

Unleashing New York's Energy Efficiency Market Once and for All

**A Journey Through the Results from the 1st Person Perspective
and a Look Into The Future**

A Look Back at the Results

A Framework for examining the past: Business Models, Financing, and Policy

Where it all began: 2008 – 2012 EEPS 1 and What I Learned

How do you grow?: 2012 – 2015 EEPS 2 and What the Industry Accomplished

Seeing past the present: 2015 – 2030 ETIPS an Opportunity to Change



2008-2012







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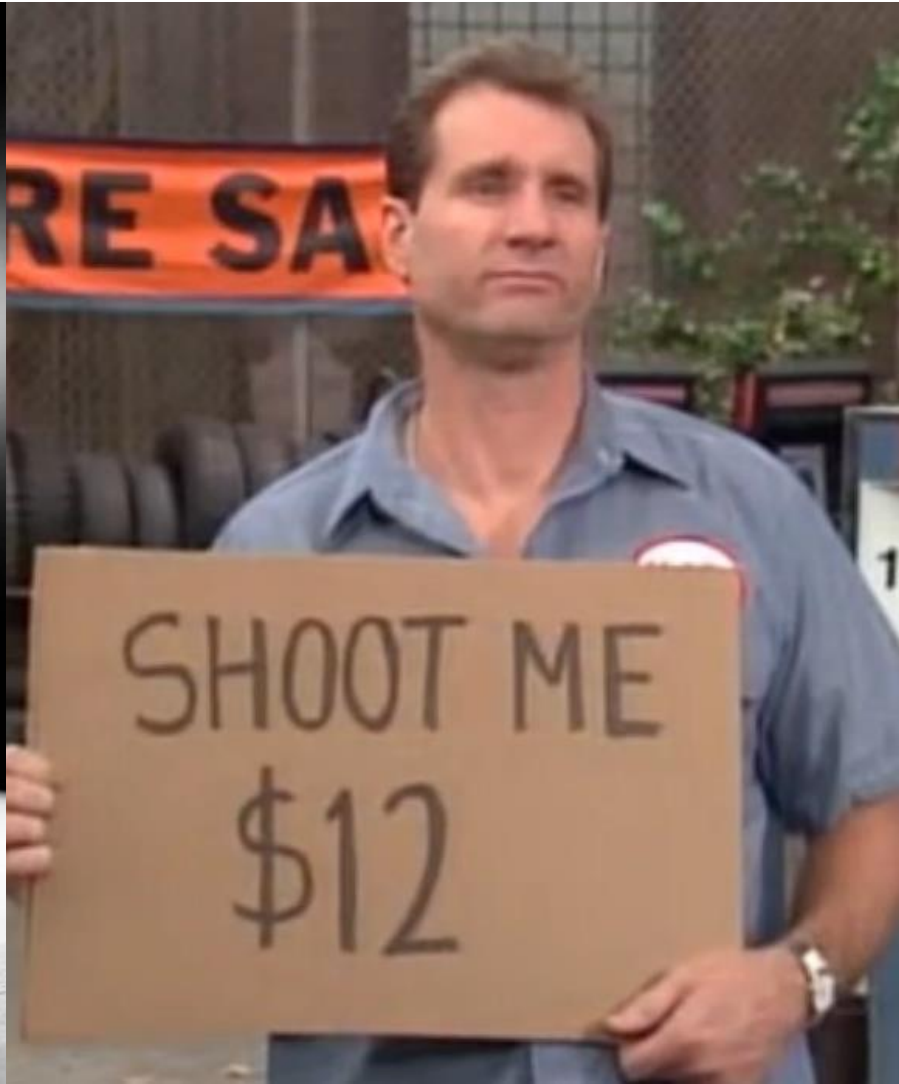


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Lack of Time



Shortage of Capital



Deficit of Trust

2009

2017



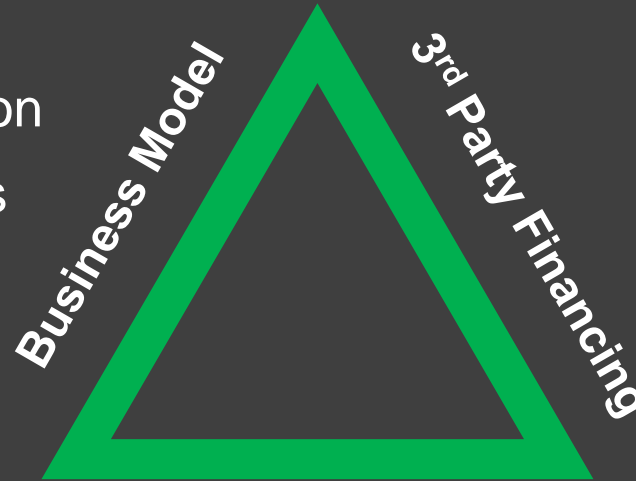
How do you achieve energy-efficiency at scale in a very hard to reach market?

