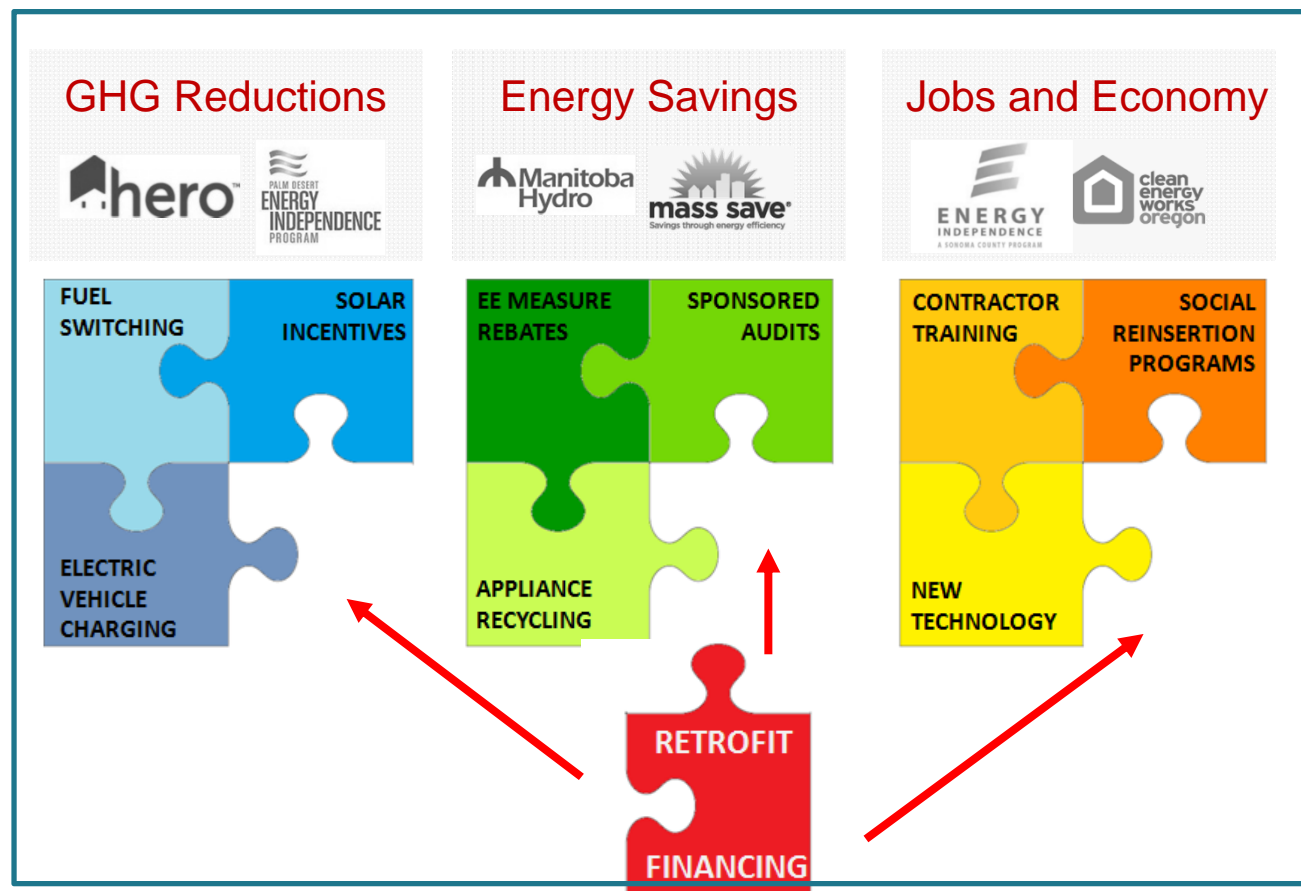
Currently: *Assistance to assess financing provisions in 2018 EE Plan and 2018-20 3-Year Plan*

PART 1:
**EE FINANCING
OVERVIEW**

FINANCING OPTIONS



Financing is a valuable tool in the EE toolbox, to be combined with other strategies (including incentives) to meet end goals.





