2011 OGA Conference

July 19, 2011

POWER GENERATION

Update/Outlook

Mark McCullough

Exec Vice President

Generation

American Electric Power

AEP AMERICAN ELECTRIC POWER

66%
Coal/Lignite

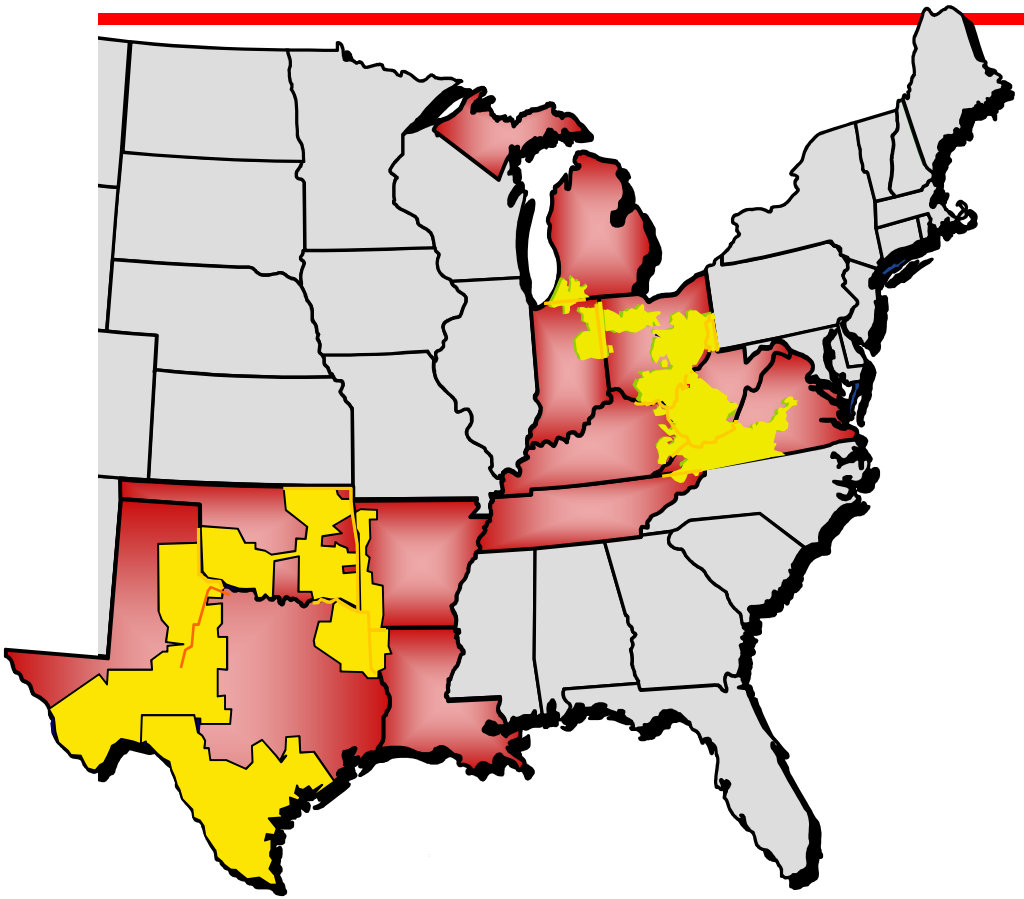
22%
Nat.gas/oil

6%
Nuclear

6%
Wind/Hydro

5.2 million
customers in 11 states

38,000+ MW
generating capacity



AEP AMERICAN ELECTRIC POWER

Domestic Generation
38,000+ MW 2nd

Transmission
39,000+ mi 1st

Distribution
213,000+ mi 1st

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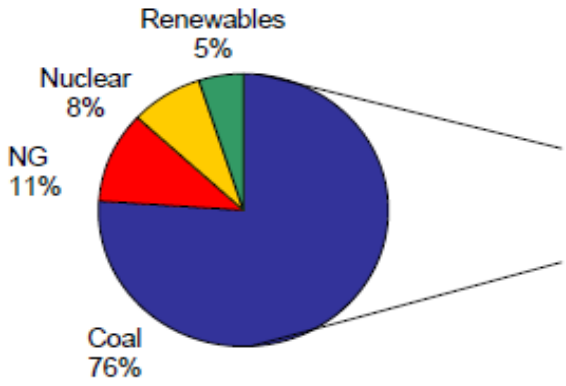
AEP Generation Capacity