How do you sell lightbulbs to people who don't know they need them?

(and don't see anything wrong with the ones they already have?)

2008-2012

- Performance Based Incentives for Implementation
- Based on TRM Calculations of Savings



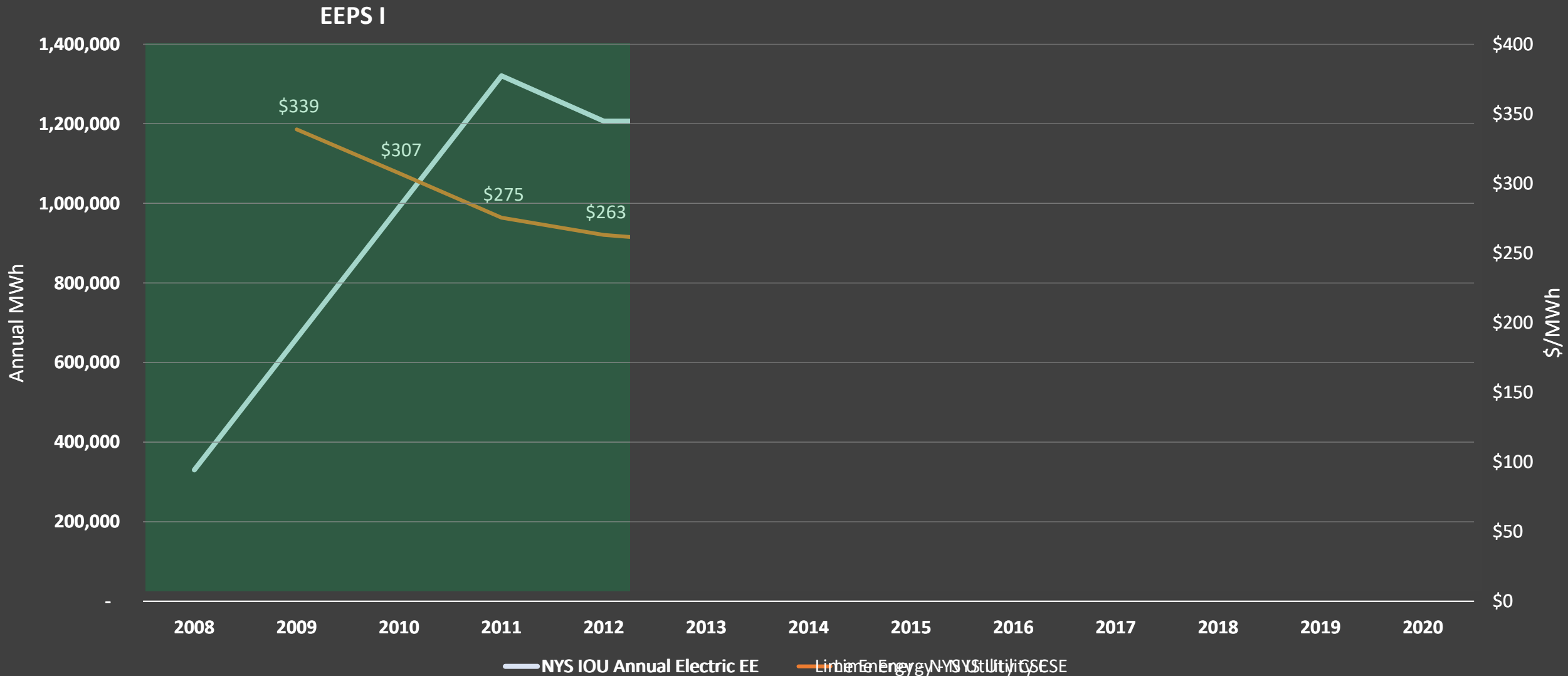
- On Bill Financing

Policy and Regulation

- NY Fast Track Programs
- Ability to Calculate Savings Based on Actual Customer Data



NYS IOU Electric Efficiency vs. Lime Energy Utility Cost of Saved Energy (CSE)



