

# Utility Industry Update

**Ali Jamshidi**

Vice President, Commodity Operations

**Southwest Association of Railshippers  
2010 Annual Spring Rail Conference**

February 17-18, 2010

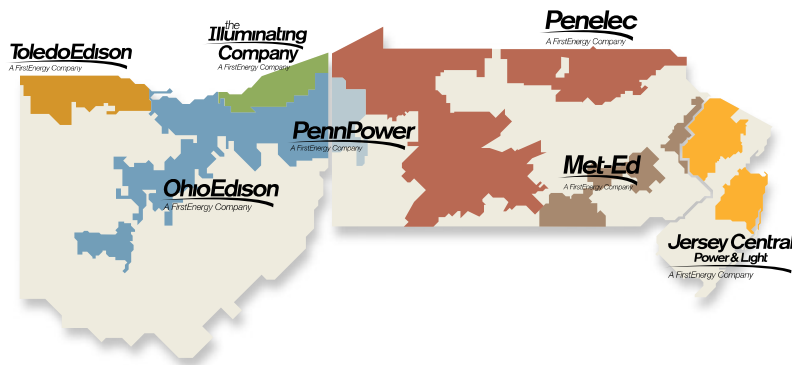
# Agenda

- **FirstEnergy Overview**
- **Short-term Utility Outlook**
- **Long-term Outlook and Implications**

# FirstEnergy Overview

## FirstEnergy Utilities

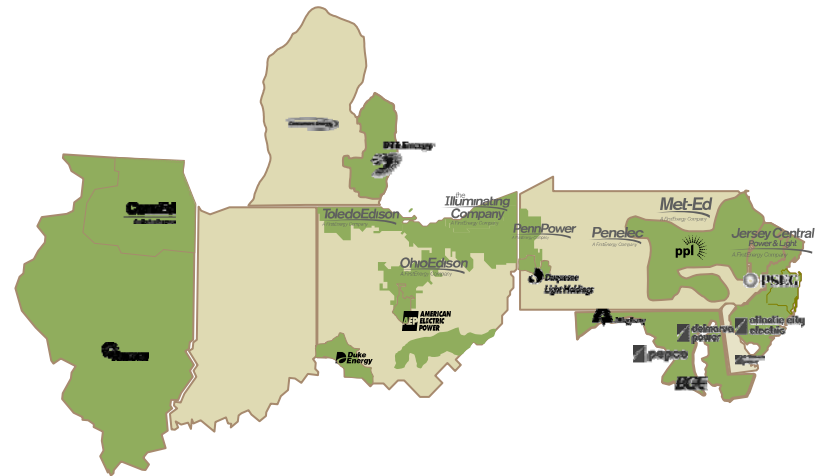
### Regulated Operations



- T&D wires operations
- Regulated retail, POLR
- 4.5 million customers
- 36,000 square miles