East

27,253 MW

AEP Ohio, APCo, I&M, AEG, KPCo, Wind, Solar, Hydro

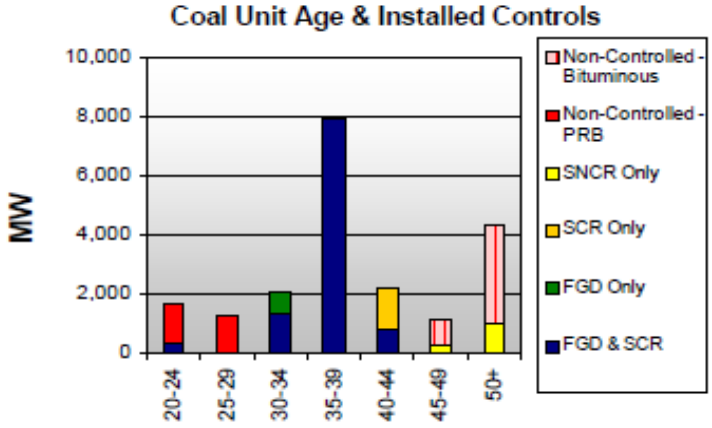


Coal Source

NAPP	46%
CAPP	30%
PRB	22%
Others	2%

Avg. Delivered Cost
2009A - $56/ton
2010E - $52/ton
2011E[1] - $51/ton

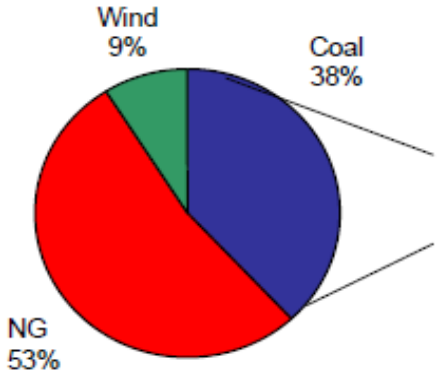
[1] Represents cost of committed position (91%)



West

11,677 MW

PSO, SWEPCO, TNC, Wind

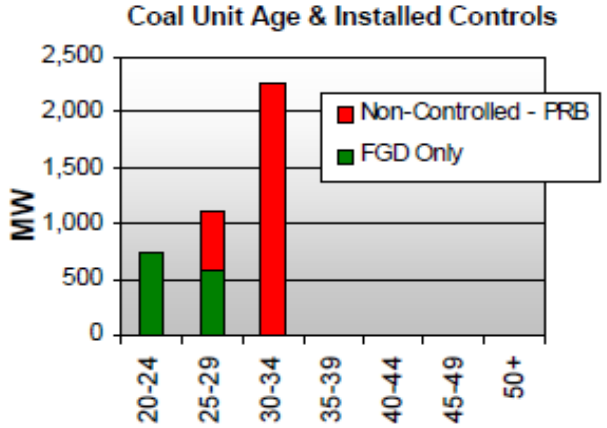


Coal Source

PRB	75%
Lignite	25%

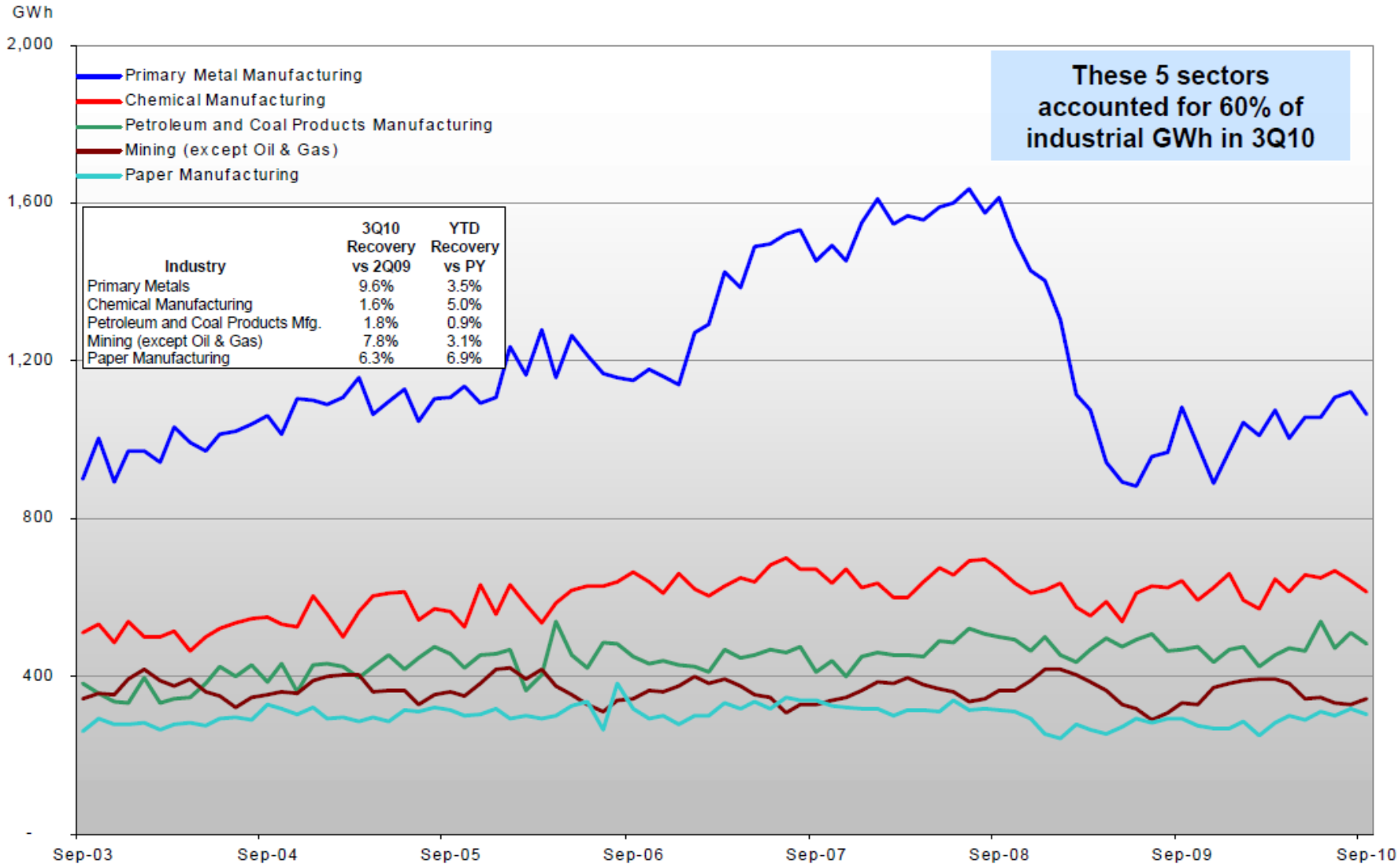
Avg. Delivered Cost
2009A - $29/ton
2010E - $29/ton
2011E[1] - $29/ton