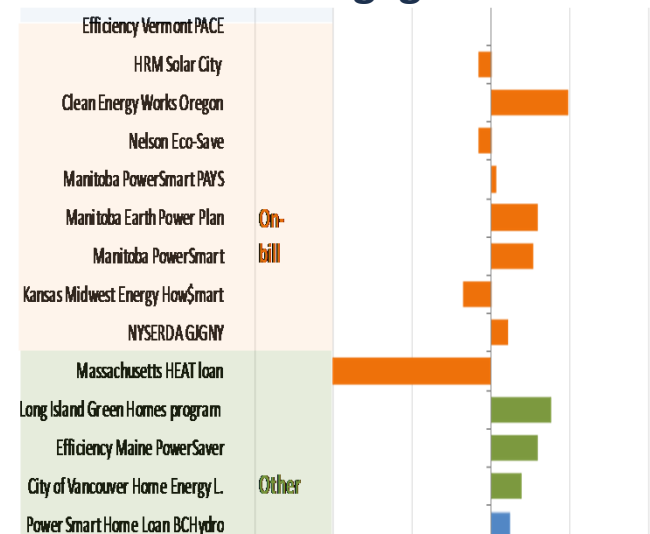
■ What EE financing offers:

1. **Increases Volume:** more projects, bigger projects, more measures
2. **Expands Access:** new markets, expanded underwriting
3. **Can Reduce Ratepayer Costs:** leveraging private capital, reduced incentives

■ Financing challenges and uncertainties

- ▶ Typically does effectively (completely) replace incentives
- ▶ Financing for low-income market is a challenge
- ▶ Low interest rates (0%) is not essential to program uptake

Financing Program Interest Rates Relative to Mortgage Rates





Financing tools fall under **two broad categories**:

REPAYMENT MECHANISMS

- Property Assessed Clean Energy (PACE)
- ☐ Utility On-Bill Financing / On-Bill Repayment (OBF/OBR)
- ☐ Performance Based:
Pay-as-you-save (PAYS),
Energy service agreements (ESA)
- ☐ Equipment leases.

CREDIT ENHANCEMENTS

- Loan loss reserves (LLR);
- Loan guarantees
- Interest rate buy-downs (IRB)
- First Loss Bonds

Programs **may combine features from each category**, along with other effective origination and capitalization strategies.



EE Financing tools can effectively address *SOME* barriers customers face for EE improvements

Access to Capital / Initial Cost

- Loan Loss Reserves / Guarantees
- Lighter Underwriting (e.g. OBR)

Long Payback Periods

- Low interest rates (IRB)
- Transferability (PACE, OBR, Leases)

