



ZECJ-FIN-21

PUBLIC

# Constellation Energy

## Positioned to Capture Market Opportunities



The way energy **works.**<sup>™</sup>

**Ed Quinn and Max Duckworth**

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# Forward Looking Statements Disclosure

Certain statements made in this presentation are forward-looking statements and may contain words such as “believes,” “anticipates,” “expects,” “intends,” “plans,” and other similar words. We also disclose non-historical information that represents management’s expectations, which are based on numerous assumptions. These statements are not guarantees of future performance and are subject to risks and uncertainties that could cause actual results to be materially different from projected results. These risks include, but are not limited to: the timing and extent of changes in commodity prices and volatilities for energy and energy-related products including coal, natural gas, oil, electricity, nuclear fuel and emissions allowances and the impact of such changes on our liquidity requirements; the liquidity and competitiveness of wholesale and retail markets for energy commodities; the conditions of the capital markets, interest rates, foreign exchange rates, availability of credit facilities to support business requirements, liquidity and general economic conditions, as well as Constellation Energy’s and BGE’s ability to maintain their current credit ratings; the effectiveness of Constellation Energy’s and BGE’s risk management policies and procedures and the ability and willingness of our counterparties to satisfy their financial and performance commitments; losses on the sale or write-down of assets due to impairment events or changes in management intent with regard to either holding or selling certain assets; the ability to successfully identify, finance and complete acquisitions and sales of businesses and assets, including generating facilities, and new nuclear generation development projects; the effect of weather and general economic and business conditions on energy supply, demand, and prices, and customers’ and counterparties’ ability to perform their obligations or make payments; the ability to attract and retain customers in our NewEnergy activities and to adequately forecast their energy usage; the timing and extent of deregulation of, and competition in, the energy markets, and the rules and regulations adopted in those markets; regulatory or legislative developments federally, in Maryland, or in other states that affect energy regulation, the price of energy, transmission or distribution rates and revenues, demand for energy, or that would increase costs, including costs related to safety or environmental compliance; the ability of our regulated and non-regulated businesses to comply with complex and/or changing market rules and regulations; the ability of BGE to recover all its costs associated with providing customers service; operational factors affecting, our generating facilities, BGE’s transmission and distribution facilities or our other commercial operations, including weather-related damages, unscheduled outages or repairs, unanticipated changes in fuel costs or availability, unavailability of coal or gas transportation or electric transmission services, workforce issues, terrorism, acts of war, catastrophic events, and other events beyond our control; the impact of industry consolidation; the impact of increased energy conservation and use of renewable energy; the actual outcome of uncertainties associated with assumptions and estimates requiring judgment when managing our business, applying critical accounting policies and preparing financial statements, including factors that are estimated in determining the fair value of energy contracts, such as the ability to obtain market prices and in the absence of verifiable market prices, the appropriateness of models and model inputs (including, but not limited to estimated contractual load obligations, unit availability, forward commodity prices, interest rates, correlation and volatility factors); changes in accounting principles or practices; and cost and other effects of legal and administrative proceedings and other events that may not be covered by insurance, including environmental liabilities and liabilities associated with catastrophic events. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Please see our periodic reports filed with the SEC for more information on these factors. These forward-looking statements represent estimates and assumptions only as of the date of this presentation, and no duty is undertaken to update them to reflect new information, events or circumstances.

# Constellation Energy Overview

Wholesale Competitive Supply:  
**NewEnergy**

Retail Competitive Supply:  
**NewEnergy**



Generation:  
**Generation Group**



Transmission:  
**BGE**



Distribution:  
**BGE**

## Constellation Generation Group

- Approximately 12,000 megawatts of owned, low cost, efficient generating capacity throughout the United States

## Constellation NewEnergy

- Leading supplier of innovative energy products and solutions to more than 30,000 wholesale and retail electric and natural gas customers in competitive markets across the country

## Baltimore Gas and Electric

- Transmission and distribution utility for more than 1.2 million electricity customers and 640,000 natural gas customers in Central Maryland



# Generation & NewEnergy: Platform for Growth

## BROAD MARKET REACH

- North American Market
- Demand Side & Supply Side
- Wholesale & Retail
- Load Serving & Origination
- Large & Small Businesses
- Electric & Gas Supply
- Financial and Physical
- Sustainable Energy Solutions
- Private and Public Sector

## DEEP DISTRIBUTION

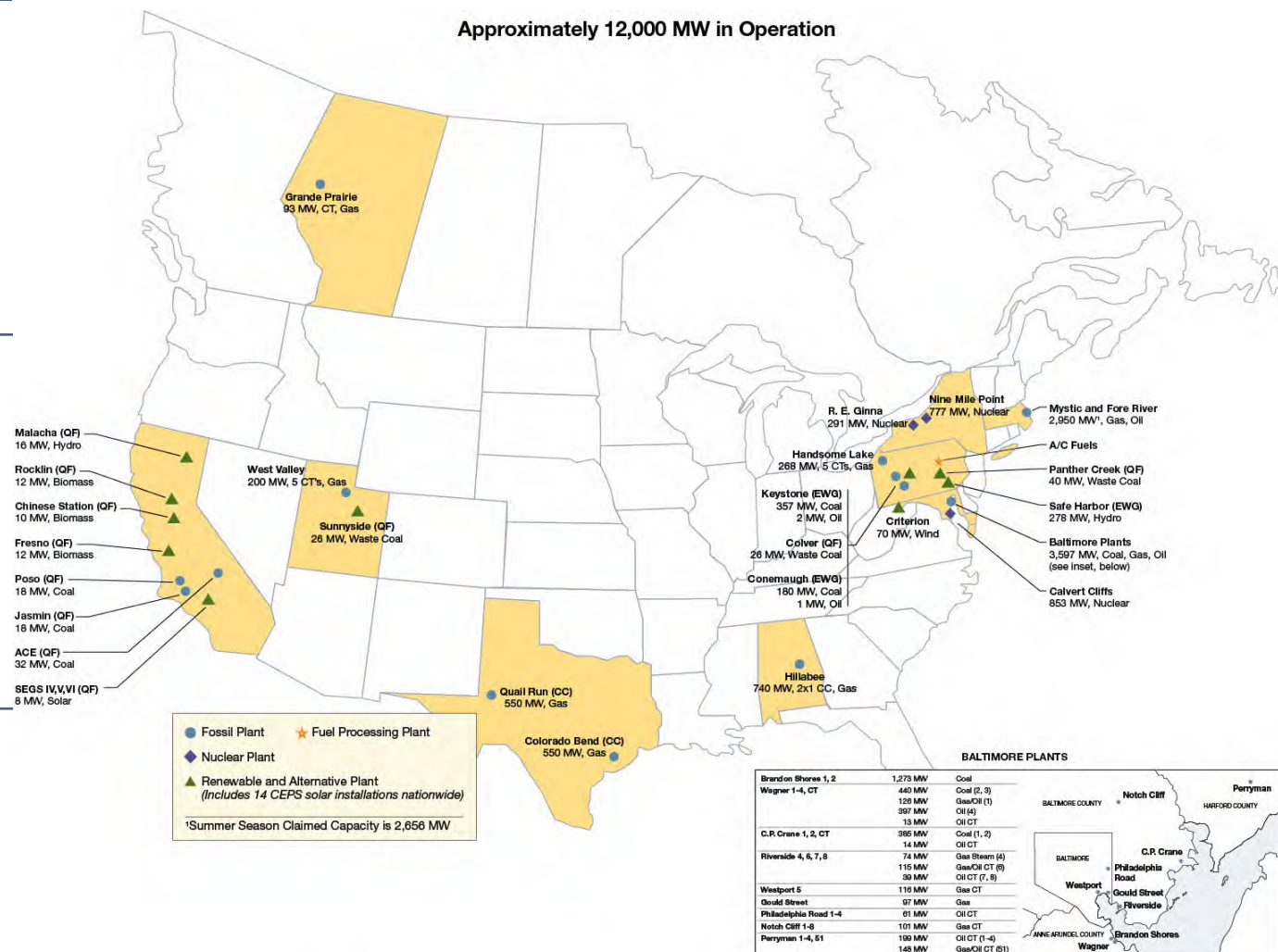
- Multiple Sales Channels
- 280 Salespeople
- 15 Sales Offices
- 30,000 MW with customers
- 350 BCF with customers
- 34 states
- 28,000 retail C&I customers
- 150,000 accounts
- 100,000 residential customers
- 64 Utility and Co-Op customers