2012-2015







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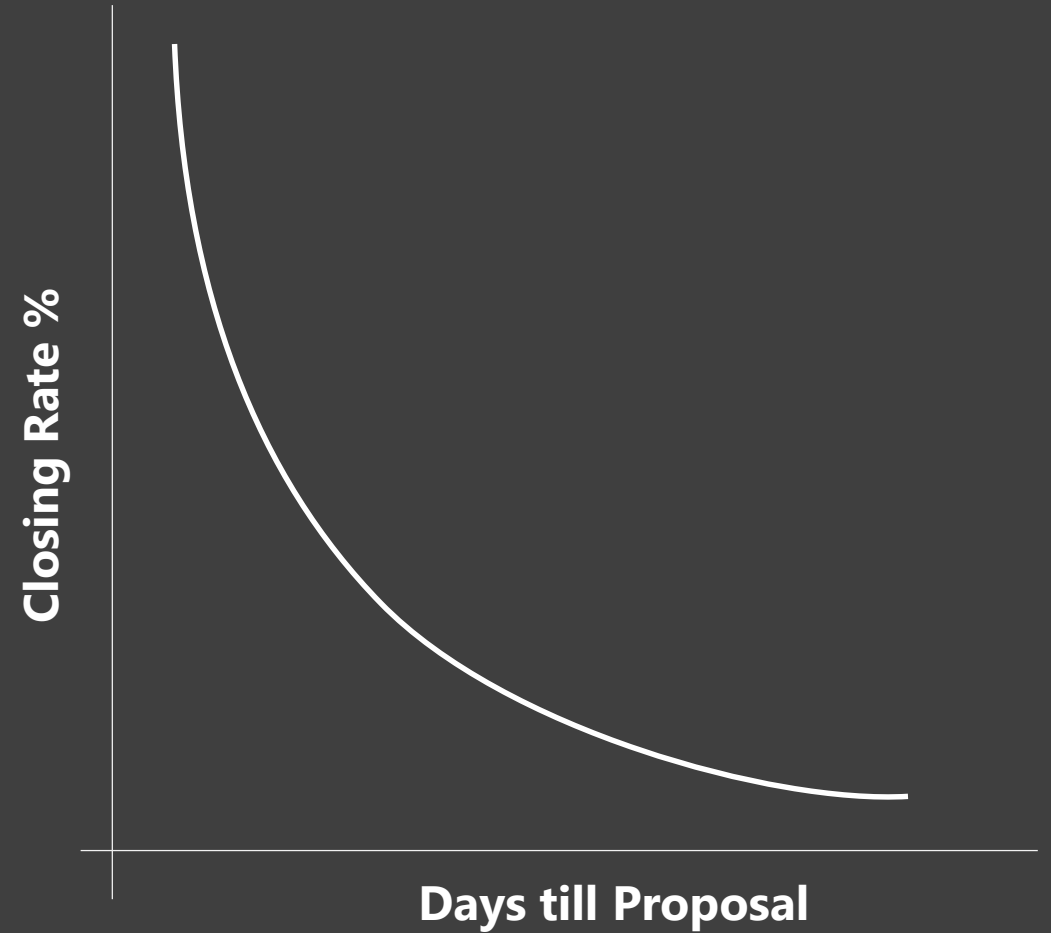
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Lack of time was an obvious problem for small business owners.

How it impacted participation was striking.







Savings Results	Dollars*	Energy
Monthly Usage Savings	\$76.33	636 kWh
Annual Usage Savings	\$916.00	7,632 kWh
5 Year Savings	\$4,580.00	38,160 kWh

Cost Proposal

Project Cost	\$3,123.12
Utility Incentive	\$1,648.51
Net Cost	\$1,474.61

Simple Payback 19 Months

Lump Sum and Extended Payment Options

	Lump Sum @ 11% Disc.	12 Monthly Payments	24 Monthly Payments
Estimated Savings/Month	\$76.33	\$76.33	\$76.33
Payment(s)	\$1,312.40	\$122.88	\$61.44
Effective Monthly Cashflow	N/A	(\$46.55)	\$14.89
Deposit	\$0.00	\$0.00	\$0.00
Net Customer Cost	\$1,312.40	\$1,474.61	\$1,474.61



lime energy

Cost Proposal

Savings Results	Dollars*	Energy
Monthly Usage Savings	\$206.25	2,052 kWh
Annual Usage Savings	\$3,355.00	24,610 kWh
5 Year Savings	\$17,775.00	123,050 kWh