Hassle or Transaction Costs

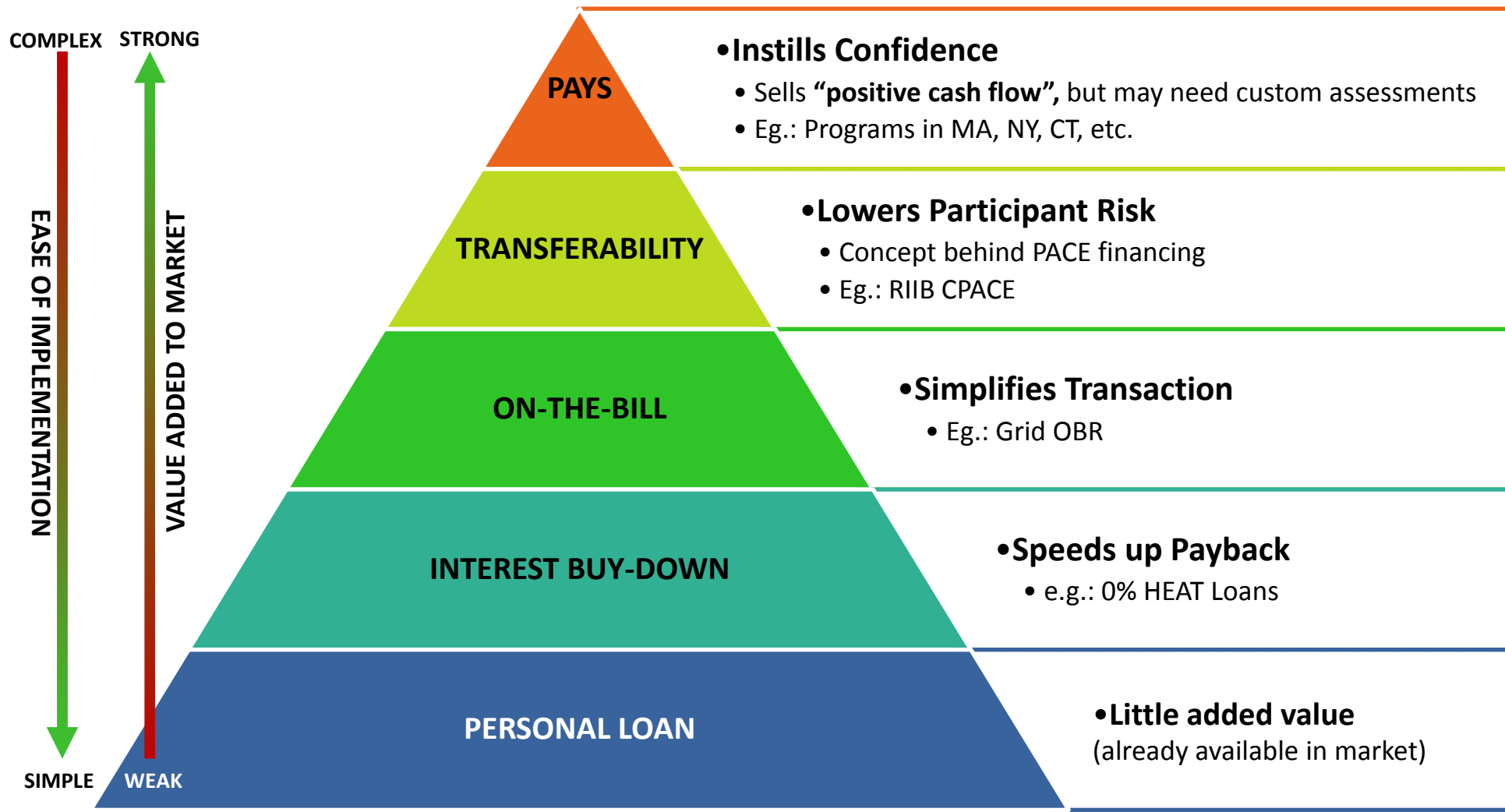
- Contractor Origination (PACE)
- Utility On-Bill Financing (OBR)

Savings Uncertainty

- Performance-Based Financing

Split Incentives (in some cases)

- PACE
- Leases





■ **Benefits:** Did the financing create new savings?

- ▶ Increased overall volume of financing/incentive programs
- ▶ Larger projects, more projects, new measures
- ▶ Increased lifetime savings (deeper savings)

■ **Costs:** What was the cost to ratepayers?

- ▶ Direct program costs:
- ▶ Financing (credit) risks

■ **Coverage:** How well is the program covering the market?