## WIDE RANGE OF PRODUCTS

- Power & Gas Supply
- Demand Side Management
- Renewable Energy Projects
- Demand Response Programs
- Renewable Energy Certificates
- Energy & Budget Management
- Price Risk Management
- On & Off-site power generation

## Geographically Diversified Asset Portfolio

Approximately 12,000 MW in Operation



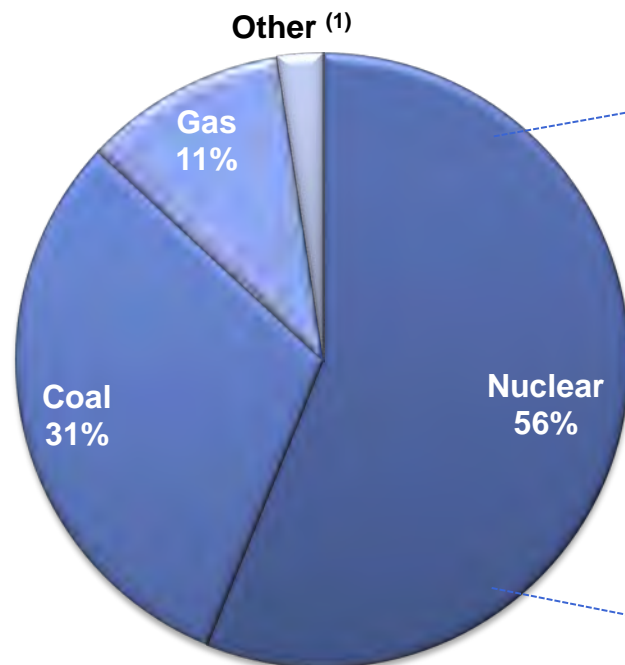
# Investment Drivers

- Balanced **generation** and **load** profile mitigates commodity and capital risk exposure
- **Hedging** program applied to generation coupled with NewEnergy **load contracts** protect investors against near-term earnings volatility while allowing for participation in longer-term recovery of energy prices
- **Clean** generation footprint relatively advantaged with respect to environmental and climate regulation
- **NewEnergy** customer-facing business **growth** potential driven by ability to sell multiple products and services to diverse client base across the entire country
- **Diversified load-serving platform** includes wholesale and retail customers across a broad geographic footprint (not restricted to “competitive” states), which reduces exposure to individual regulatory regimes, market rule changes, temperature effects, etc.

Near-term and longer-term trends should present opportunities for Constellation to increase shareholder value

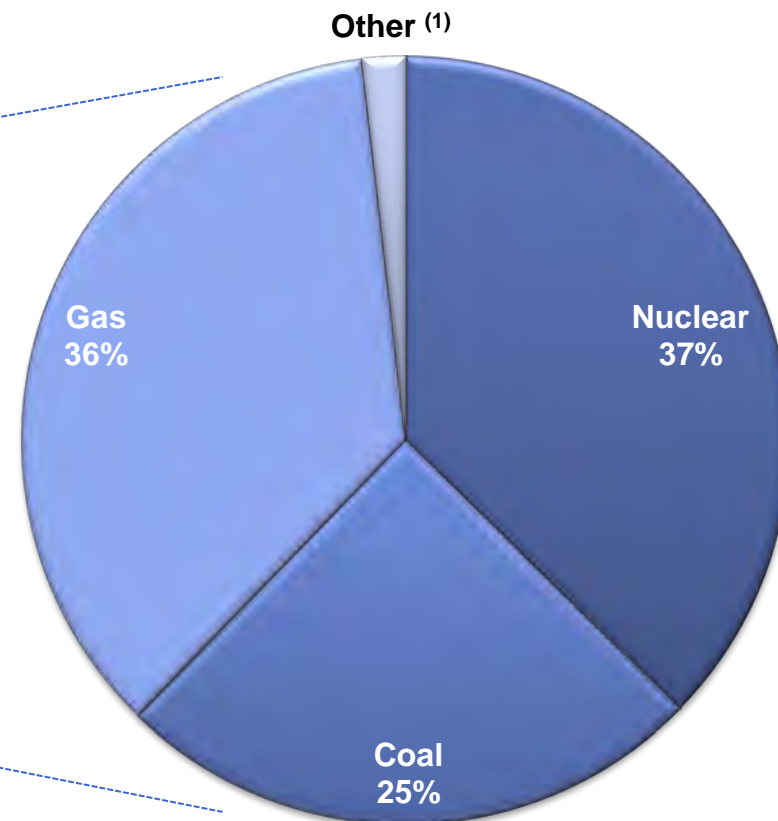
# Generation Overview

## 2010 Generation Output



2010 Actual Output = 45 TWh

## 2011E Generation Output

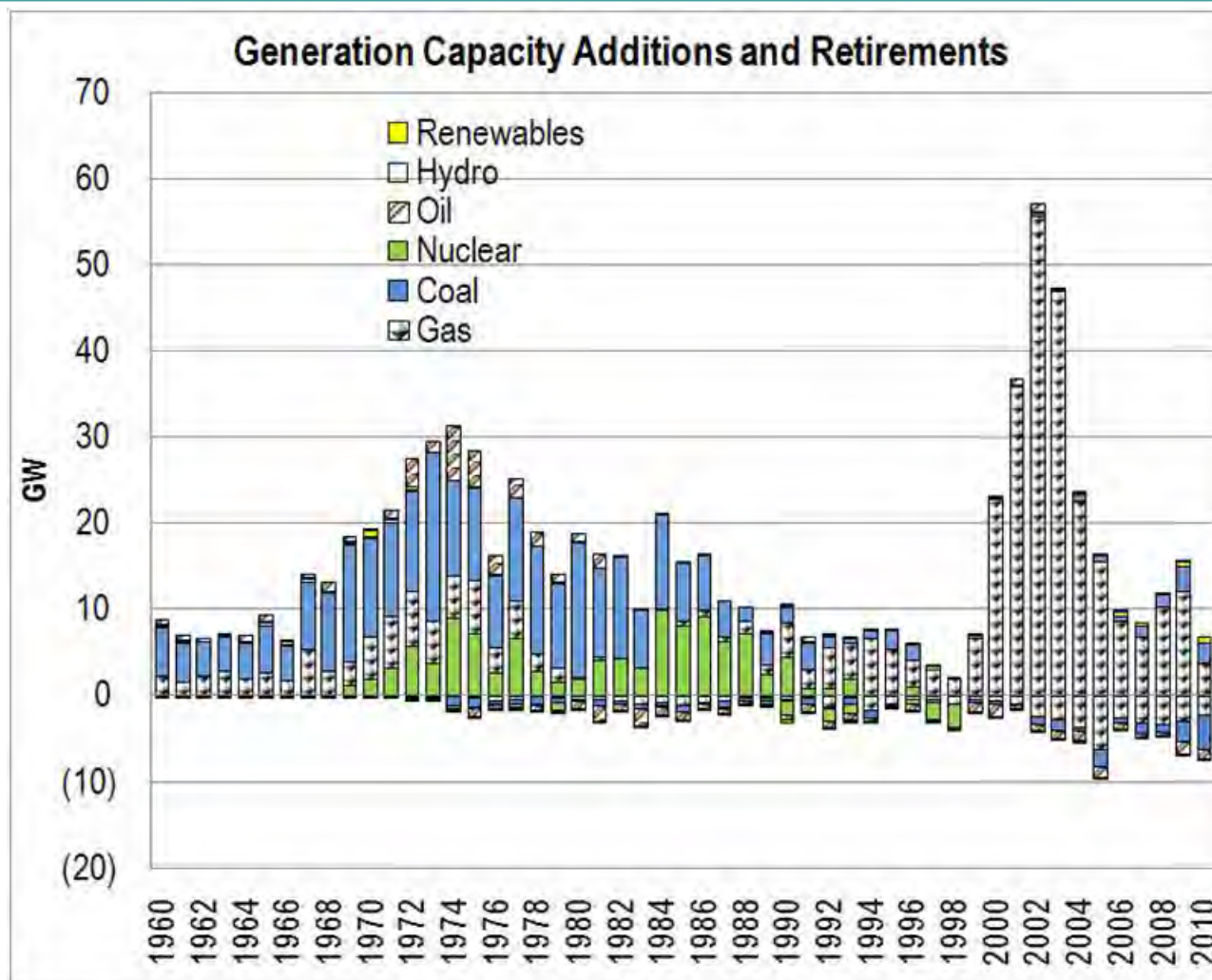


2011E Output = 67 TWh

Over 2010, Constellation added to its generation base and further improved its environmental footprint

