

### Constellation Retail by the Numbers

#### What We Serve

Natural Gas: More than 650 Bcf

load in C&I markets^

Retail Power: More than 110 TWh

C&I load under contract<sup>^</sup>

Energy Efficiency: 34,000 MWh

conserved by customers

Distributed Energy: 300 MW

customer sited, completed or under construction

#### Who We Serve

More than 2.5 million customers

Serving 2/3 of the Fortune 100

#### More than 185,000

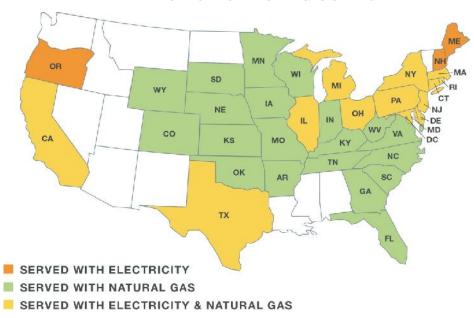
business & public sector customers

#### More than two million

residential customers

#### Where We Serve





Constellation is headquartered in Baltimore, MD and is a unit of Exelon Corporation

\*2014 data, ^annualized load



## Exelon Corporation: A National Energy Leader

**Operations & Business Activities in** 48 states, Washington D.C. & Canada

Revenues: \$27.4 billion | Assets: \$86.8 billion

**Employees:** 29,000

#### **Competitive Load Served:**

• 180 TWH (electric)

• 650 BCF (natural gas)

#### **Energy Generation: Exelon Generation**

• Generating Capacity: 32,500 MW

#### **Competitive Energy Sales: Constellation**

- 175,000 business & public sector customers
- More than 2 million residential customers
- Wholesale sales, dispatch, and delivery from Exelon's 33 GW power generation portfolio

#### **Transmission & Distribution: BGE, ComEd, PECO**

- 6.6 million electric customers
- 1.2 million natural gas customers

NYSE Ticker Symbol: EXC Headquarters: Chicago, IL



One of the nation's leading competitive power generators, with approximately \$27.4 billion in annual revenues. The Exelon family of companies participates in every stage of the energy business, from generation to competitive energy sales to transmission to delivery.





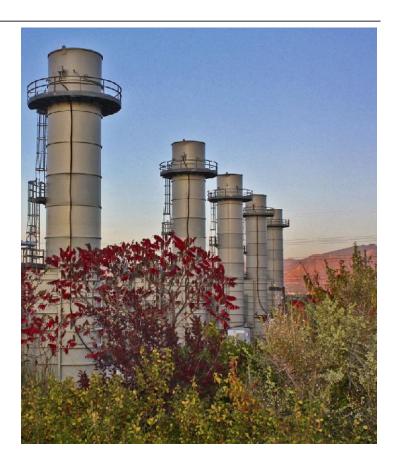
### Sustainable Excellence

The Energy Industry is rapidly changing

We Recognize the need to grow and to diversify the company

Making targeted investments in core markets and promising technologies with potential to reshape the energy landscape.

- Combined Heat-Power Units
- Efficiency Projects (Coal conversions)
- Fuel Cell Technology (Bloom Energy)
- CNG as transportation fuel
- LNG Exporting
- Battery Technology
- Solar Power





## Helping Customers Manage Total Energy Cost

Manage your price and lower your quantity under a strategic time frame.

Energy Cost = (Price x Quantity) Time











#### **PRICE**

Electricity & Natural Gas Procurement Strategies **QUANTITY** 

Energy Efficiency Programs
Load Response\*
On-site Generation

#### TIME

Multi-Year Commodity Contracts
Long-Term Power Purchase
Agreements

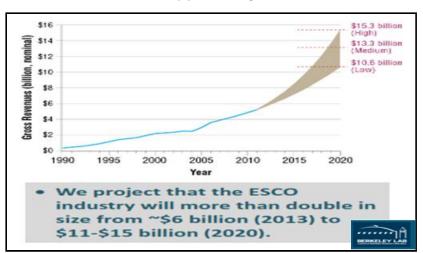


<sup>\*</sup>Load Response is offered by CPower Corp. through a strategic alliance with Constellation.