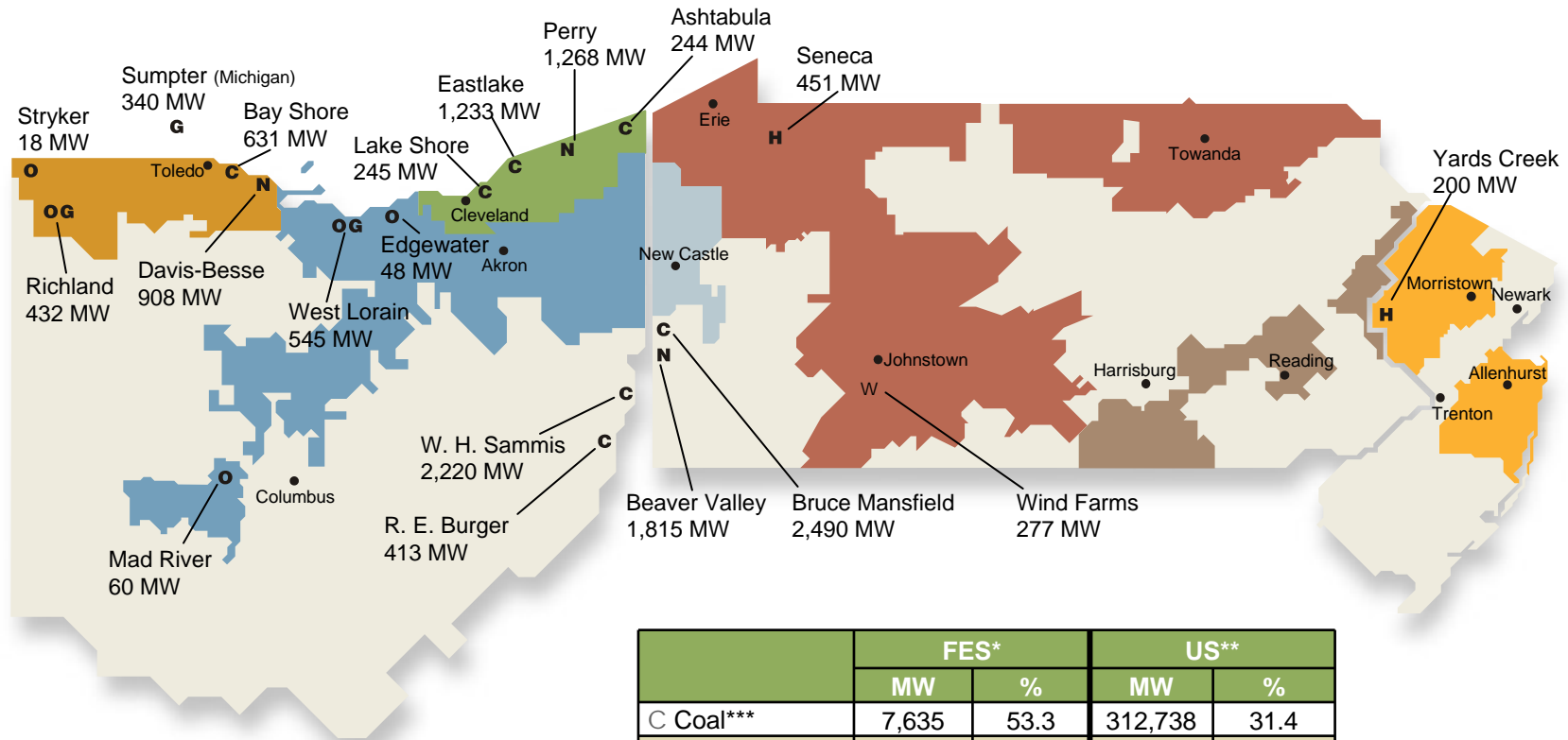
## FirstEnergy Solutions

### Market-Based Operations



- Controls 14,300 MW of generation capacity
- Competitive retail
- Commodity operations