(1) Includes oil, biomass, hydro, wind and other output which comprises less than 3% of the total

# Historical US Capacity Additions and Retirements



- Electric industry has experienced investment cycles favoring certain generator technologies
- New additions to the stack are currently in a down trend, while retirements have been increasing

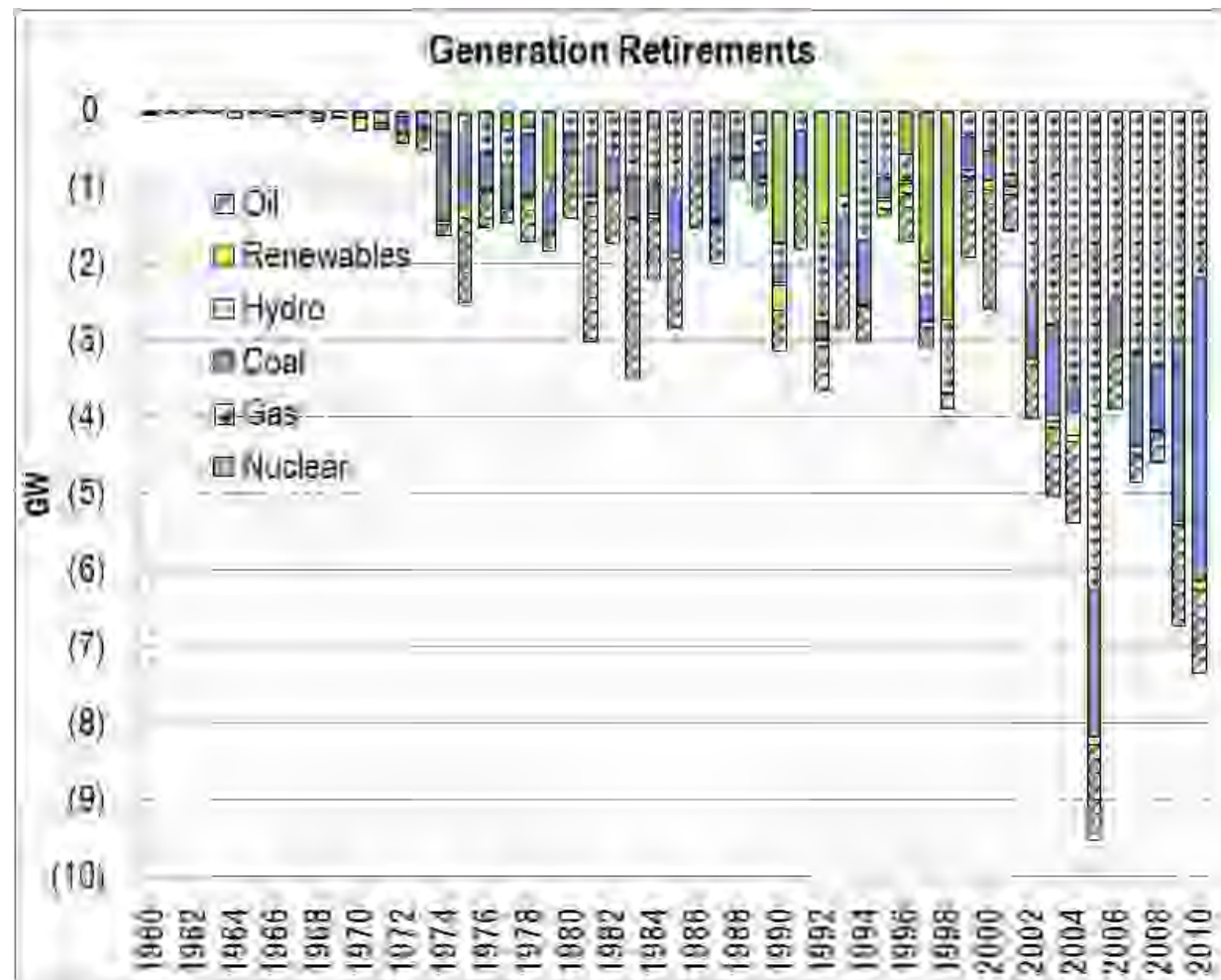


# Market Price Trough is Accelerating Retirements

A number of industry sources forecast that environmental regulation will result in roughly 25 to 75 GW of coal plant retirements, and an additional \$100 to \$200 billion of industry investment

- Bernstein – 67 GW
- Brattle Group – 50 - 70 GW
- Black & Veatch – 52 GW

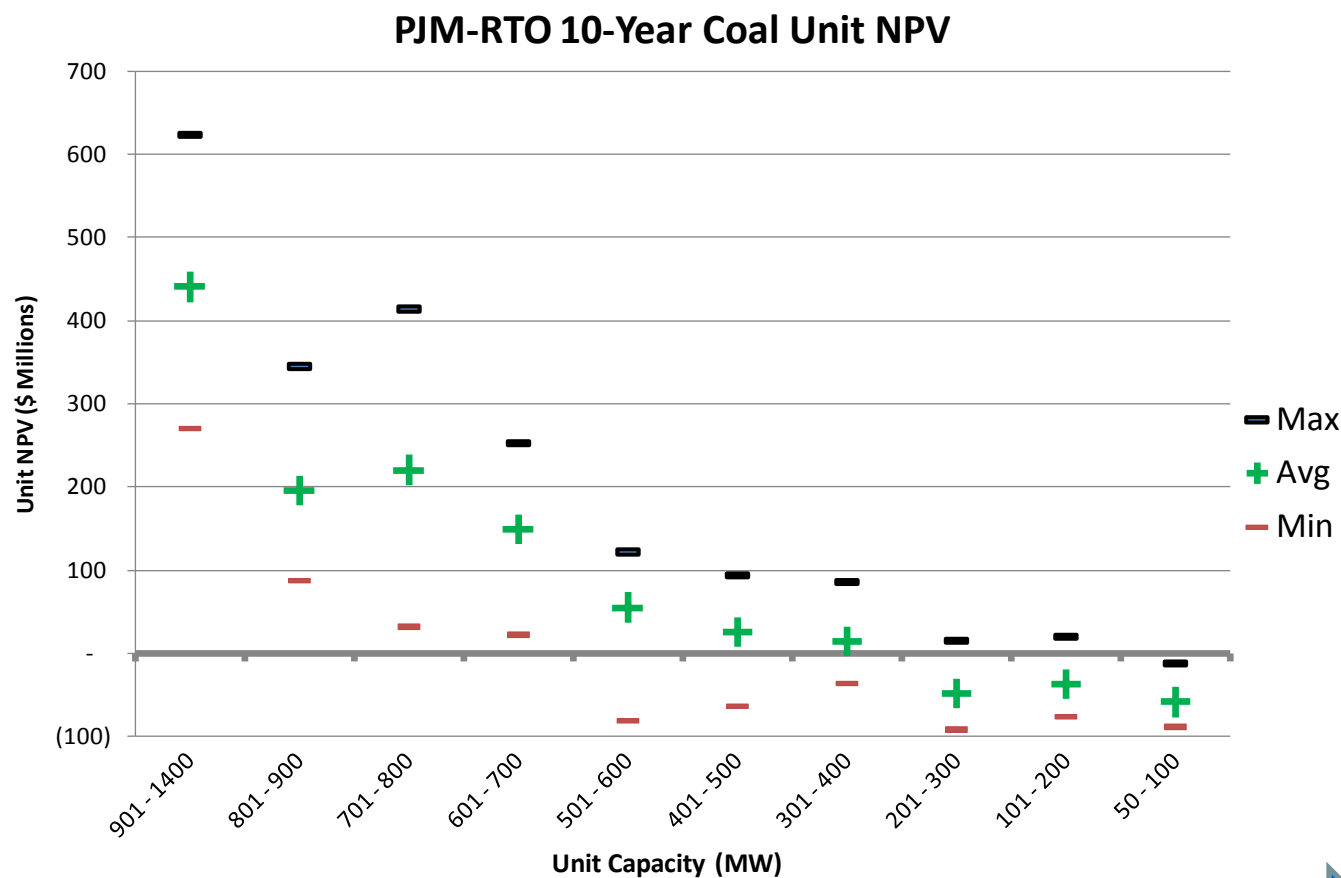
PJM market monitor reports 7 GW of coal units earned gross margins below cash going forward costs (labor, fixed O&M, and amortized capital cost) in 2009