## **Market Opportunity & Drivers**

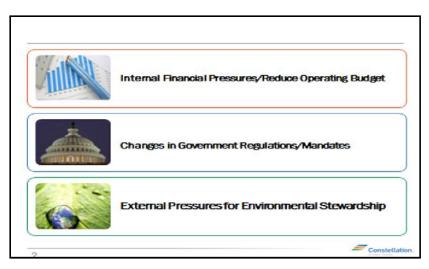
#### **Market Opportunity**



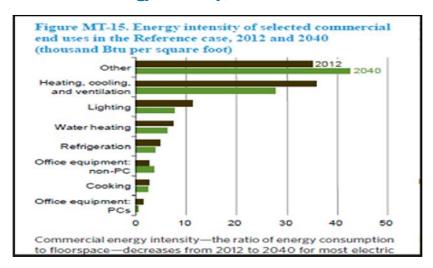
#### **Available Vehicles For Payment**

- Cash
- Partial Cash
- Term Loan
- State/Local Bond
- Lease
- Performance Contract
- PPA
- PACE
- Other?

#### **Drivers**



#### **Energy Intensity, EIA**

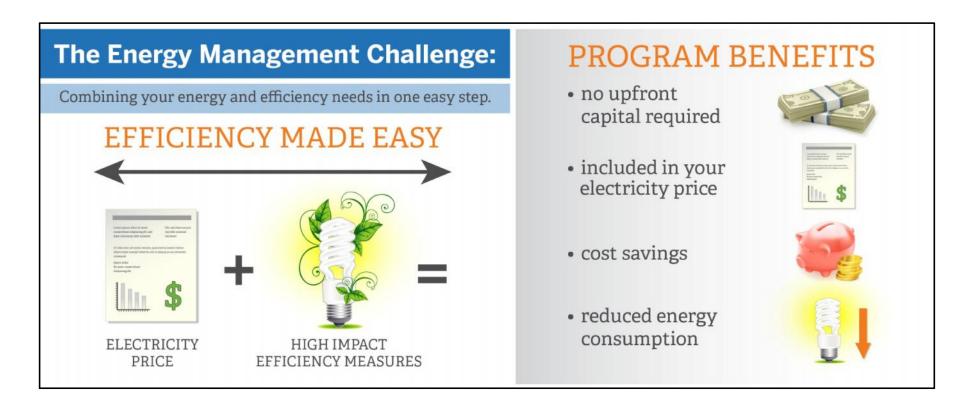




## **Efficiency Made Easy (EME)**

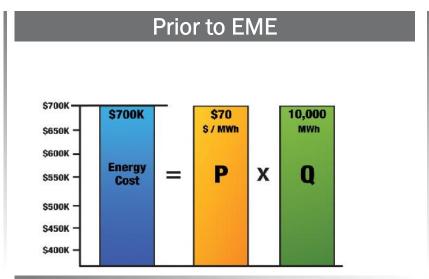
Efficiency Made Easy allows businesses to implement energy efficiency measures without a capital expenditure.

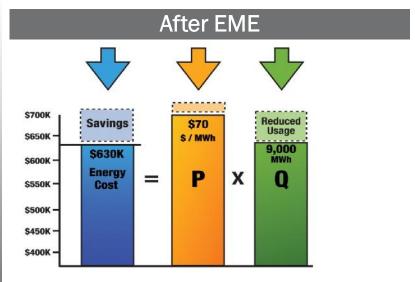
The costs of efficiency measures are a fixed price line item and are reflected on the electricity bill.

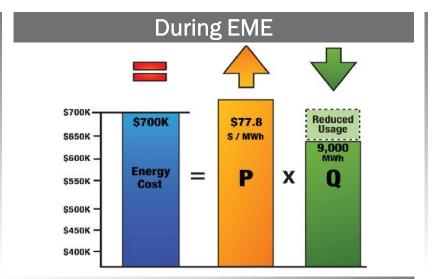




## **Sales Approach: EME – How Does It Work?**







### **Benefits Summary**

- Energy Savings
- Quantity Reductions
- Warranty Savings
- Maintenance Savings
- Greenhouse Gas (GHG) Savings
- No Upfront Capital Needed