# FirstEnergy Generation



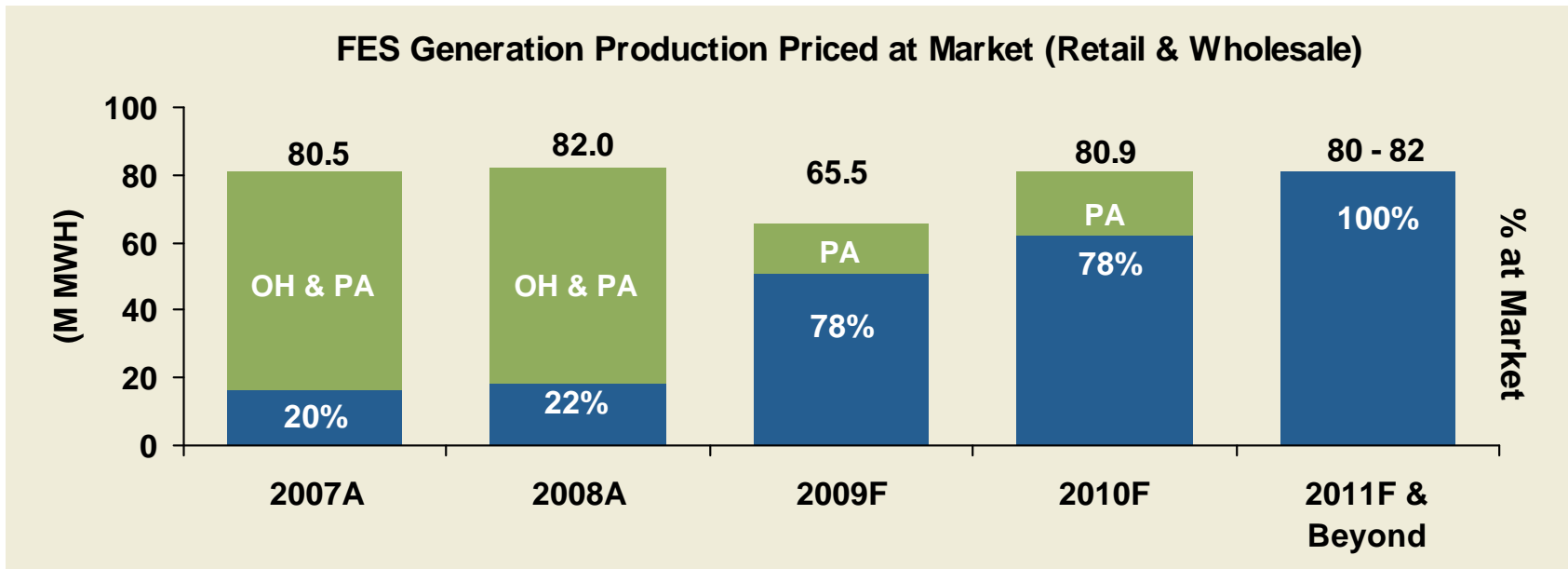
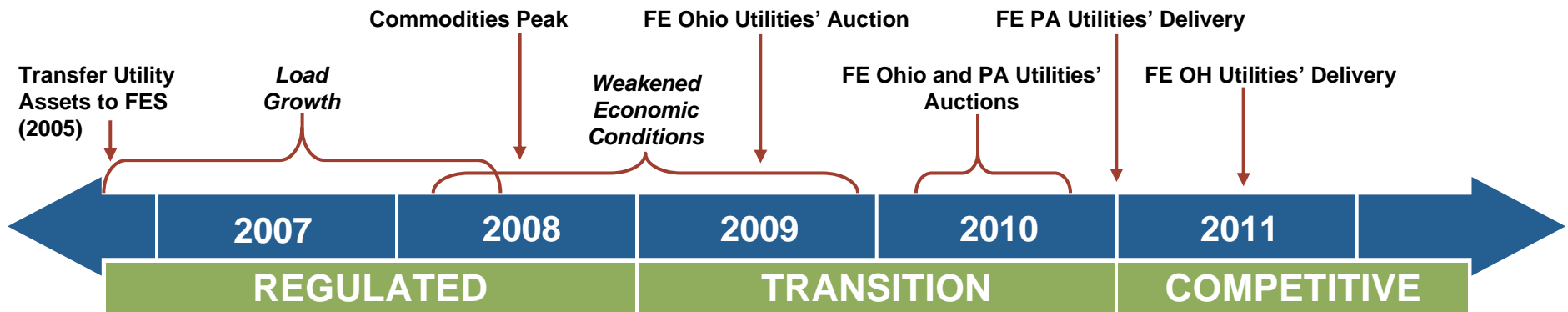
	FES*		US**	
	MW	%	MW	%
C Coal***	7,635	53.3	312,738	31.4
N Nuclear	3,991	27.8	100,266	10.1
G Gas & O Oil	1,693	11.8	392,876	39.5
H Hydro	651	4.5	77,885	7.8
W Wind	376	2.6	16,515	1.7
B Biomass	-	-	10,838	1.1
■ Other	-	-	83,771	8.7
<b>TOTAL</b>	<b>14,346</b>	<b>100.0</b>	<b>994,889</b>	<b>100.0</b>

\* As of February 8, 2010

\*\* Energy Information Administration, 2007 Electric Power Annual Report

\*\*\* FES' portfolio includes contracted OVEC capacity (260 MW)

# FirstEnergy is Transitioning to a Fully Competitive Generation Market



# Short-term Utility Outlook – 2009 Summary

## ■ Economy – 2009 Great Recession

	2008	2009	Change
MISO RTC* (\$/MWH)	\$ 51	\$ 29	(42%)
PJM RTC* (\$/MWH)	\$ 70	\$ 39	(44%)
Natural Gas Prices (\$/MMbtu)	\$8.85	\$4.04	(54%)