[1] Represents cost of committed position (90%)



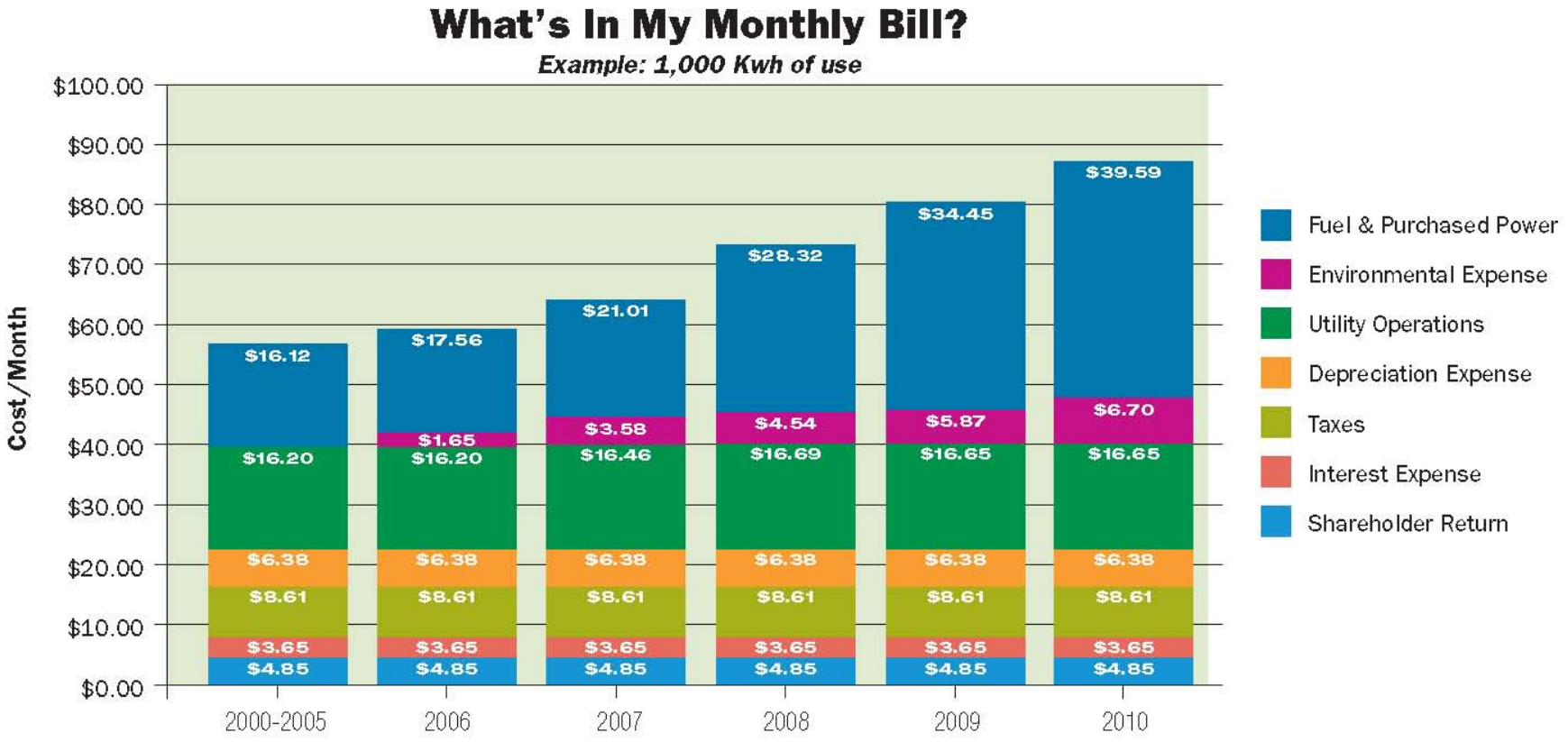
2011

AEP Industrial Sales GWh by sector



POWER

West Virginia Cost Drivers



AEP's Environmental Stewardship

AEP is an environmentally responsible company

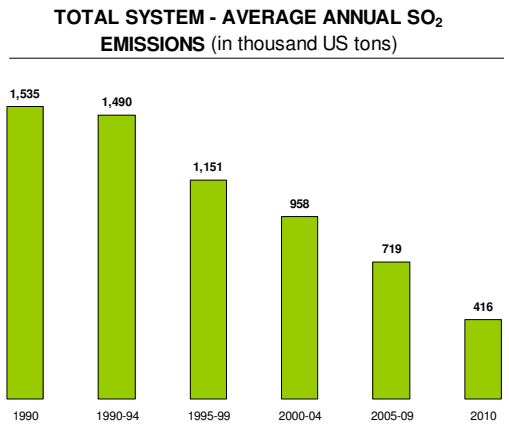
It supports regulations that achieve long-term environmental benefits while considering the impacts on customers, the economy and system reliability

Environmental regulation must be approached in a coordinated, realistic and cost-effective manner

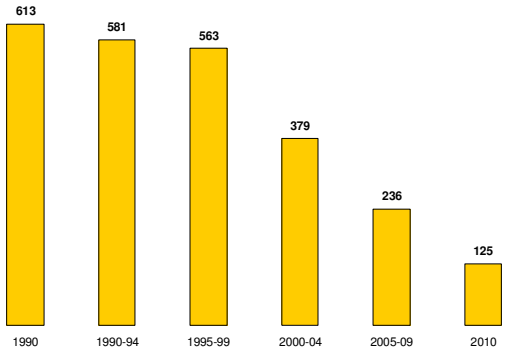
AEP does, and will continue to, comply with all environmental regulations

Ongoing Air Quality Improvements

- AEP has improved its environmental performance
  - Since 1990, AEP has reduced its NOx emissions by 80% and its SO_2 emissions by 73%
  - AEP has invested more than $7 billion since 1990 to reduce emissions from its coal-fueled generation fleet
- AEP will continue to improve the environmental performance of its power plants