## **Sales Approach: EME – Customer Example**

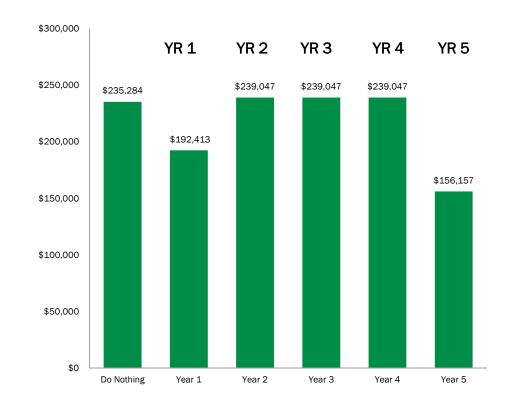
Customer's contract does not expire until June 2016, however they sign the EME agreement in October 2015.

**Year 1** – Customer's costs are reduced by \$42,000 since 8 months of savings are realized after construction.

**Year 2-4** – Costs go back to historic levels once EME Price kicks in.

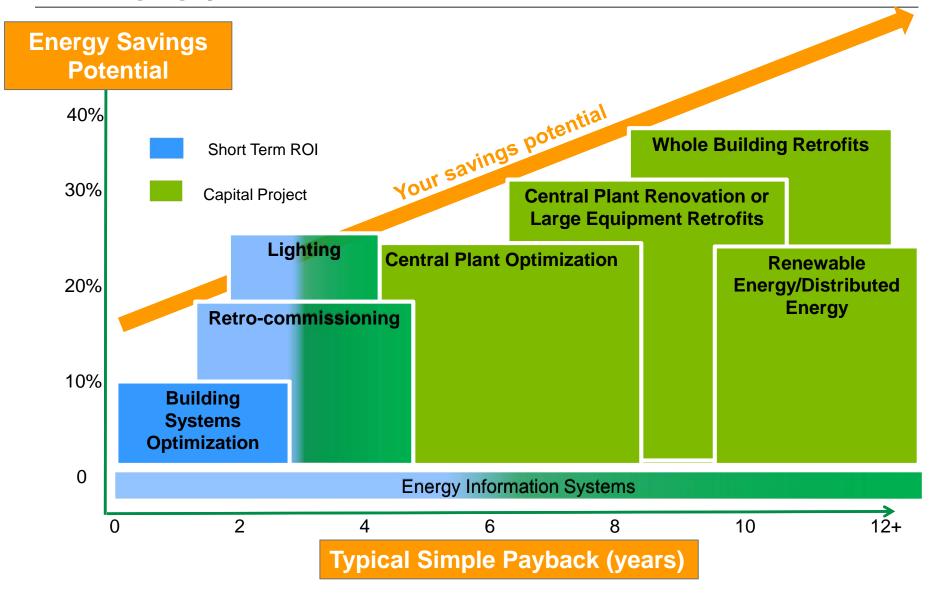
**Year 5** – Costs are permanently reduced after 3 year contract

Implication: If customers are in long-term supply agreements, EME can be used to lower costs immediately without CapEx





# The Spectrum of Energy Efficiency Solutions: typical ranges of savings and simple paybacks





## **Energy Efficiency Technologies**



#### **Nater Conservation**

- Ultra-low flow toilets
- Ultra-low flow urinals
- Low flow faucet aerators
- Low flow showerheads
- Groundwater irrigation
- Laundry Ozone systems
- Leak detection systems



#### **Lighting System Upgrades**

- Occupancy based redesign
- Direct/indirect systems
- Intelligent lighting system controls
- High efficiency re-lamp and re-ballast
- LED Applications
- Street and traffic lighting upgrades
- Incandescent to fluorescent conversion
- Parking area lighting upgrades



## **Building Automation System Upgrades**

- Enhance existing systems
- Complete new DDC systems
- Unoccupied setback control
- Integration of multiple systems
- Remote access and monitoring
- Efficient operation algorithms
- Outside air control strategies

#### **Building Envelope**

- Window replacement
- Roof improvements/replacements
- Stack effect mitigation
- Crack repair/weather-stripping
- Window solar film



#### **HVAC System Upgrades**

- New air handling system installations
- Economizer / HVAC Damper
- Zone isolation
- Constant volume to variable air volume conversions
- De-stratification fans