- ▶ Expanded access to financing
- ▶ Consider equity and



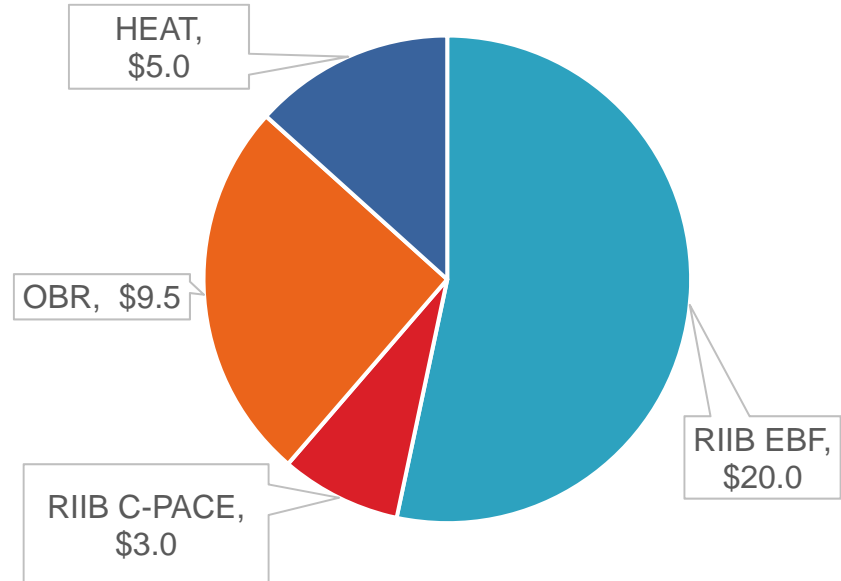
National Grid

- ▶ **Residential:** HEAT Loan – 0% Interest up to 7 years
- ▶ **Non-Residential:** On-Bill Repayment (OBR) – 0% Interest up to 5 years

Rhode Island Infrastructure RIIB

- ▶ **Efficient Building Fund:** Municipal, Low-interest, Long Term
- ▶ **C-PACE:** Property Assessed, Long Term
- ▶ *Both include renewables*

2017 Projected Financing Volumes (\$M)

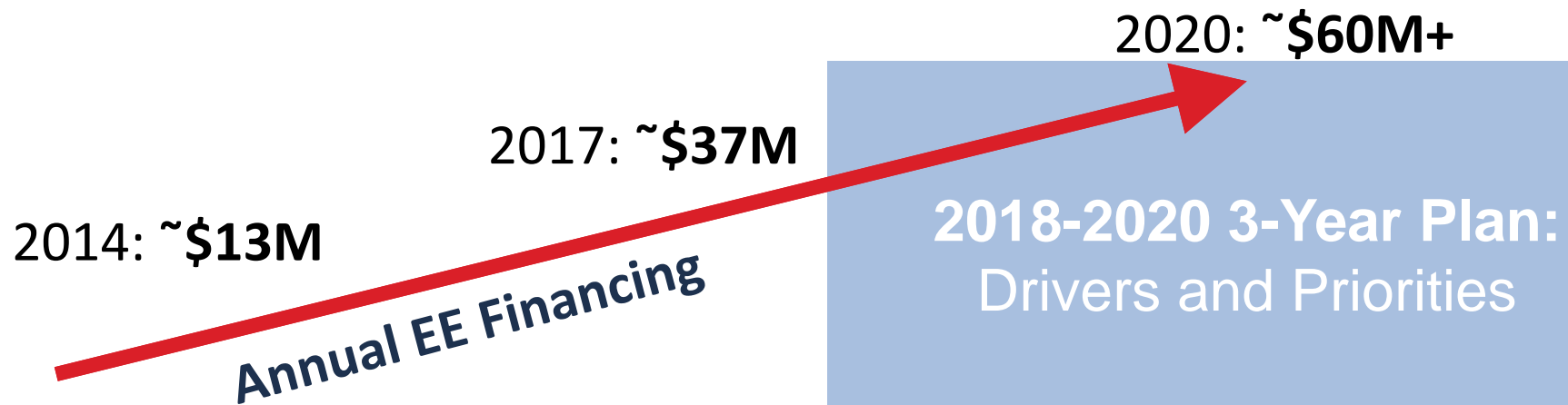


PART 2:
EXPANDING
FINANCING
COVERAGE IN
RHODE ISLAND



Three key ways that RI is seeking to improve market coverage

1. **Increase program volume, impact, effectiveness:**
Appropriate funding allocations, evaluations, targets and reporting
2. **Expand coverage and access:**
Aim to reach new target markets and project types
3. **Reduce costs to ratepayers:**
Leverage private capital and integrate delivery with incentives





- Moving away from an EITHER/OR discussion – programs are complementary
- Grid Financing Strengths (Accessing EE Opportunities)
 - ▶ Project origination
 - ▶ Performance risk assessment
 - ▶ Integrating incentives with financing
- RIIB Financing Strengths (Long-Term Lending and Capitalization)
 - ▶ Credit risk assessment/underwriting
 - ▶ Leveraging private capital
- RIIB-Grid are setting an example of successful cooperation
 - ▶ Allow Grid to claim savings, but be agnostic on who should manage funds