## ■ CAIR

- Vacated
- Re-instated?
- Maybe

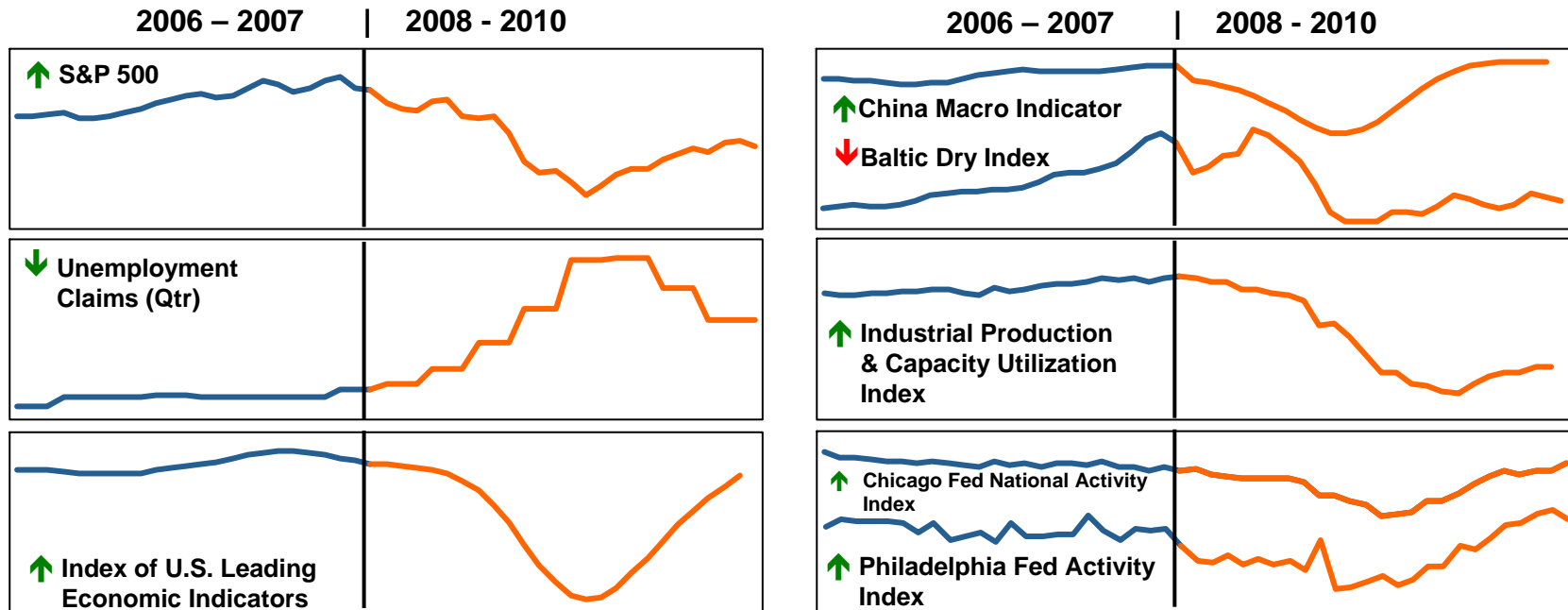
## ■ Natural Gas

- Strong domestic production led by unconventional plays
- Weak demand led by industrial and electric generation sectors
- Record storage fill by end of 2009 injection season

\*Annual Round the Clock average price at CIN Hub (MISO) and PJM West Hub (PJM)

# Short-term Utility Outlook – Uncertain

- While U.S. economic indicators show a recovery underway ...