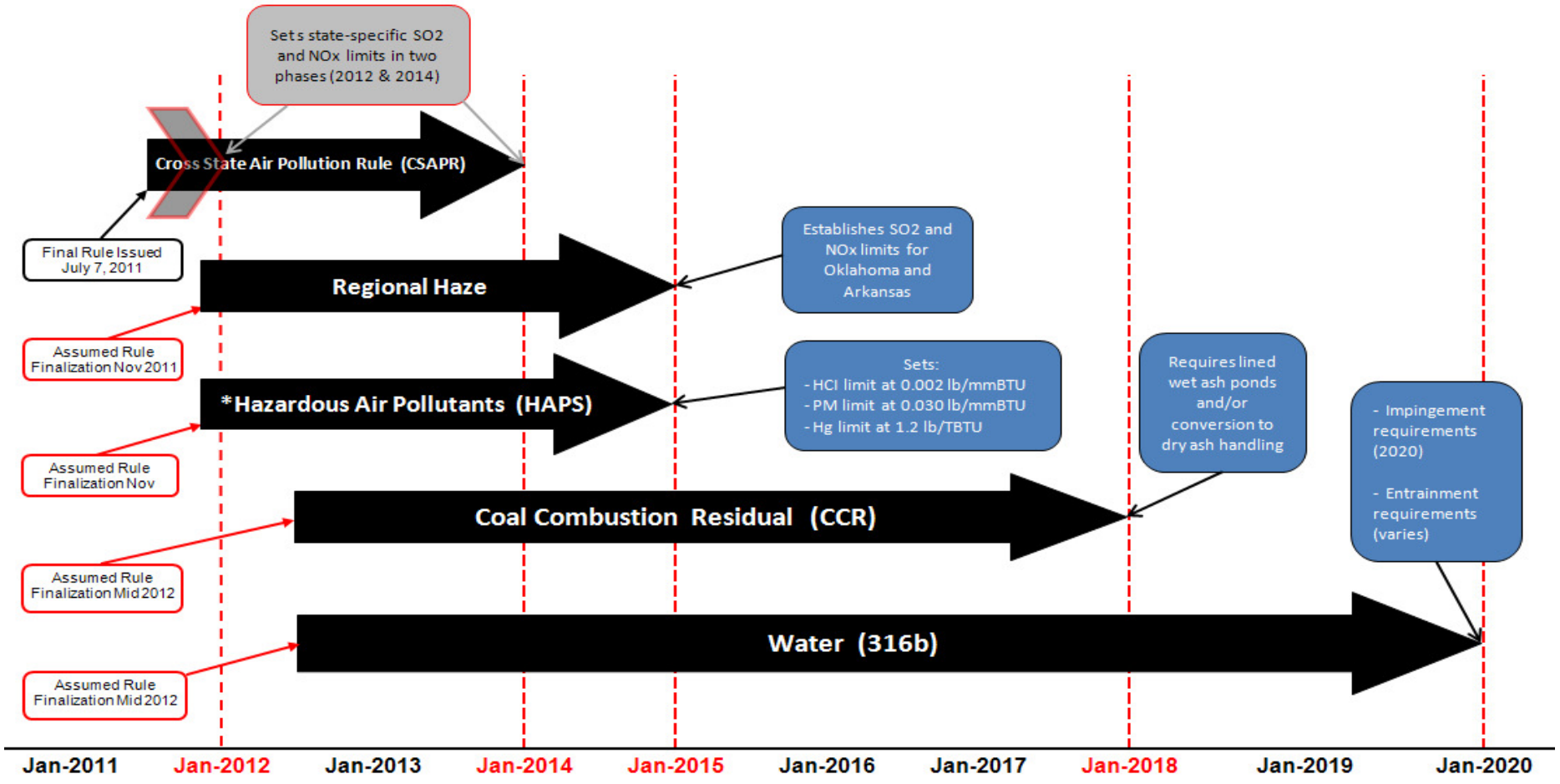


TOTAL SYSTEM - AVERAGE ANNUAL SO_2 EMISSIONS (in thousand US tons)



TOTAL SYSTEM - AVERAGE