**INCREASE VOLUME,
IMPACT, EFFECTIVENESS**

FINANCING STATUS RI EVALUATING PROGRESS



Overall Challenge: Little was known about the program effectiveness to drive EE uptake, or to assess the cost/benefits of OBR and HEAT loans

2016 Two Program Evaluations Performed:

1. Evaluation of the Large C&I (LCI) Sector Electric OBR
2. Process Evaluation of EnergyWise including HEAT Loan

Each included:

- ▶ Surveys with participants and program staff
- ▶ Assessment of how financing influenced customer decision-making
- ▶ Quantitative review of projects financed: measures, sizes (\$), customer types

2017 and Beyond: Further evaluation efforts would be valuable, as well as consistent reporting on program progress.

FINANCING STATUS RI

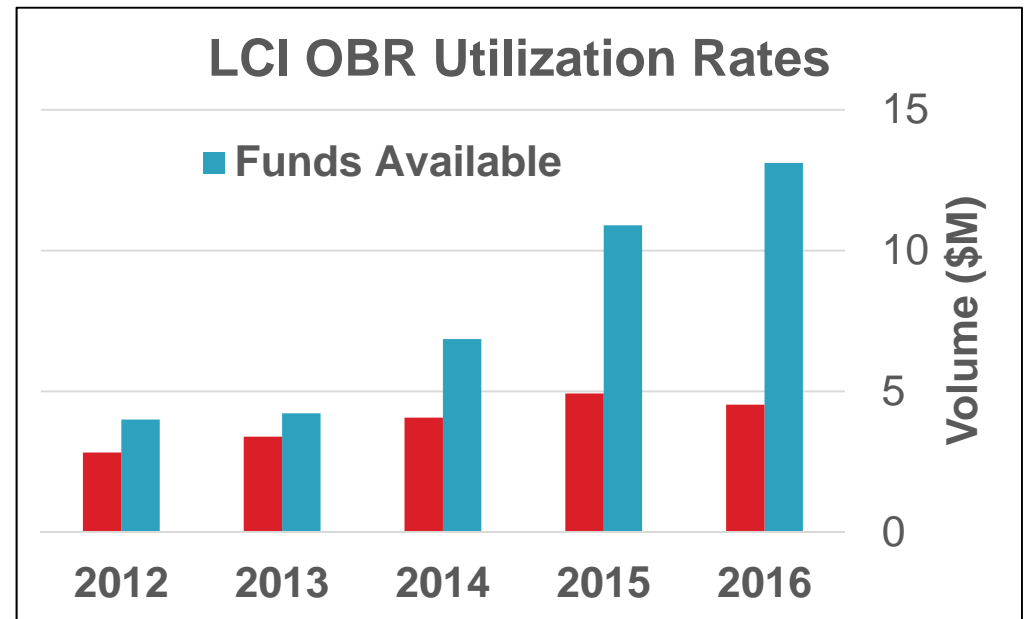
OBR EVALUATION



- Customers like OBR, applies a relationship-based approach
– *but it is used predominantly in the Public/Institutional Sector*
- Lighting is by-far the majority of the electric OBR (Over 90% of projects)
- At historical growth rates, LCI OBR revolving fund could be sufficient for years to come (2020+)

■ Next Steps:

- ▶ Consider pilot to reduce incentive cost
- ▶ Include all OBR in impact evaluation cycle
- ▶ Explore options for deeper savings, and more private buildings