- More inefficient oil- and gas-fired generation retired after the overbuild in the early 2000s
- Now, the market price trough is starting to challenge coal generation



# Smaller Coal Units Face Uncertain Future



**Unit Size:**

Largest

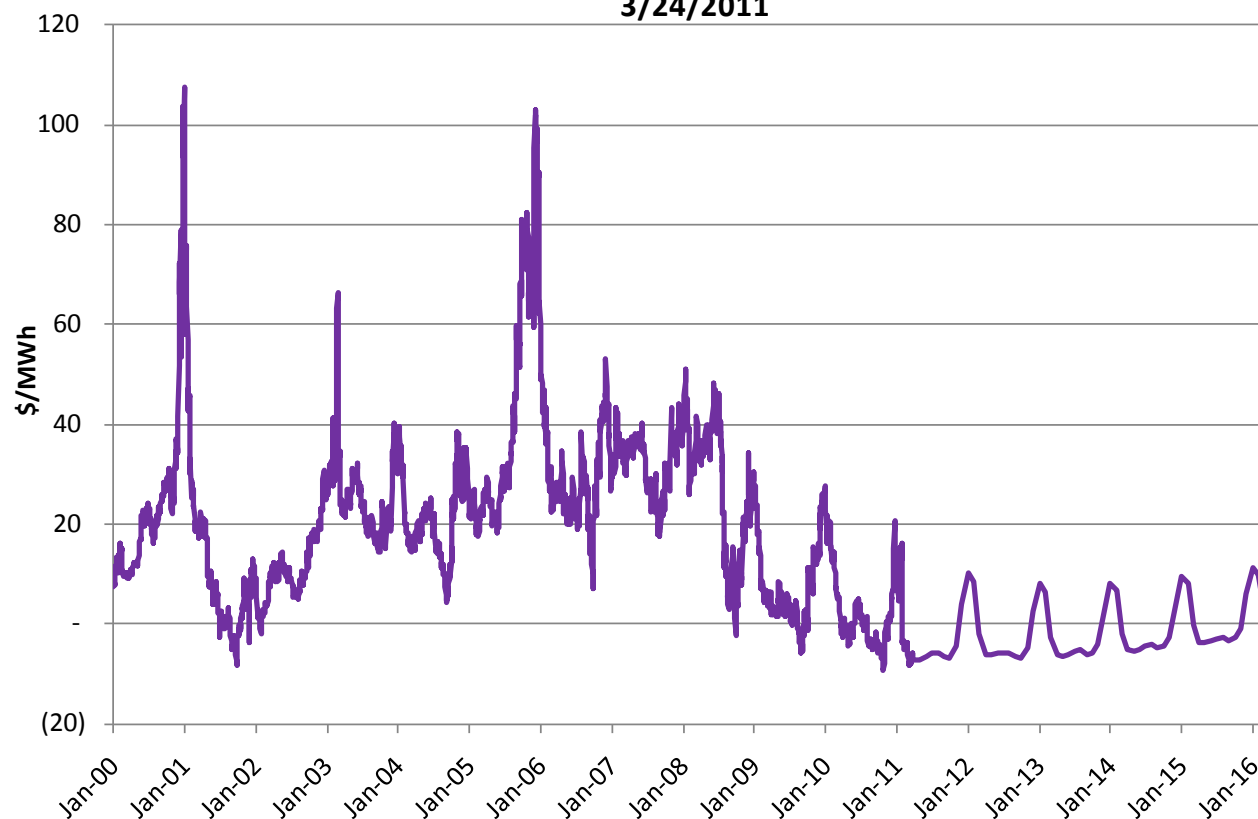
Smallest

- Estimate that 27% of PJM coal generation is uneconomical based on current energy and capacity forwards
- Depressed dark spreads and new regulation will serve as the “forcing function”
- Maryland coal generation is less prone to retirement due to prior emission control investments

# Natural Gas Threatens Coal Generation

## MAAC Generation Economics: Combined Cycle vs. Coal

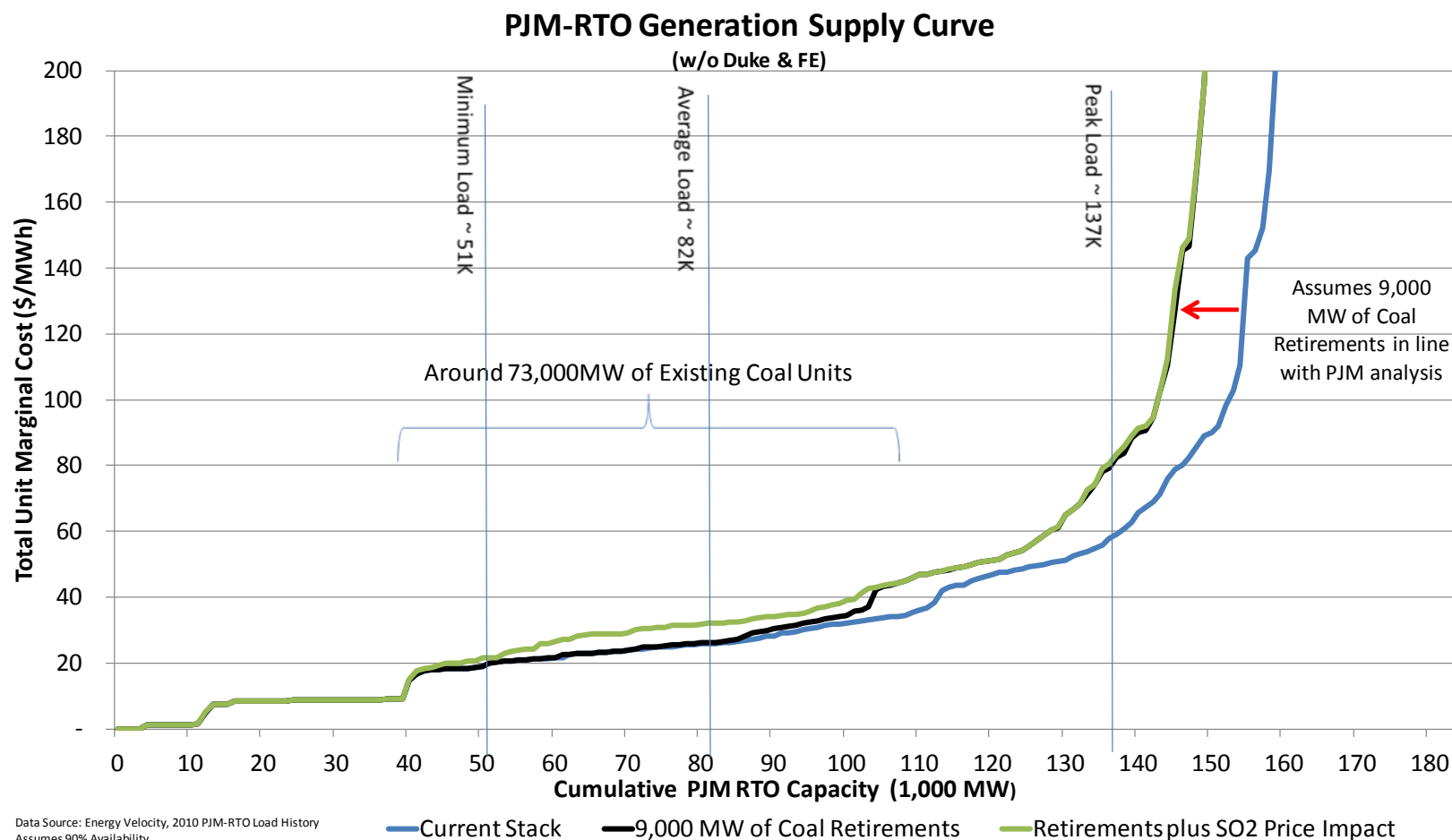
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Transco Zn 6 Non-NY Gas at 7 HR - Delivered PJM NYMEX Coal at 10 HR  
VOM and Emission Costs not included