ANNUAL NOx EMISSIONS (in thousand US tons)

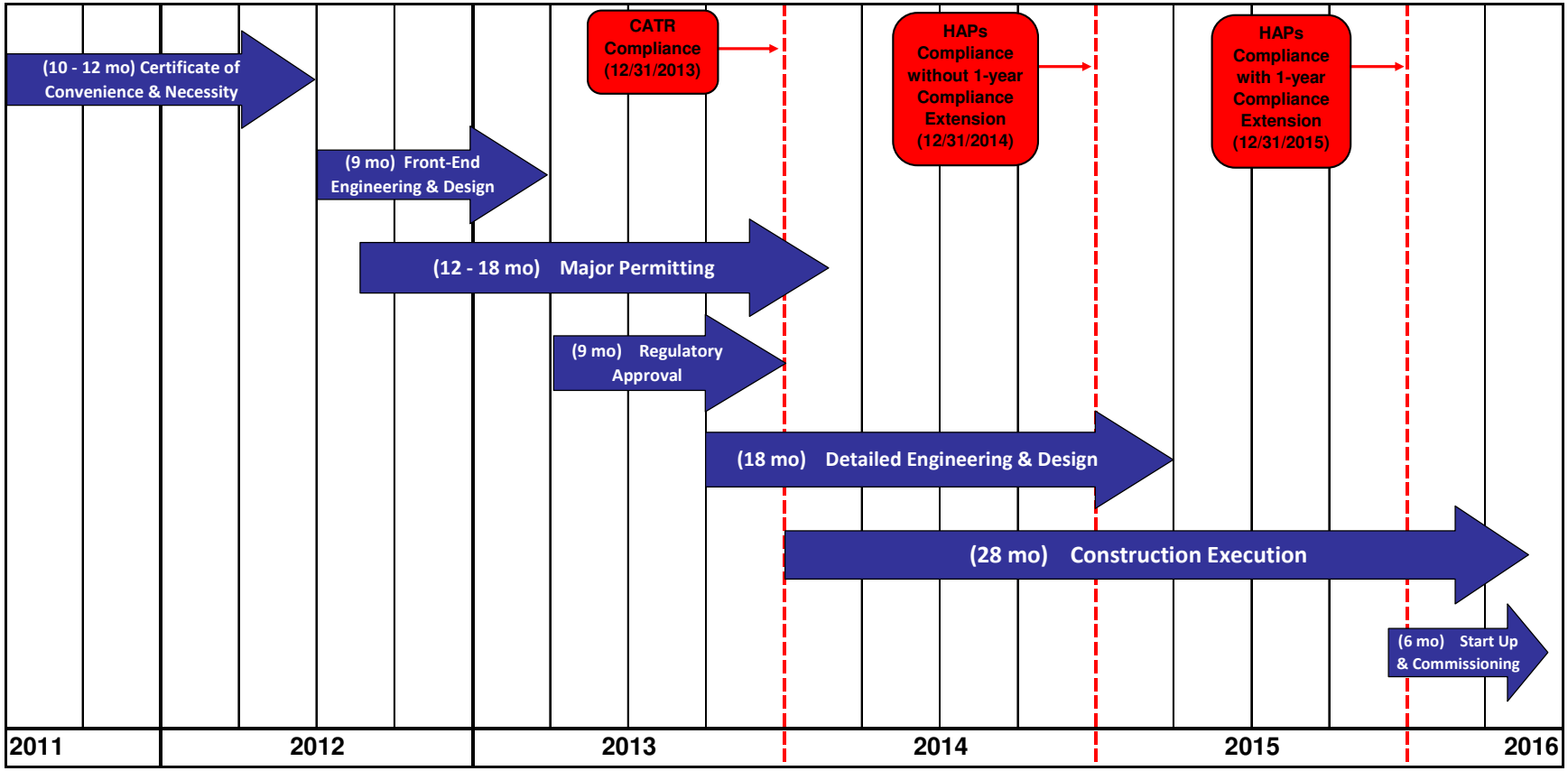
Environmental Regulations and Compliance Deadlines