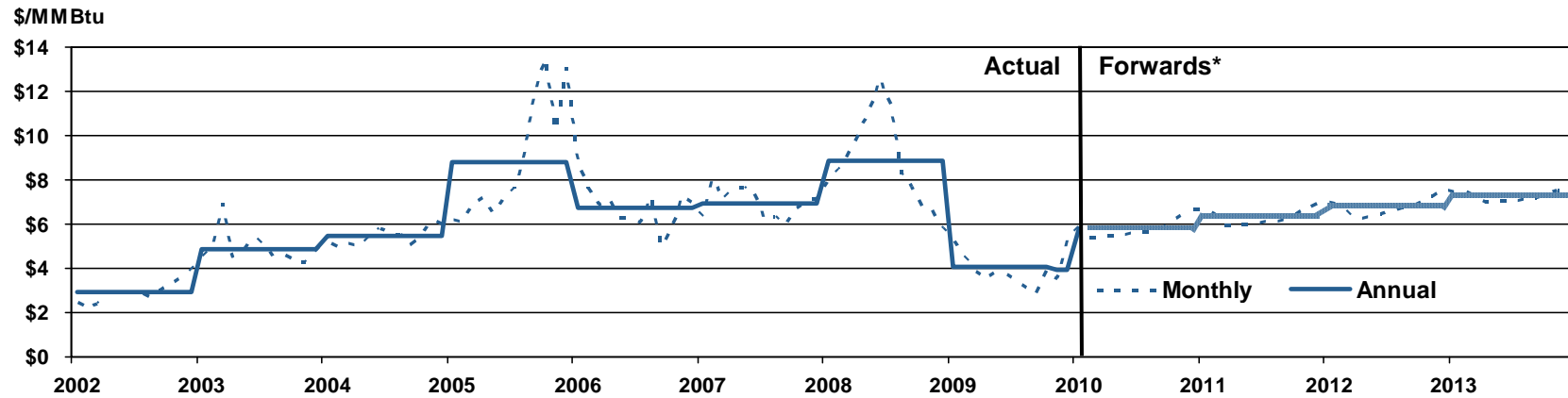


- ... electricity demand is still below last year's levels

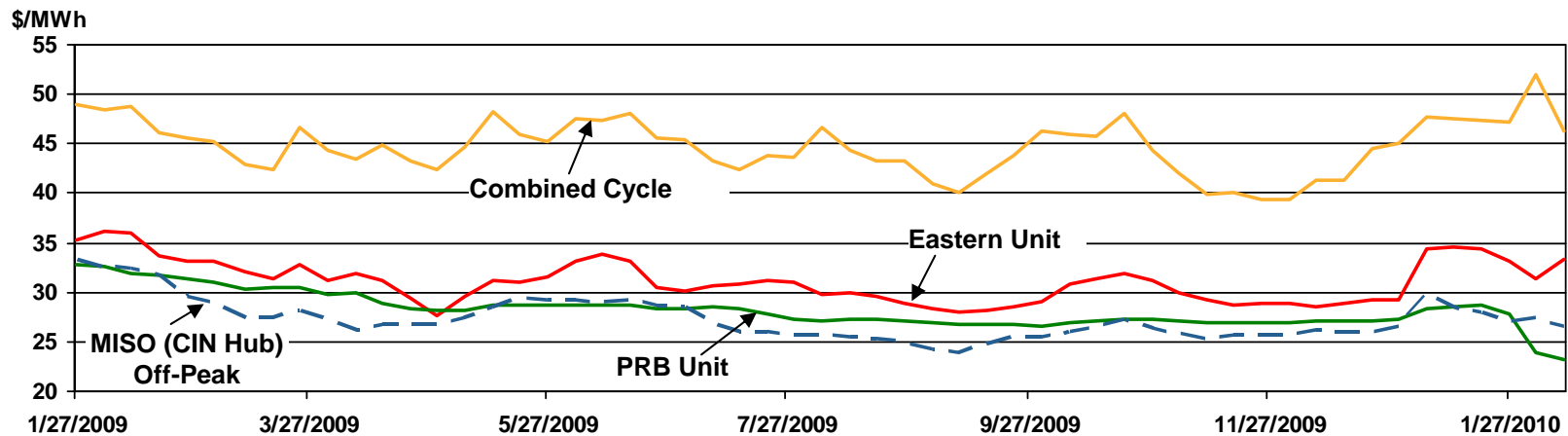
	Jan 2009	Jan 2010	Change
MISO (FE Control Area) Load (MW)	8,735	8,181	(6.3%)
PJM Footprint Load (MW)	93,199	87,990	(5.6%)