Cost Proposal

Project Cost	\$4,471.43
Utility Incentive	\$3,047.82
Net Cost	\$1,423.61

Simple Payback: 8 Months

Lump Sum and Extended Payment Options

Lump Sum @ 11% Disc.	12 Monthly Payments	24 Monthly Payments
\$1,312.40	\$122.88	\$61.44

Estimated Savings/Month: \$206.25
Effective Monthly Cashflow: \$1,312.40

DIRECT INSTALL

AUDITOR SUMMARY

Item	Est. Cost	Est. Value	Est. Savings	Est. Payback	Est. Life	Est. Net Cost
Item 1	100	100	100	1	10	0
Item 2	200	200	200	1	20	0
Item 3	300	300	300	1	30	0
Item 4	400	400	400	1	40	0
Item 5	500	500	500	1	50	0
Item 6	600	600	600	1	60	0
Item 7	700	700	700	1	70	0
Item 8	800	800	800	1	80	0
Item 9	900	900	900	1	90	0
Item 10	1000	1000	1000	1	100	0

Summary

Your business will spend about **\$12,000** less on energy per year if you take advantage of our energy efficiency upgrades.

VALUE ADDED BENEFITS	ESTIMATED INCOME EXPECTED FROM YOUR ENERGY EFFICIENCY INVESTMENT*
✓ Reduce Maintenance costs	\$3 Savings after 1 Month \$1,000
✓ Enhance Employee Productivity	\$3 Savings after 1 Year \$12,000
✓ Increase Customer Comfort to Improve Sales	\$3 Savings after 5 Years \$60,000
✓ Improve Workplace Safety and Reduce Potential Hazards	

ESTIMATED ANNUAL LIGHTING COST COMPARISON

Category	Year Cost Today	Year Future Cost After Investing in Energy Saving Technology
Lighting	\$10,000	\$3,000