#### **Miscellaneous**



- High efficiency motors
- Kitchen exhaust hood control systems
- Variable speed drives on many systems
- Elevator controllers
- Instantaneous hot water heaters
- Retro / Continuous commissioning
- Appliance / plug load timers

#### **Central Plants**

- Steam to hot water conversion
- District steam & HW systems
- New chiller & boiler installations
- New cooling tower installations
- Primary/secondary systems
- Heat recovery systems
- Variable speed pumping systems
- Steam trap replacements

#### **Renewable Energy**

- On-site Solar Energy Systems
- Geothermal system
- Heat pump installation
- Wind energy
- Alternative fuel conversion





## **Opportunity Qualification - Market Segments**

Understanding how to qualify a customer for the efficiency measures that Constellation is willing to fund is NOT something we need to train you on.

#### What *i*s important to keep in mind are the following:

- Understanding how the customer buys power and/or gas
- Making sure the customer hasn't had any major upgrades in the past 5 years that coincide with your ECMs
- Leasing Structure / Ownership of the facility
- Ensure the customer uses energy for significant hours during the year
- Preferred market verticals
  - Hotels
  - Offices
  - Private Higher Ed
  - Commercial Offices
  - Manufacturing Facilities

- Supermarkets
- Retail
- Fast Food/10 or More Sites
- Hospitals & or Extended Care
- Big Box Retail



### **Opportunity Qualification – Rules of Thumb**

#### **Primary Criteria**

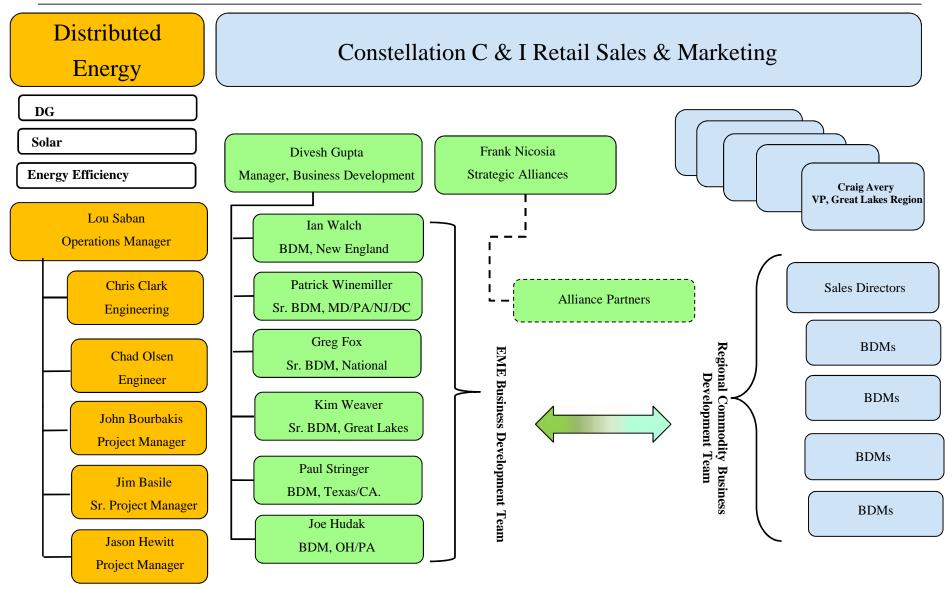
- Electricity budget:
  - \$100,000 (single site), approx 1,000,000 kWh/yr
  - > \$250,000 (multiple sites), approx 2,500,000 kWh/yr
- Credit Rating ≥ BB
- In A Competitive Electricity market unless 20,000 dTH of Natural Gas/Yr.
- Not under contract with a competitor for more than two years from anticipated project completion date.

