Lighting Efficiency Programs 101

- A Background to BED's Energy Services
- Lighting, Lighting, Lighting
- A Breadth of Programs
- Maximizing Rebates





BED's Energy Services

• Our Story

- Established in 1990
- Program administrator for city of Burlington, VT
- Funded by electric ratepayers
- Provide energy efficiency services for commercial/residential customers

The Team

- Chris Burns, Director of Energy Services
- Jake Yanulavich, Lead Engineer Commercial Energy Services
- J.C. McCann, Commercial Energy Specialist
- Ravi Parikh, Commercial Energy Specialist
- Michelle Keller, Commercial Energy Specialist UVM
- John Lincoln, Residential Energy Specialist



BED's Energy Services

• Since 1989...

- Provided \$8.7 million in incentives
- Saved consumers almost \$10 million in retail electric costs
- Helped Burlington use 5.3% less electricity than in 1989

• In 2013...

- Provided over \$1 million in incentives
- Saved 6,227 mWh's
- Reduced CO₂ emissions by an estimated 41,930 tons
- Completed installation of AMI meters/Launched Energy Engage
- Launched On-Bill Financing & PACE Program



Lighting Program Portfolio

- BED's Commerical Lighting Programs/Offerings
 - Prescriptive
 - Smartlight
 - Custom/Calculated (includes New Construction)
 - RELIGHT
 - On-Bill Financing





Lighting the Way

	2010	2011	2012
# of Projects	84%	92%	87%
mWh Savings	82%	79%	64%





Less Paperwork, Less Headaches

The quest to go prescriptive (and upstream)

- Simple Rebate Form
- Preset Rebate Amounts
- Easy to Understand
- Easy to Complete (distributor/contractor/customer)
 - Less of a Timesink
 - No Calculations Needed
- Easy to Process (utility)
 - Quicker Rebate Checks



Prescriptive programs are easier, but are they better?



Rx Energy Savings: What You See...

Office Building (Any Town, VT); \$150/fixture

	Watts	Operating Hours	kWh
150W Metal Halide [Exterior Wallpack]	190	4296	816
30W LED Wallpack	30	4296	129
ENERGY SAVINGS	160	4296	687



Rx Energy Savings: What We See...

Office Building (Any Town, VT); \$150/fixture

	Watts	Operating Hours	kWh
150W Metal Halide [Exterior Wallpack]	182.9	4296	786
30W LED Wallpack	52.5	4296	226
ENERGY SAVINGS	130.4	4296	560



Rx vs. Custom: Choose Wisely

Office Building(Any Town, VT)				
	Rx	Custom		
Claimed kWh Savings	560	687		
Rebate Amount	\$150/fixture	\$200/fixture		

Going custom may be slower, but sometimes...

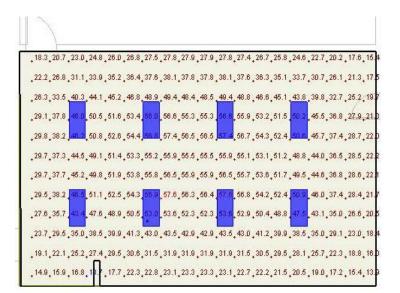
- Greater Claimed Savings
- Higher Rebates
- Easier Sell



Rethink, Reimagine, Renew...

- Elementary School (Burlington, VT)
 - Watts/Square Foot: 1.2 (CBES) \rightarrow 0.6 (Existing) \rightarrow 0.3 (Proposed)

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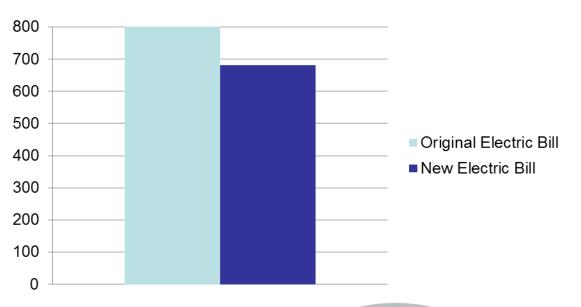


On-Bill Financing

The Energy Savings Pay You Back!

Lighting Upgrade: T12 \rightarrow HPT8; Occ. Sensors, Exterior LED's

- Project Cost: \$2,976
- BED Incentive: \$822
- Energy Savings: \$119/month
- Loan Amount: \$117.19/month
- Loan Term: 19 months





Resources for BED Programs

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