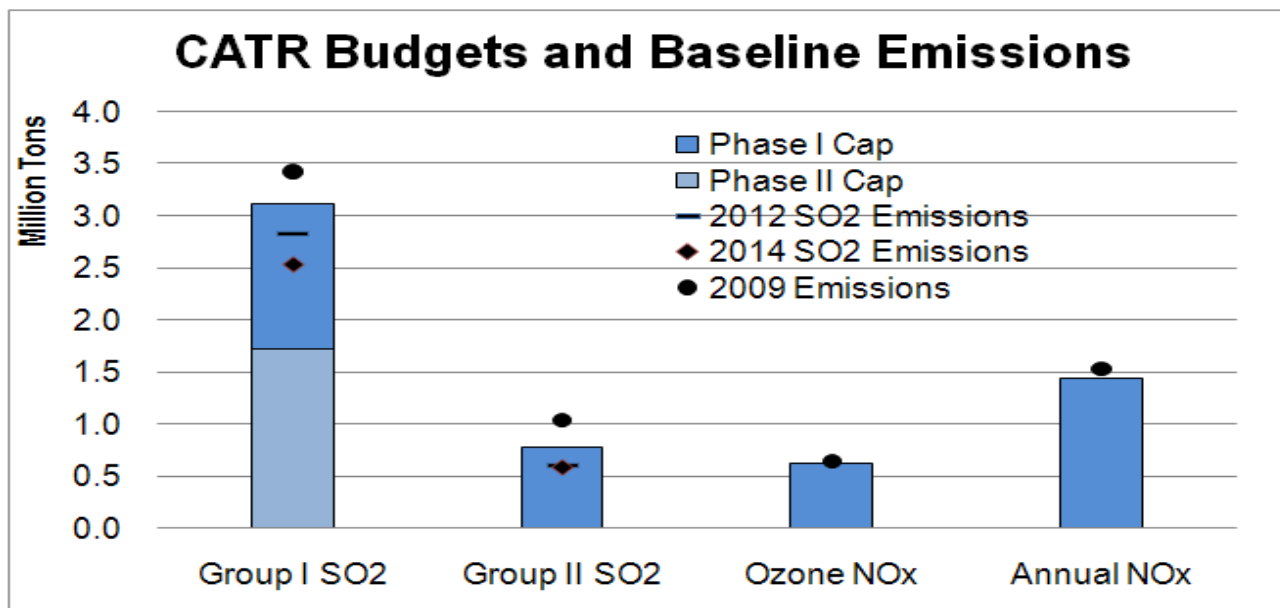
- Coal generation's cost advantage over gas-fired units in a high gas price environment was able to withstand incremental costs and adders
- Current dark spreads have removed this advantage, and something "has to give"

# Illustrative PJM Generation Stack Impact



CATR/MACT-induced retirements, higher emissions adders, and increased VO&M will shift the PJM supply stack higher

# CATR Has Differential Impacts in PJM Footprint

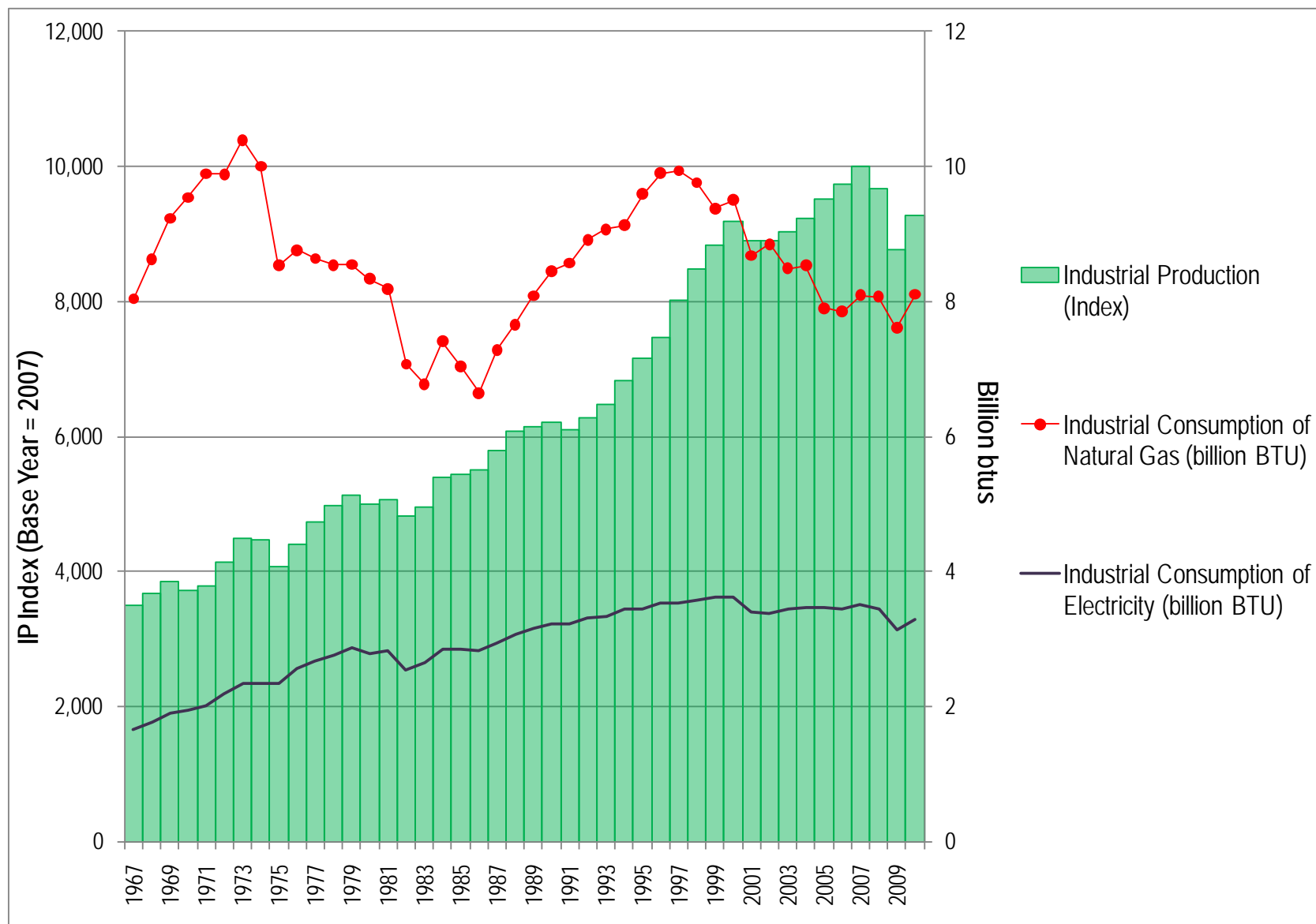


- Only Group I SO<sub>2</sub> cap appears materially binding
  - deepest cuts expected in OH, PA, KY, IN, and GA
- Group II SO<sub>2</sub> caps are roughly equal to historical / projected SO<sub>2</sub> emissions
- NO<sub>x</sub> caps are set at levels to “lock in” recent low emission levels
  - NO<sub>x</sub> prices may still approach marginal control cost levels (1,000-2,000 \$/ton) as compliance players bank tons for potential Phase II cuts due to NAAQS revisions