#### **Secondary Criteria**

- Energy Star rating (if known) 65 or below
- If multiple sites, avg building size ≥ 20,000 ft2; (on case by case basis)
- Access to financial incentives for energy efficiency (utility rebates, tax credits...)
- Average Operating Hours > 3500 Annually (5 x 12; 7 x 10)



## **Efficiency Made Easy Team**





### **Simplified Business Model:** Customer + CNE + Alliance Partner

#### **Customers:**

- Revenue Streams or "Offsets"
- Fund Facility Upgrades/ECMs.
  - No budgeting required!
- Manage Total Energy Costs

#### **Strategic Alliance:**

- Sell their Products/Services & help reduce customers' overall energy spend/costs
- "Offsets" to Fund/Reduce ROI of Products
- Differentiate from Competitors.
- Additional New Account Access

#### **Constellation:**

- Close deals unable to without Alliances:
  - Products/Technology
  - Relationships
- Additional/New Account Access
- Leverage Alliances' Knowledge of Customer Facility/Processes



Revenues/Offsets from CNE Programs

Products/Solutions that Facilitate CNE Programs



ALLIANCE PARTNER

Funding for Energy Products & Services

## **Frequently Asked Questions**

# Who handles the Energy Conservation Measures (ECM) Implementation?

The contract is between Constellation and the customer, and Constellation or one of it's Partners is responsible for the complete turn-key implementation of the ECM.

## What if the customer is already on a contract?

If the contract is with Constellation then we can consider many options such as a blended contract or including the project cost into a renewal.

If the contract is NOT with Constellation then we will consider a delayed start contract with implementation of the ECM before the contract start.

## **What Is The Minimum Project Size**

\$50,000

Projects have ranged from <\$50,000 to as large as \$2MM

Qualifications For Power and or Natural Gas Consumptions

**Competitive Markets** 

## What term restrictions are on the contract?

The contract term is driven by the project cost and customer's needs – Constellation is willing to include an efficiency project into a supply contract with a term of 2 to 5 years.

The contract start date can be up to 2 years into the future.

## Is this going to reduce my margin/revenue?

Ability to increase your revenue by increasing fees for greater services and support

Differentiating your sale - add more value by solving customers problem, need, want, goals, and objectives.

## Does this lengthen my sales cycle?

The sales process for EME can move as quickly as we can get information from a customer, and get access to evaluate their usage and equipment.

Can pull forward a decision with delayed start.

Flexibility based on product structure with EME overlay



## **Investing in Emergent Technologies**

Constellation Technology Ventures (CTV) is the venture investing arm of Exelon. CTV invests in growth stage technology companies throughout the energy industry, building value by providing growth capital, management expertise and connectivity to the broad and diverse Exelon commercial enterprise.



#### Our Mission

The mission of Constellation Technology Ventures is to drive innovation through Exelon by investing in venture stage energy technology companies that can provide new solutions to Exelon and its customers. CTV seeks to:

- Be a leader among merchant energy companies in the funding of new energy technologies;
- Find innovations that have the potential to complement or disrupt Exelon's core business and add new solutions to the commercial product suite, making Exelon's current businesses more competitive, and diversifying the business mix; and
- Create future business opportunities in emerging energy markets.

CTV invests across the energy technology landscape and in companies at various stages of development. CTV adds value to its portfolio companies beyond its capital investment by actively working with company leadership to develop avenues to deploy the company's products within Exelon businesses and in the energy markets generally. CTV initial investment size ranges between \$1M and \$10M.

#### http://technologyventures.constellation.com



## **CTV Portfolio Company Dashboard**

Company	Description	Development Stage
લ્કુ	Enterprise software for managing and optimizing energy data for utilities	Mid: Commercial product available
Ogin	Shrouded wind turbine technology	Early/Mid: Commercial product in validation
coolplanet	Biomass to reformate/biochar conversion technology	Mid/Late: Approaching construction of first commercial plant
<b>⊘</b> ⊘ssess	Rapid mobile thermal and spacial imaging	Early: First commercial product currently being marketed
@PROTERRA	Electric bus for public and private mass transit	Mid/Late: Commercial product available; currently scaling growth
VGRID ENERGY SYSTEMS	Multi-fuel distributed generation	Early: Technology is under development
eCURV	Digital demand queuing for buildings	Early: First commercial product currently being marketed
Powerhouse Dynamics	Building management system for small to medium businesses	Mid: Commercial product available
-chargepoin+:	Electric vehicle service equipment and network	Late: Commercial product available with strong market penetration
AQUION ENERGY	Aqueous hybrid ion energy storage	Late: Commercial product available; increasing market penetration
stem	Energy storage appliance for demand management	Late: Commercial product available; increasing market penetration
bidgely	Residential meter load disaggregation	Mid: Commercial product available