FINANCING STATUS RI

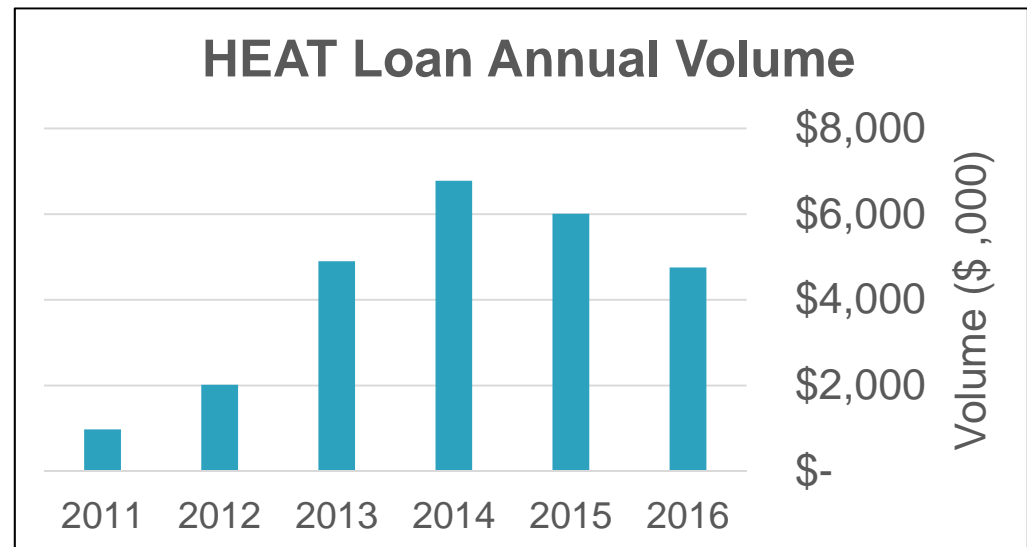
HEAT LOAN EVALUATION



- HEAT Loan encourages weatherization project size increase of over 25%
 - ▶ Satisfaction with program is high and financing appears to address a key barrier for weatherization / HVAC upgrades
 - ▶ Cost of 0% financing to ratepayers is significant (over \$1,000/loan)
 - ▶ Unclear how much demand/access 0% financing supports

Next Steps:

- Further evaluation across weatherization and HVAC
- Explore ways to reduce cost and expand access





Program Balance Sheet (current reporting)

	Grid	RIIB
Fund available	✓	-
Loans paid	✓	✓
Repayments	✓	-
Defaults	-	-

Program Impacts (current reporting)

	Grid	RIIB
Participation	✓	✓
Ass. Incentives costs	-	✓
Annual Saving	✓	✓
Lifetime Savings	-	-



- Apples-to-Apples comparison of program impacts/utilization
- New indicators specific to financing benefits (e.g. depth of savings)
- **Next Step:** Establish regular reporting on all metrics for RIIB and Grid

EXPANDING COVERAGE AND ACCESS

FINANCING STATUS RI

RIIB OFFERINGS



RIIB has created new offerings that expand access to financing and leverage private capital (for EE *and* Renewables)

■ Efficient Building Fund (EBF)

- ▶ New savings - projects were not being funded previously
- ▶ 5:1 leveraging of ratepayer money

■ C-PACE

- ▶ Potentially some new savings – integrates with incentives
- ▶ 100% Private capital
- ▶ Targeted marketing approach: e.g. long-term care

■ Next Steps: Tailored Single Family and Multi-Family long term financing options to come...

**REDUCE COST TO
RATEPAYERS**



Three strategies to reduce ratepayer costs

○Pilot custom financing/incentive integration

- Develop a cash flow-based offering to participants in the **custom** program. Focus only on Day 1 cash savings.
- **Consider Option: OBR Custom Pilot**

Leverage private capital, instead of ratepayer capital

- Other sources of capital may include **third party lenders** – an industry that is well developed in New England – or the utility's own capital.
- e.g. C-PACE, EBF