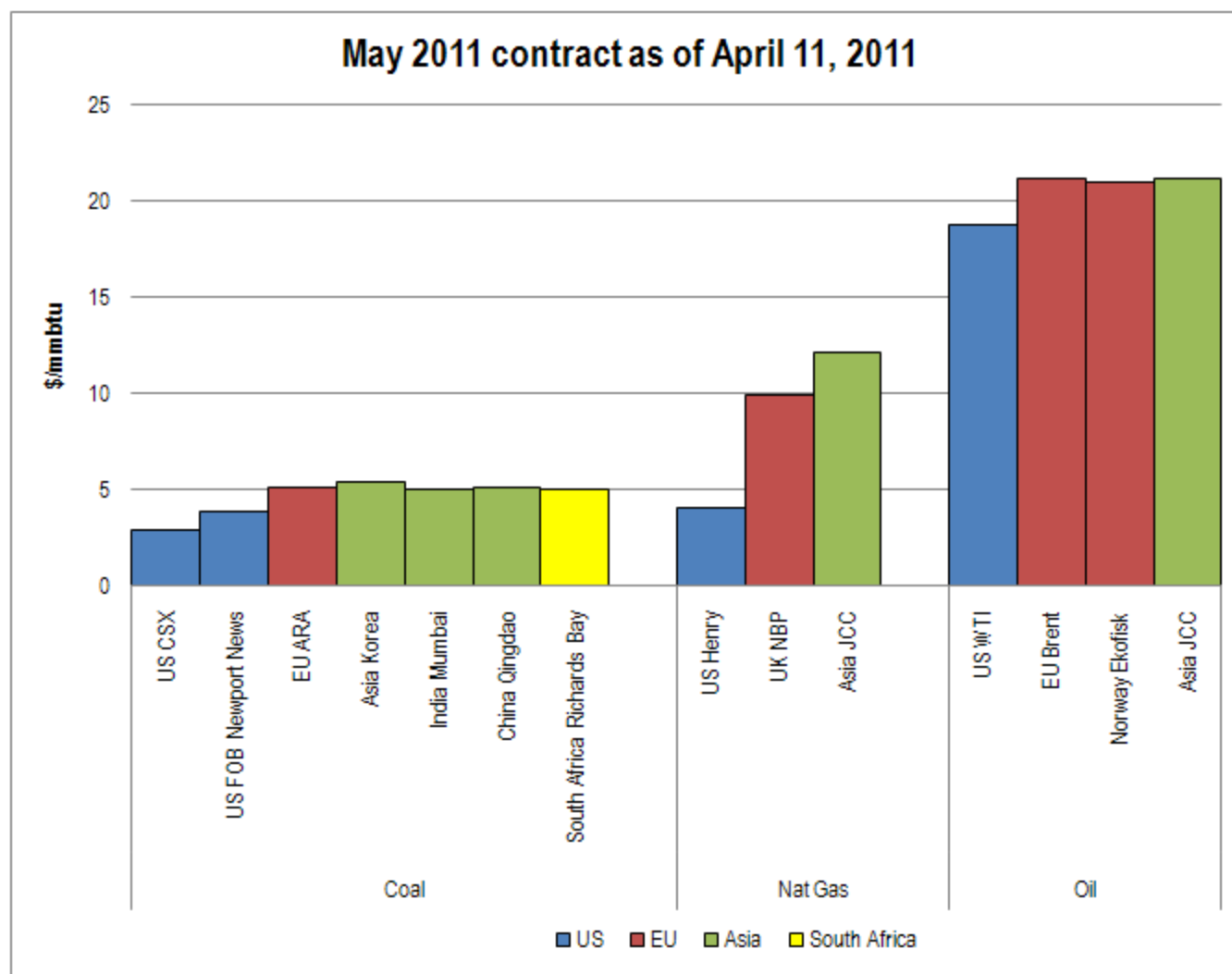
Constellation's coal units are concentrated in Group II and are already subject to Maryland Healthy Air Act (HAA) requirements, providing a relative advantage



# US Industrial Demand Poised for Rebound



# US Energy Cost Advantage May Accelerate Demand Growth



# Generation EPS Sensitivity Analysis

Change in:		Estimated EPS Impact			
<b>Power Price Exposure</b>		<b><u>2012</u></b>	<b><u>2013</u></b>	<b><u>2014</u></b>	<b><u>2015</u></b>
\$ / MWh	(\$5)	(\$0.05)	(\$0.19)	(\$0.25)	(\$0.21)
	+\$1	\$0.01	\$0.04	\$0.05	\$0.04
	+\$5	\$0.05	\$0.19	\$0.25	\$0.21
<b>Dark Spread Exposure</b>					
\$ / MWh	(\$5)	(\$0.15)	(\$0.16)	(\$0.21)	(\$0.22)
	+\$1	\$0.03	\$0.03	\$0.04	\$0.04
	+\$5	\$0.15	\$0.16	\$0.21	\$0.22
<b>Heat Rate Exposure</b>					
MMBTU / MWh	(1)	(\$0.10)	(\$0.22)	(\$0.26)	(\$0.38)
	+1	\$0.10	\$0.22	\$0.26	\$0.38
<b>Capacity Prices</b>					
\$ / MW - day	(\$25)	N/A	N/A	(\$0.13)	(\$0.22)
	+\$25	N/A	N/A	\$0.13	\$0.22

Constellation's hedge profile provides stability to near term earnings and cash flows yet opportunity to capture upside





# NewEnergy Sales Channels and Customer Segments

Leveraging our national platform to meet customer energy needs



## 'Customer' Spectrum



Natural Gas



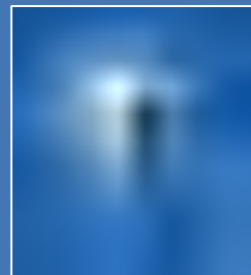
Electricity



Demand Response



Solar

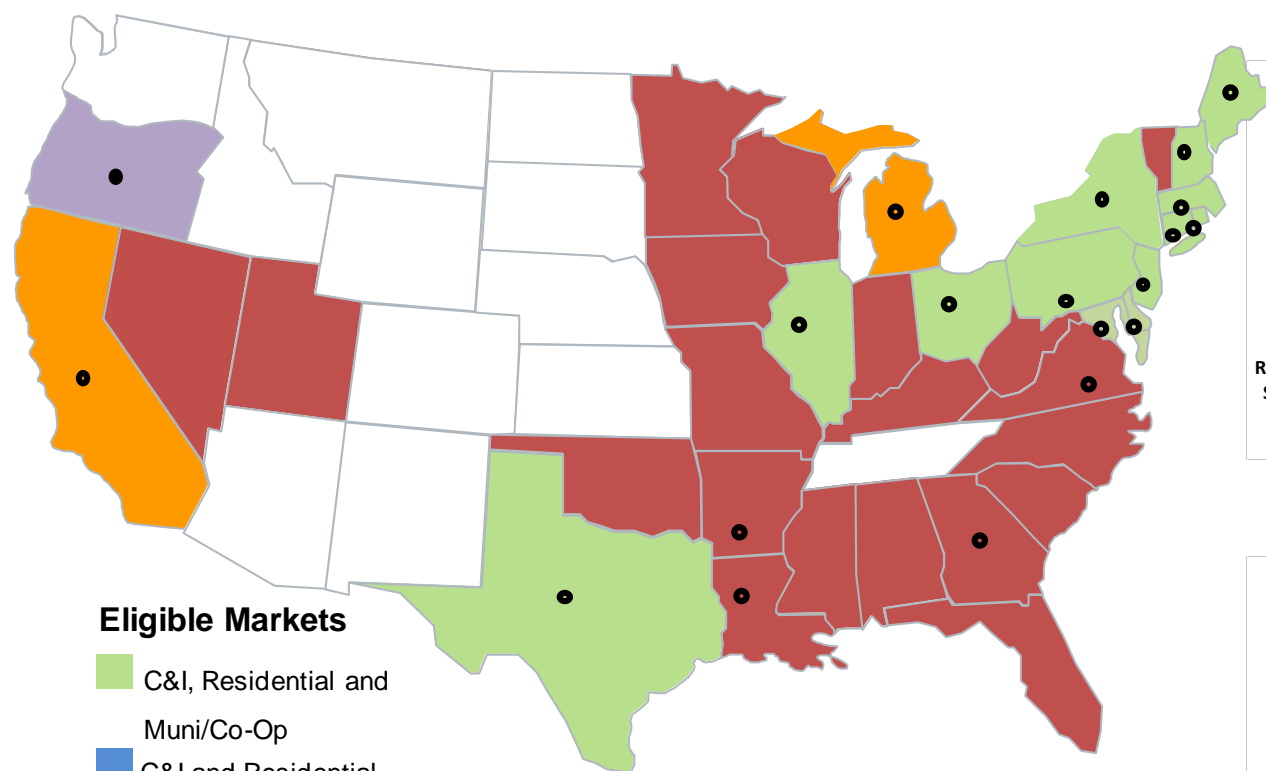


Wind



Energy Efficiency

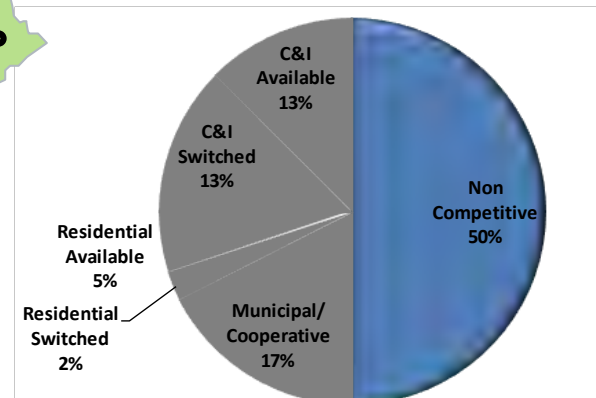
# Power Market Potential and Opportunity