Total Upgrade Cost: \$

Utility Incentive (40%): \$

Your Cost (60%): \$

Est. Annual Savings: \$

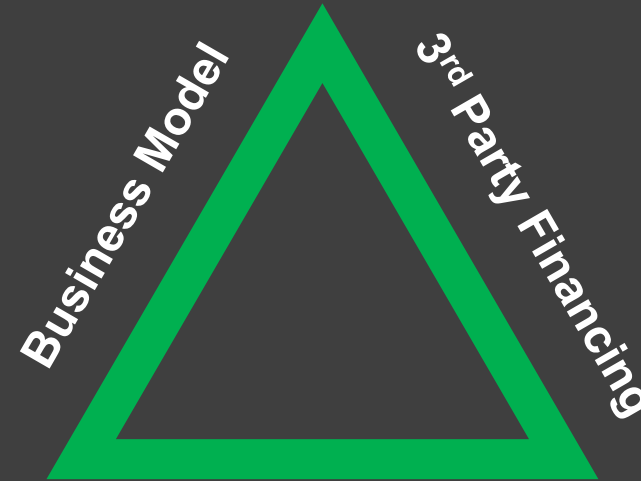
Est. Maintenance Savings: \$

Est. Investment Payback: 15 months

Est. 5th Year Return On Investment: 78%

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2012-2015

**Policy and Regulation**

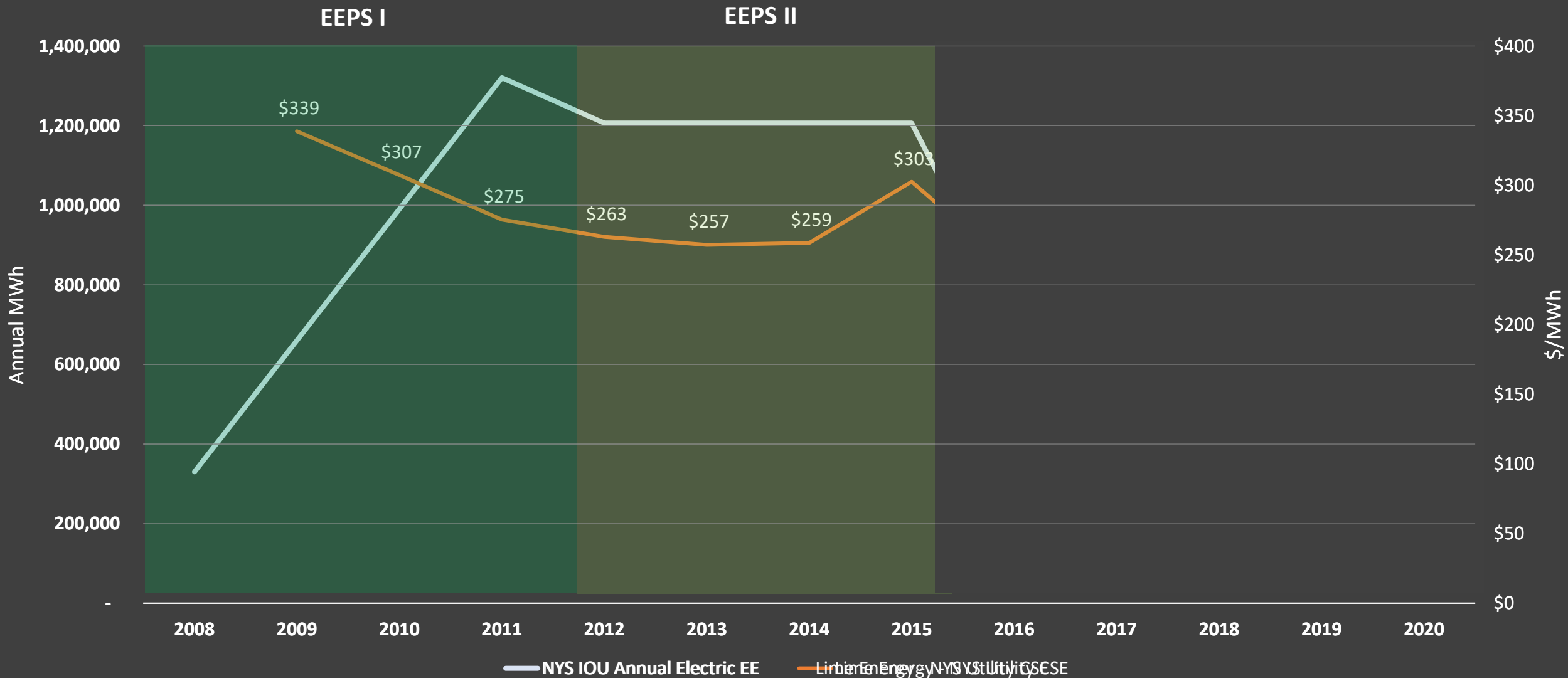
- Same Day Proposals using an iPad based technology platform
- Performance Based Incentives. *Implementation AND Program Administration*

- Developed a 24 month On-Balance-Sheet financing offering to simulate National Grid