* Units that will be retrofit are eligible for a one year compliance extension from the EPA

Compliance Within Time Frames is Not Feasible

Typical FGD System Construction Timeline.



Overall Impacts For AEP

To meet compliance deadlines for new environmental regulations, AEP expects it will need to invest $6 billion to $8 billion to:

- Retire nearly 6,000 MW of existing coal-fired generation by Dec. 31, 2014
- Refuel, retrofit with new or upgrade existing environmental controls on another 11,000 MW
- Temporarily (1 – 4 years) idle / curtail 1,500 MW – 7,700 MW
- Build approximately 1,700 MW of new generation

This will create:

- Abrupt rate increases ranging from 10% to 35%
- Significant reliability concerns, particularly in the 2014 – 2016 time frame
- The need to install additional equipment to address impacts on the transmission system due to the reduction in generating capacity
- Other locally significant economic impacts

Potential Impact of Rules on AEP Capacity

= Substantially Curtailed Units From Finalized CSAPR Subject to Potential Early Retirements From RTOs

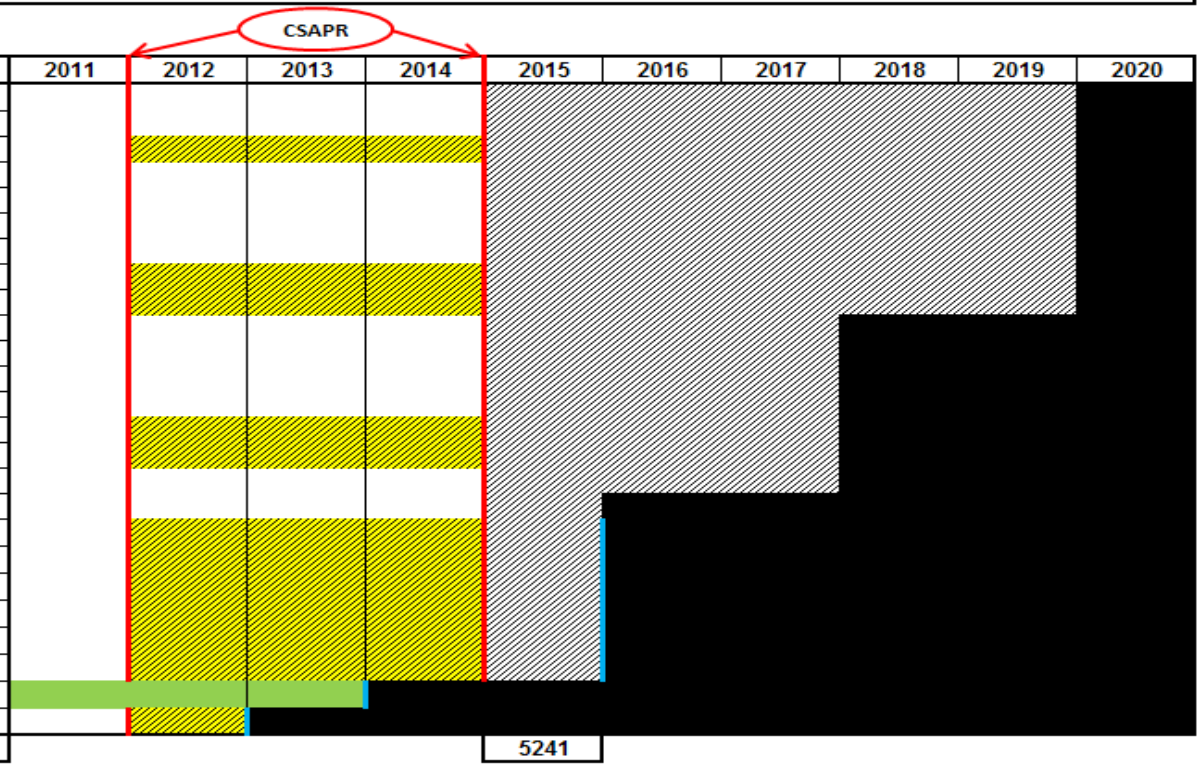
= Denotes New Source Review Concent Decree to Retrofit, Repower, or Retire (RRR)