# Short-term Utility Outlook *(continued)*

## ■ Natural Gas



## ■ Market Power Forwards\*\*

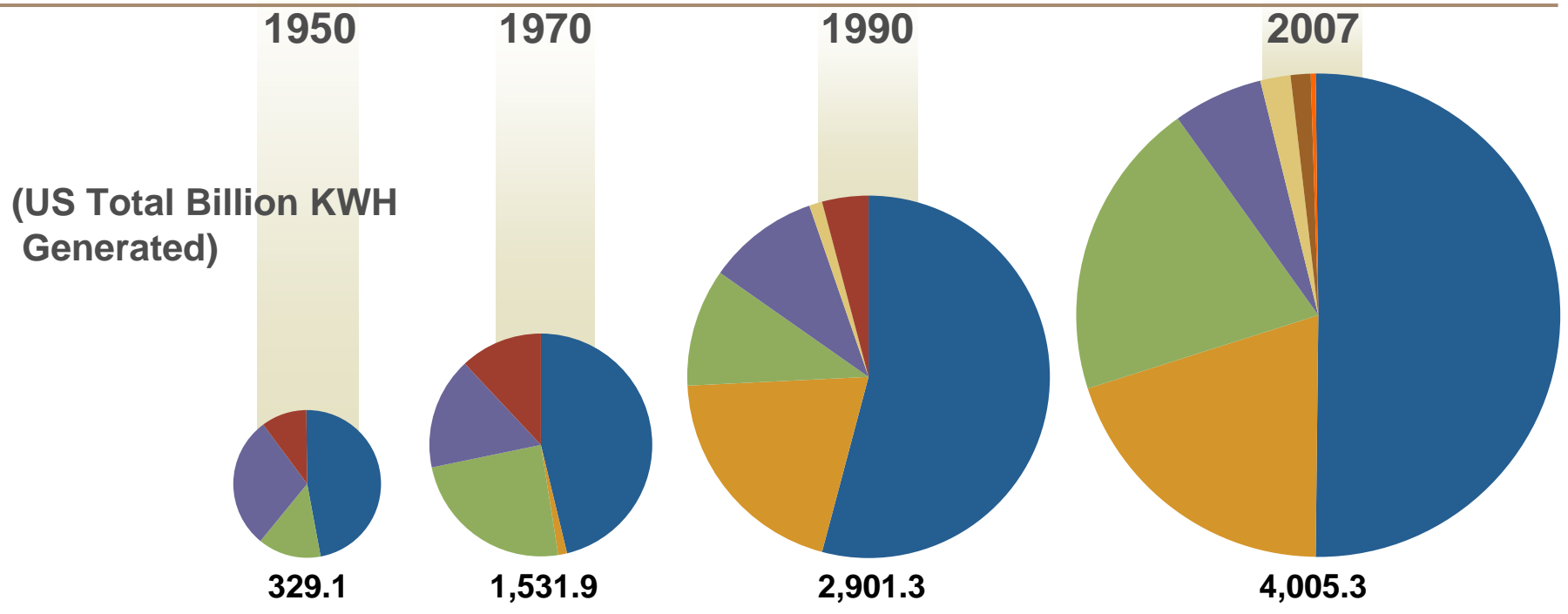


\*New York Mercantile Exchange Henry Hub Forwards 10-day exponential moving average with most recent trade date from February 9, 2010