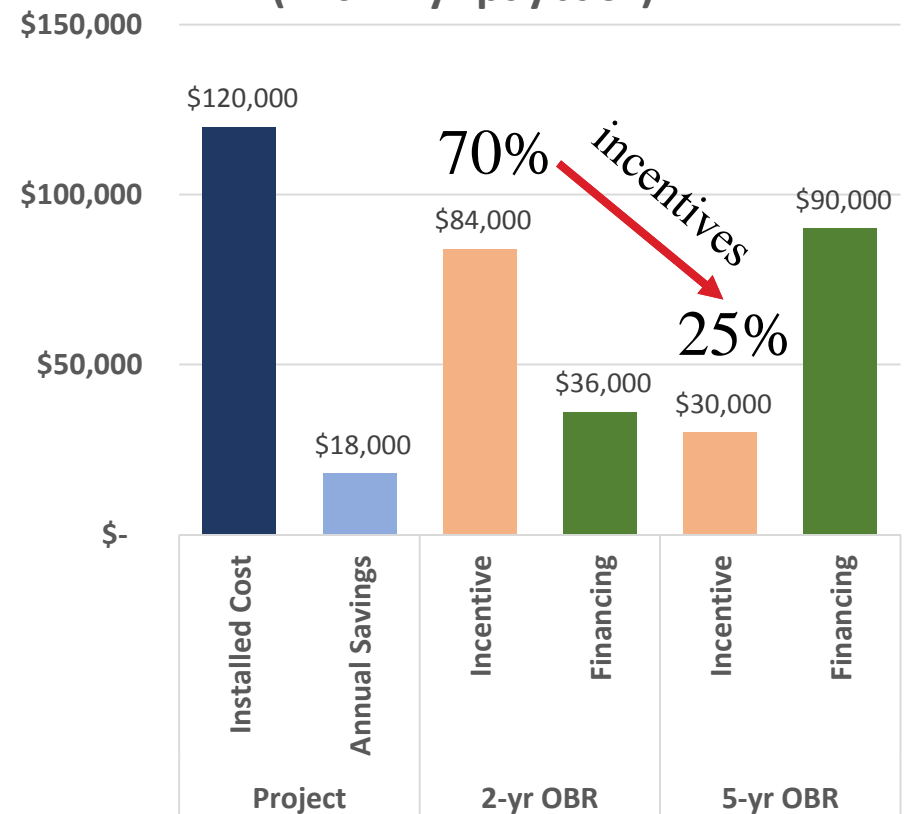
Build financing into the cost-effectiveness assessment

- Ensure that **financing/incentive programs** are design to be cost-effective.
- **Move away from 0% financing.**
- e.g. HEAT loan

Financing and incentives are best viewed as complementary tools that can work together to increase uptake in some programs, and reduce ratepayer costs in other programs.

**Next Steps:**

- **Pilot:** Consider cashflow-based integration of incentives with OBR for portion of projects on custom track
- **Consider ways to lower HEAT costs:** HEAT is a rare examples 0% financing in the residential sector
- **Explore:** Further options for leveraging private capital
 - ▶ Source OBR funds from private lenders
 - ▶ New SF and MF financing products via RIIB and/or private lenders

**Hypothetical LED Lighting Project
(with 7-yr payback)**

WRAP-UP

FINANCING STATUS RI

WRAP-UP



- New programs filling market gaps / innovating ways to expand access
- Further Piloting/Evaluation needed to test strategies to reduce cost to rate-payer and increase volume/depth of savings

Program	RIIB		Grid				To Come...		
	EBF	C-PACE	OBR LCI	OBR SB	OBR Gov.	HEAT Loan	Multi Fam.	SF Long	State Bldg.
Increase impacts and volume	✓	✓	✓	✓	✓	X	-	-	-
Expanded coverage and access	✓	✓	-	-	-	✓	-	-	-
Reduced rate-payer cost	?	✓	?	?	?	?	-	-	-

FINANCING STATUS RI

WRAP-UP



What is a transition plan to move to best practice in the next 3-years?

- 1. Increase Volume, Impacts, Effectiveness:**
Evaluation and Reporting plan for existing programs.
- 2. Expand Access:**
Continue to explore ways that new products or alterations can capture new markets and measures.
- 3. Reduce Costs to Ratepayers:**
Pilot ways to reduce incentives through integrated cashflow financing and leverage more private capital.

ALEX HILL

Senior Consultant and Principal

alex.hill@dunsky.com

514.504.9030 x30



dunsky
ENERGY CONSULTING



■ 2015 Recommendations

- ▶ **Residential:** Establish new program (RPACE) and integrate offerings
- ▶ **Non-Residential:** Improve reporting and conduct evaluations
 - *Develop long-term financing options to drive deeper improvements*
 - *Establish municipal sector program*

■ 2016 Evaluations and Input

- ▶ Process Evaluation of the OBR LCI Electric Program
- ▶ Provided input into target setting and 2017 EE Plan feedback

■ 2017 Ongoing Challenges and Opportunities

- ▶ Provide Feedback on 2018 Annual Plan
- ▶ Provide Feedback/Perspectives for 2018-2020 3-Year Plan