= Unit Retirements Filed Earlier Than Concent Decree Required Date

= Early Retirements due to Proposed CATR and HAPS

= Planned Retirement per AEP's Rational Approach

UNITS to RETIRE	State	MWn
Kanawha River 1	WV	200
Kanawha River 2	WV	200
Picway 5	OH	100
Sporn 1	WV	150
Sporn 2	WV	150
Sporn 3	WV	150
Sporn 4	WV	150
Tanner Creek 3	IN	205
Welsh 2	TX	528
Kammer 1	WV	210
Kammer 2	WV	210
Kammer 3	WV	210
Clinch River 3	VA	235
Tanner Creek 1	IN	145
Tanner Creek 2	IN	145
Glen Lyn 6	VA	240
Glen Lyn 5	VA	95
Big Sandy 1	KY	278
Big Sandy 2	KY	800
Muskingum River 1	OH	205
Muskingum River 2	OH	205
Muskingum River 3	OH	215
Muskingum River 4	OH	215
Sporn 5	WV	450
Conesville 3	OH	165
		5856



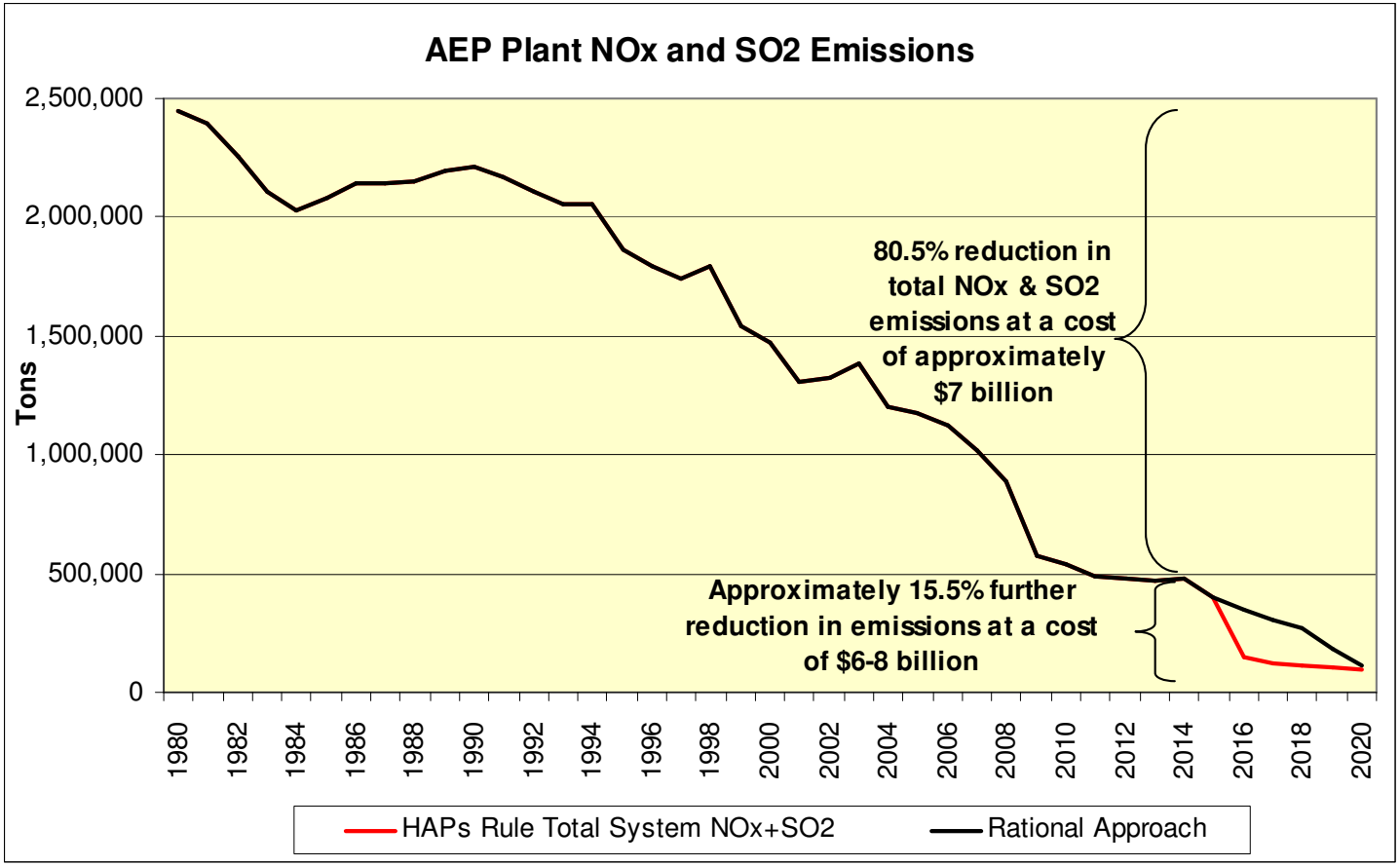
* New Source Review Concent Decree also requires an additional unspecified 600 MWs to be "RRR" by 2018