\*\*2011 Forwards as of February 10, 2010

# Long-term Outlook

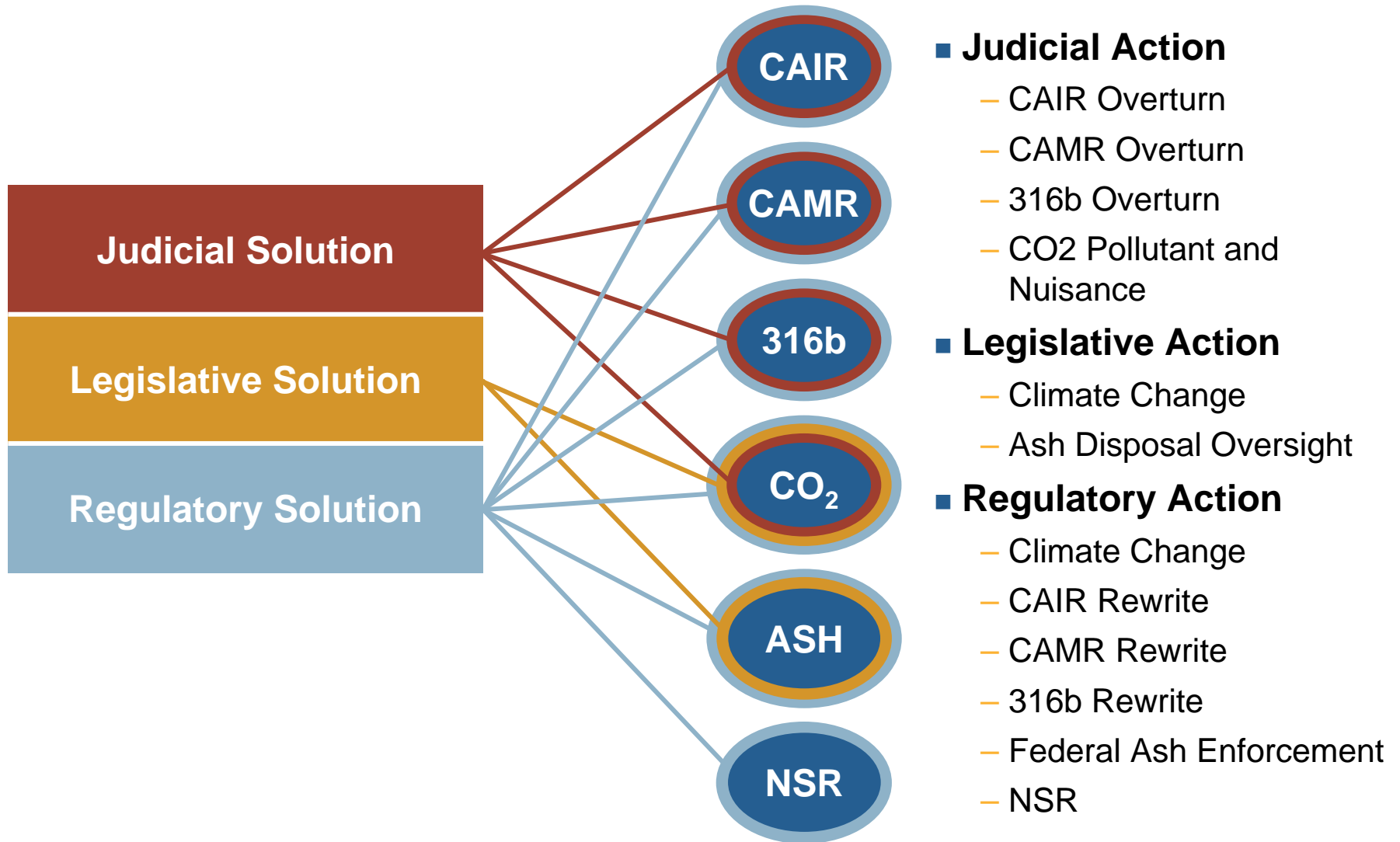
Electric Power Sector Generation has grown ten times since 1950; with coal remaining the main fuel source ... however, outlook is uncertain



Coal	154.5 (47%)	704.4 (46%)	1,572.1 (54%)	1,998.4 (50%)
Nuclear	0.0	21.8	576.9	806.4
Natural Gas	44.6	372.9	309.5	814.8
Hydro	95.9	247.8	286.2	238.9
Renewables	0.4	0.8	37.1	74.6
Petroleum	33.7	184.2	118.9	61.3
Other	0.0	0.0	0.6	10.9
<b>Total</b>	<b>329.1</b>	<b>1,531.9</b>	<b>2,901.3</b>	<b>4005.3</b>

# Long-term Outlook

Environmental challenges could dramatically change coal consumption



# Long-term Outlook

## Drivers

- **Environmental challenges**
- **Economy – U.S. and global**
- **Alternative resources**
  - Wind
  - Solar
  - Biomass
  - Demand resources
- **Natural gas prices**
  - Demand
  - Technology

## Implications

- **Coal-based generation is under pressure**
- **Generation fleet mix may have to be transformed**
- **Entire electricity supply chain is critical**
- **Transportation provider flexibility is critical**
- **Full-cycle economics have to work**