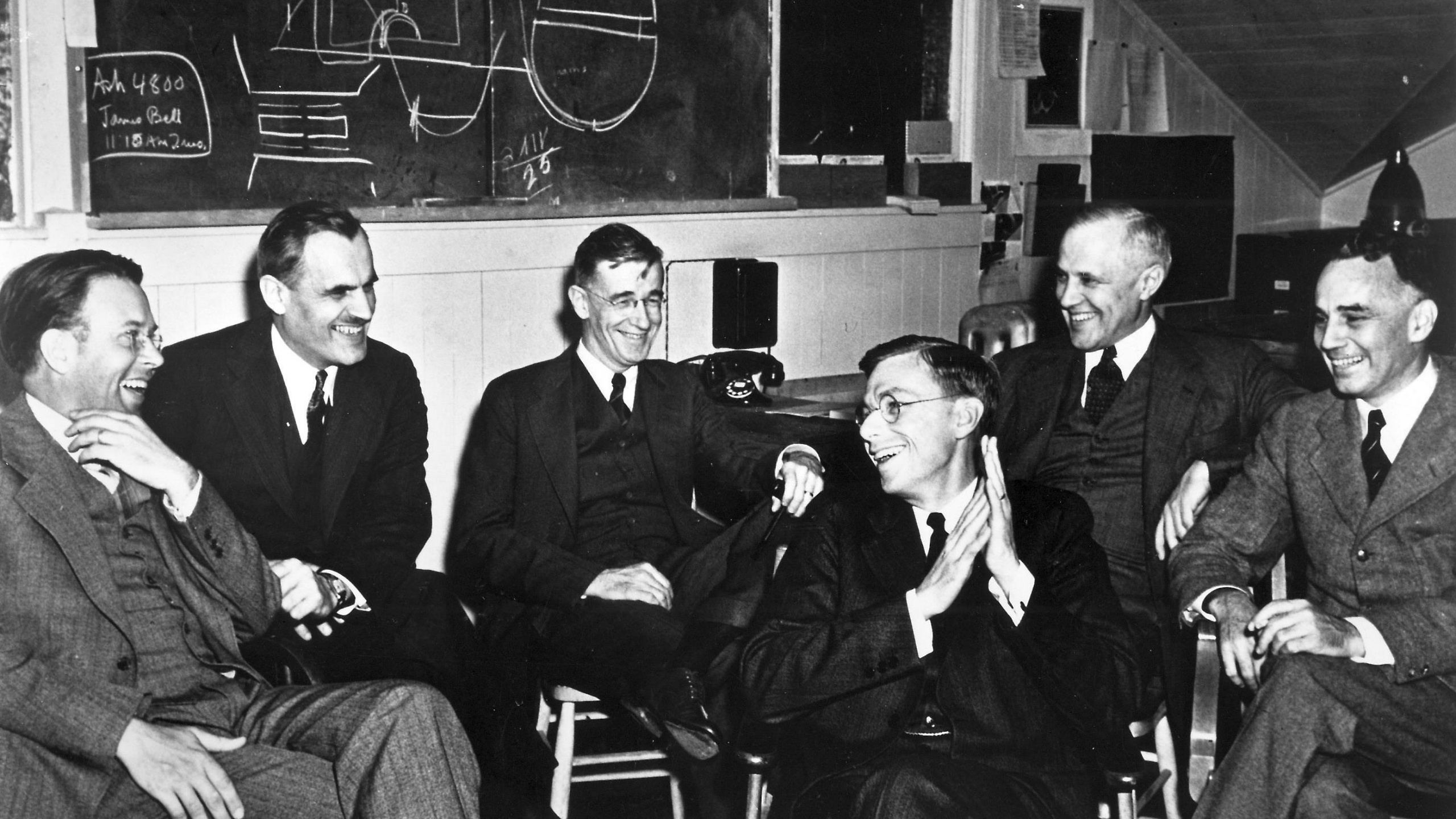
- Expansion of Goals
- Shift in Cost Benefit Requirements from Measure to Program Level



NYS IOU Electric Efficiency vs. Lime Energy Utility Cost of Saved Energy (CSE)



2015-2030



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James Bell
11:10 AM 2mo.

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Setting the Stage in New York