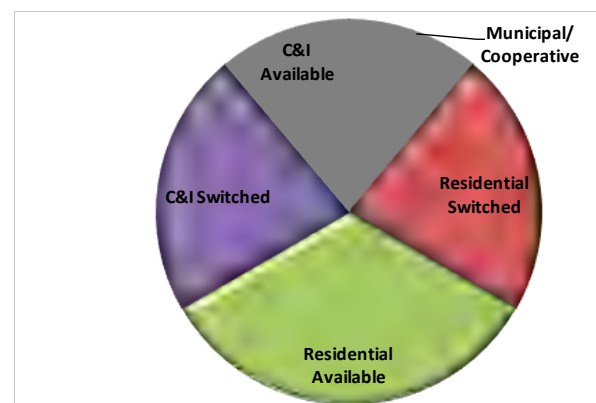
## Eligible Markets

- C&I, Residential and Muni/Co-Op
- C&I and Residential
- C&I and Muni/Co-Op
- C&I Only
- Muni/Co-Op Only
- States with Current CEG Presence

Estimated Total Market = 4,000 TWh <sup>(1)</sup>



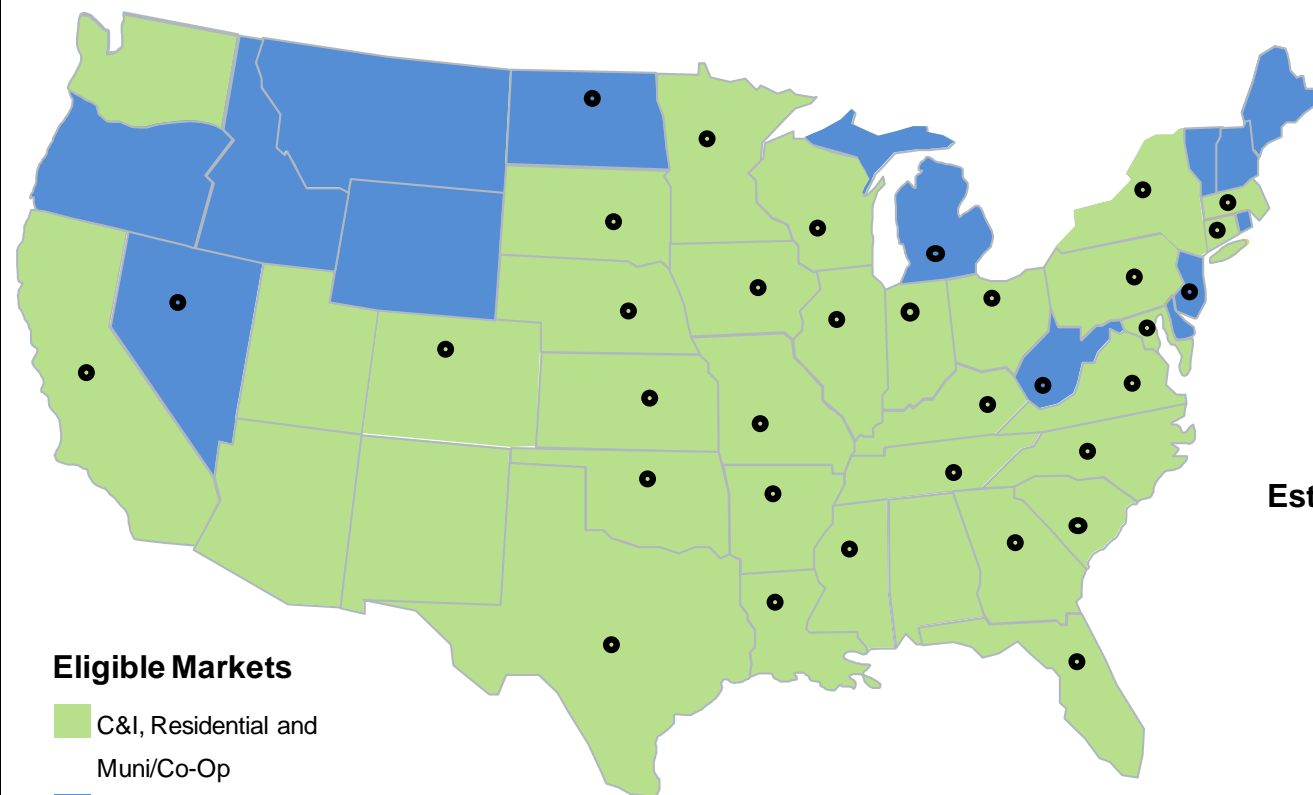
Estimated Gross Margin Potential = \$9B <sup>(2)</sup>



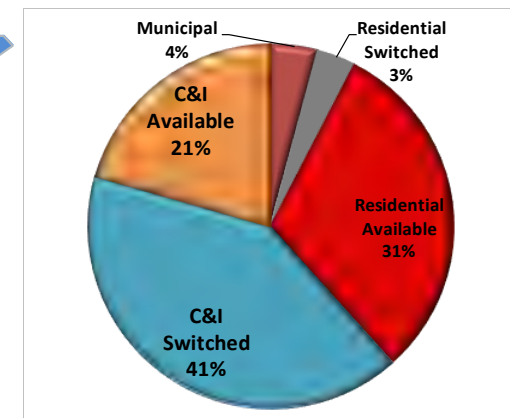
1. Customer class as a % of the total market
2. Estimated GM potential by customer class

- Roughly 1,300 TWh available to serve across utility, C&I and residential channels in competitive markets
- Roughly 700 TWh of muni/co-op available across all markets, with 400 TWh in “non competitive” markets

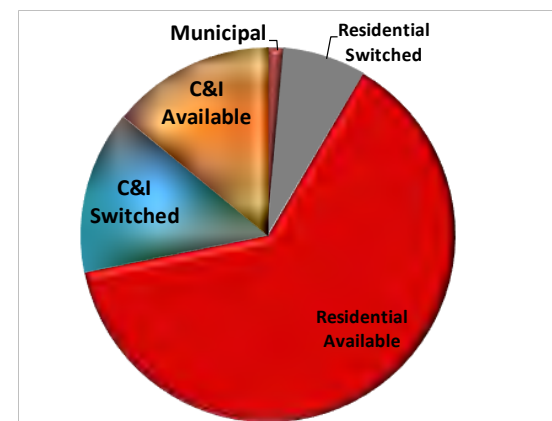
# Gas Market Potential and Opportunity



Estimated Total Market = 14,000 BCF <sup>(1)</sup>



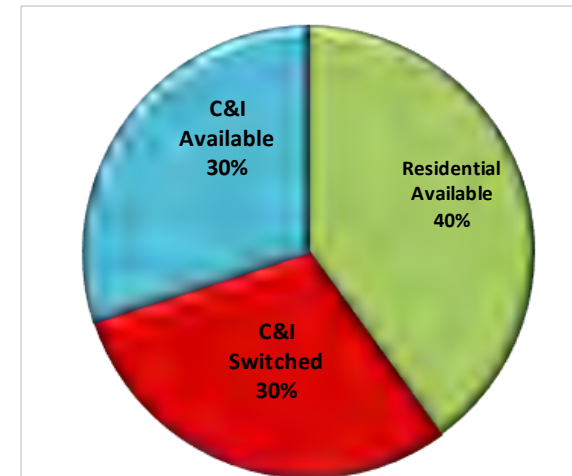
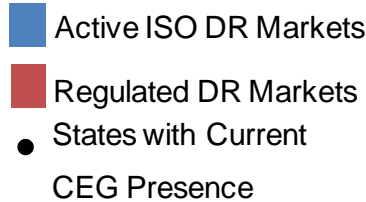
Estimated Gross Margin Potential = \$7B <sup>(2)</sup>



1. Customer class as a % of the total market
2. Estimated GM potential by customer class

- All states are competitive markets, with an estimated total market size of 14,000 BCF
- Total residential opportunity of 5,000 BCF and C&I opportunity of 9,000 BCF