REV 2030 Goals

Reforming the Energy Vision

40% Reduction in GHG
emissions from 1990

50% Generation of electricity
from renewables

23% Decrease in building energy
consumption from 2012



40% Reduction in GHG emissions from 1990



50% Generation of electricity
from renewables

Estimated Costs to Achieve Goal

Scenario 1

\$3.2 Billion Renewables

\$0.5 Billion Efficiency

\$3.7 Billion

Scenario 2

\$5.6 Billion Renewables

\$0.0 Billion Efficiency

\$5.6 Billion

\$2 Billion Value of Hitting EE Goals

23% Decrease in building energy consumption from 2012





**Deeper Measures &
Lasting Engagement**



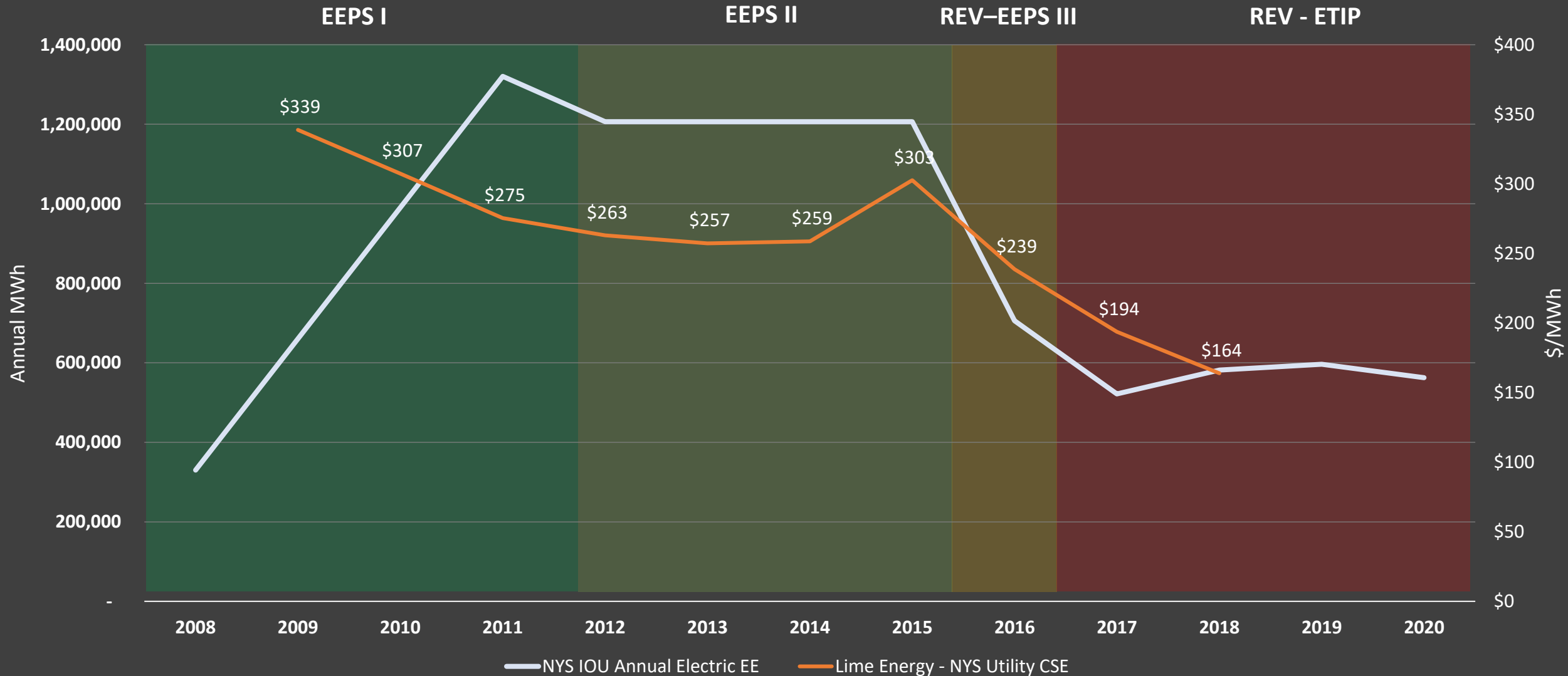
**Low Incentive
Environment**

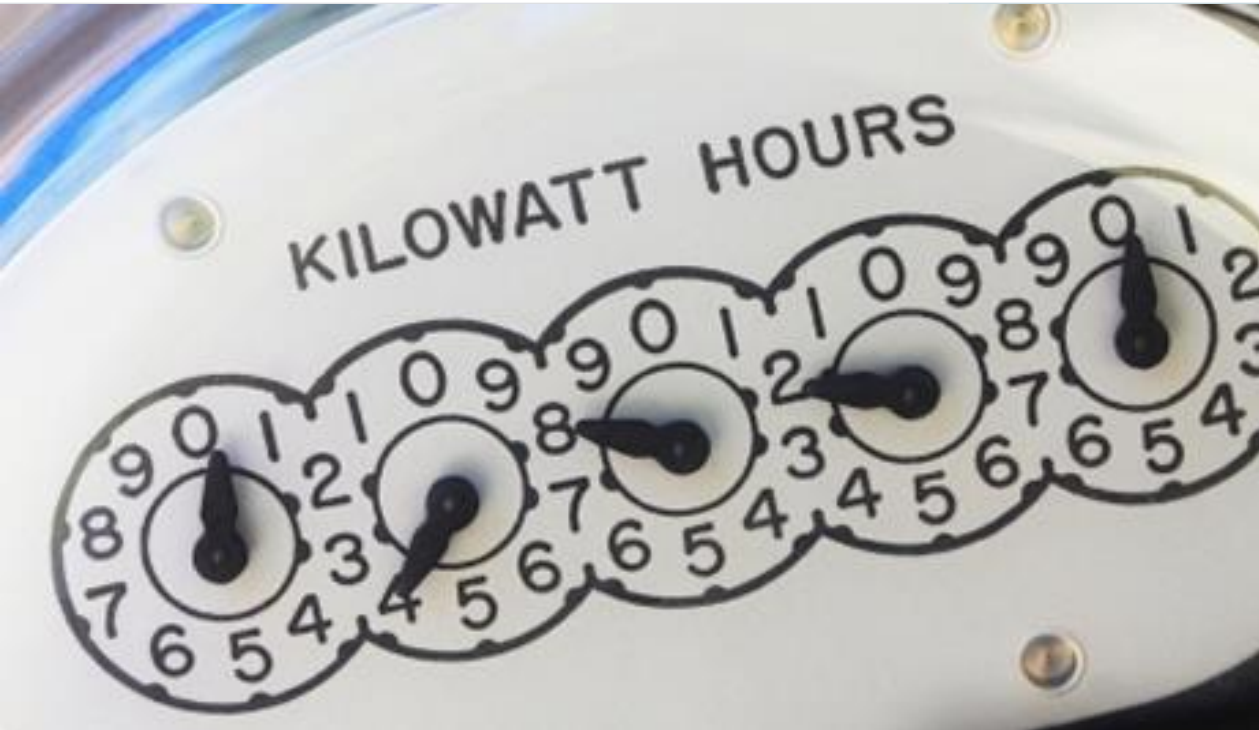


**No More Stick, and a
Dried-up Carrot**



NYS IOU Electric Efficiency vs. Lime Energy Utility Cost of Saved Energy (CSE)





**Continuous M&V and
a transparent price signal,
based on the value of EE to the grid**

**Performance Based Payments
Through a transparent Market Place**



**3rd Party Financing
and
Performance Insurance
Instruments for Efficiency
Portfolios**



No Upfront
Cost - No Debt



Increased
Visibility &
Safety



Performance
Guaranteed



Lower
Utility Bills

We estimate you can **SAVE**

\$70,000

over the lifetime of your new lighting system. Use some of that savings over time to pay for the upgrade. The rest goes to your bottom line.

BONUS! \$15,500

In **Maintenance Savings**, Based on a current replacement cost of \$X.00/yr. over life of new system

Your Energy Savings Plan



Save Energy, Guaranteed!

Never pay more than your measured monthly savings. ²

40 Month Term

LED Lighting Pays for Itself

65,600

Current Cost to Keep the Lights On

55,800

New Cost to Keep the Lights On

\$9,800