●



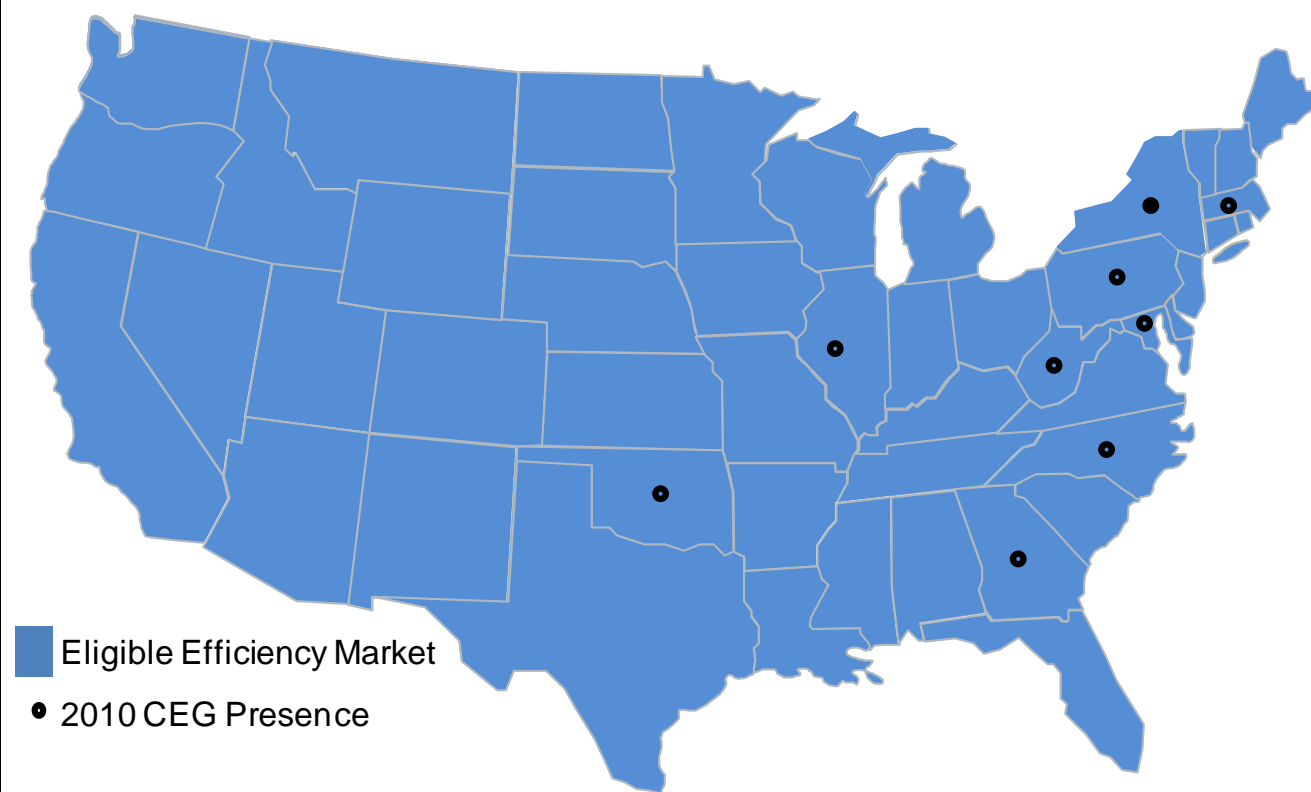
1. Customer class as a % of the total market

- Roughly 100 GW total market potential of which 25 GW is located in active ISO DR markets
- NewEnergy's integrated commodity and technology positions us for market leadership across U.S., including municipals, cooperatives and utilities in states highlighted in red above

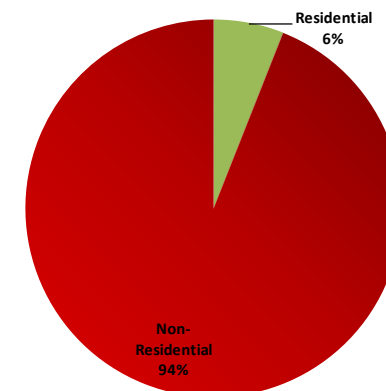
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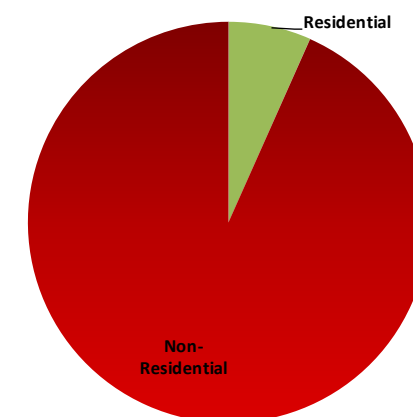
# Energy Efficiency Potential and Opportunity



Estimated Total Market = 20 GW <sup>(1)</sup>



Estimated Total Revenue Potential = \$6B <sup>(2)</sup>



1. Customer class as a % of the total market
2. Estimated potential revenue by customer class

Roughly \$6B of market potential in target markets with almost 40% located in non-competitive states



# Summary and Key Take-Aways

- Significant upside potential for Constellation's geographically diverse fleet due to new environmental regulations and economic recovery
- Expanding our product and service offerings will drive growth in competitive **and** regulated markets
- Scalable national sales and risk management platform for profitable growth
- Constellation's unique focus on helping customers manage their entire energy spend (price \* quantity) significantly expands our long-term, gross margin potential
  - Bundling commodity and service offerings will be a key differentiator

Constellation is poised to take advantage of any commodity price upside and compete for roughly \$15 - \$20 billion of NewEnergy gross margin potential



## Appendix



The way energy **works.**<sup>™</sup>

# Capital Spending – Generation Fleet

(\$ in millions)	<b>FY 2011E</b>	<b>FY 2012E</b>	<b>FY 2013E</b>
<b>Generation &amp; Other <sup>(1)</sup></b>			
Major Environmental	\$ 36	\$ 17	\$ 24
Maintenance Capital	124	124	128
Growth <sup>(2)</sup>	14	-	-
<b>Generation &amp; Other Total</b>	<b>\$ 174</b>	<b>\$ 141</b>	<b>\$ 152</b>

Note: As of December 2010

(1) Other includes corporate headquarters spending in Maintenance Capital

(2) Growth capital includes offset to reflect related Investment Tax Credits and Grants

# Generation Statistics

(MWh in thousands, unless otherwise stated)

	<u>2011E</u>	<u>2012E</u>	<u>2013E</u>	<u>2014E</u>
<b>Nuclear Plants (CEG Ownership Only)</b>				
Calvert Cliffs	7,263	7,025	7,205	7,299
NMP 1	2,403	2,668	2,471	2,660
NMP 2	4,003	3,851	4,377	4,044
Ginna	2,227	2,345	2,490	2,261
<b>Total Nuclear</b>	<b>15,896</b>	<b>15,889</b>	<b>16,543</b>	<b>16,264</b>
<b>Coal Plants <sup>(1)</sup></b>				
SW MAAC Coal Plants	11,621	10,816	9,672	9,817
Other PJM Coal Plants	3,894	3,917	3,971	3,717
<b>Total Coal</b>	<b>15,515</b>	<b>14,733</b>	<b>13,643</b>	<b>13,534</b>
Coal burn (MMtons) <sup>(2)</sup>	6.8	6.5	6.0	6.0
CO2 Emissions (MMtons)	25.1	24.1	22.7	22.8

(1) Excludes QFs

(2) Includes Keystone and Conemaugh



# Generation Statistics

(MWh in thousands, unless otherwise stated)

	<u>2011E</u>	<u>2012E</u>	<u>2013E</u>	<u>2014E</u>
<b>Gas / Oil Plants</b>				
PJM Gas/Oil Plants	101	103	136	204
NEPOOL Gas Plants	12,736	12,261	12,289	12,673
ERCOT Gas Plants	2,600	2,647	2,676	2,686
Hillabee (Alabama)	2,174	2,035	2,194	2,712
West Valley (Utah)	145	195	224	233
Grande Prairie (Alberta, Canada)	294	260	242	264
<b>Total Gas/Oil</b>	<b>18,050</b>	<b>17,501</b>	<b>17,761</b>	<b>18,772</b>
Total QFs/Other <sup>(1)</sup>	2,507	2,469	2,183	2,191
<b>Toll Agreement Statistics</b>				
External Tolls	6,159	6,070	5,485	5,791
Other Contracted Generation <sup>(2)</sup>	9,251	5,166	2,574	26
<b>Total Toll Output</b>	<b>15,410</b>	<b>11,236</b>	<b>8,059</b>	<b>5,817</b>

(1) Includes Safe Harbor (~700k MWh per year); Criterion; Panther Creek; Colver; Ace Trona; Jasmin; Chinese Station; Fresno; Malacha; Poso; Rocklin; Sunnyside

(2) Includes EDF portion of CENG JV PPA already sold to CEG