Term SAVINGS

All you need to get started, is a deposit of **\$4,600**, which will be credited back to your utility bill after project completion.

Your signature below constitutes a non-binding intent to proceed. Next, we will schedule a more detailed audit of your building and present you with a final contract.

Prepared for:

[Contact Name] [Title]
[Business Phone]
[Business email]

[Business Name]
[Business Street]
[Business City, State Zip]

Seller:
[Auditor Name]
[Auditor Phone]
[Auditors email]

Lime Energy
[Auditor Street]
[Auditor City, State Zip]

X: _____

Date _____

X: _____

Date _____



Field Tool

Lime Labs: Project Apiary

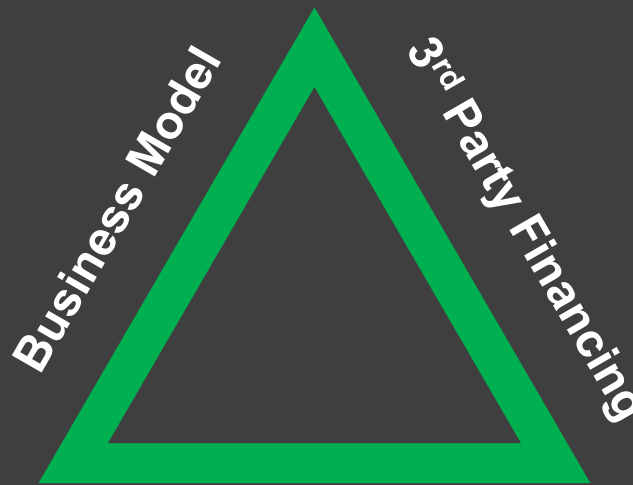
Wireless Sensor Gateway

Lime Labs: Project Apiary



Long-term Lime M&V installations contain wireless Current Transformers that transmit to a metering gateway. The Canary (metering gateway) receives, processes, and transmits data wirelessly or via cellular modem to Lime servers for data processing and disaggregation for billing.

2015-2030



- Performance Guarantees for Small Customers
- Pay for Metered Performance Incentives
- Connected Devices that allow for continuous improvement and continuous opportunity assessment

- 3rd Party Project Financing for the Customer Portion of Project Costs
- 3rd Party Financing for Performance Incentive Cashflows
- Insurance Products that defray performance risk

Policy and Regulation

- Standardized Measurement of Efficiency
- Paying for Efficiency Based on its Value to the Grid
- Allowing Utility to Rate Base EE, or Share in Savings from Differed Infrastructure Investments

Setting the Stage in New York

REV 2030 Goals

Reforming the Energy Vision

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Thank You!