5,200 MW of AEP's coal-fired generation will retire early due to CATR/HAPs. In addition, over 11,000 MW of coal generation will be either upgraded, retrofitted, repowered, or refueled to natural gas. Approximately 7,700 MW of coal generation will be either curtailed or idled for some period of time.

Reliability Concerns

- Capacity reductions caused by retirements, idled units and curtailments will create grid reliability concerns
- Generating units provide ancillary services that support grid reliability
  - These ancillary services -- voltage and reactive load support, frequency response, load following ability, system restoration and black start – will be lost with unit retirements and curtailments
  - It is not clear how and when these services will be replaced
- We are meeting with regional reliability organizations to make sure these concerns are being addressed
- With longer time frames, AEP and the industry can address these concerns

A Phased-in Approach Will Arrive at The Same Destination



APPENDIX

AEP Ohio

Retirements			
Unit(s)	**MW**	**Lost jobs**	**Date**
Conesville 3	165	20	Dec. 31, 2012
Kammer 1 – 3*	630	60	Dec. 31, 2014
Muskingum River 1 - 4	840	128	Dec. 31, 2014
Picway	100	9	Dec. 31, 2014
Sporn 2, 4*	300	60	Dec. 31, 2014
Sporn 5*	450		Requested
Total	*2,035*	*277*	

^Assumes regulatory cost recovery for environmental investments including refuel are non-bypassable surcharge as proposed
*Units are located in West Virginia

Retrofit-Refuel-Upgrade^		
Units	**Type**	**Notes**
Conesville 5, 6	SCR, DSI	
Gavin 1, 2	FGD upgrade	Curtailment
Muskingum River 5	Refuel to natural gas	Capacity reduced
Zimmer	FGD upgrade	

Other Impacts	
Customer rates	7% - 12%
Lost taxes Payroll Property West Virginia B&O	$9.1 – 12.5 million $ 480,000 $4.3 million $4.4 - $7.8 million
Lost wages	$10.9 million

AEP Ohio

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Lost wages	$10.9 million

Appalachian Power

Retirements			
Unit(s)	**MW**	**Lost jobs**	**Date**
Clinch River 3	235	43	Dec. 31, 2014
Glen Lyn 5, 6	335	44	Dec. 31, 2014
Kanawha River 1, 2	400	62	Dec. 31, 2014
Sporn 1, 3	300	60	Dec. 31, 2014
Total	*1,270*	*209*	

Premature retirement of AEP Ohio-owned units at Sporn and Kammer plants will have economic impacts in West Virginia.

Retrofit-Refuel-Upgrade		
Unit(s)	**Type**	**Notes**
Clinch River 1, 2	Refuel with natural gas	Capacity reduced

Other Impacts	
Customer rates Virginia West Virginia	 10% - 15% 10% - 15%
Lost taxes Virginia West Virginia Plus B&O	$18 - $22.5 million $2.9 million $12.89 million $2.3M – $4.5M
Lost wages Virginia West Virginia	$23.0 million $ 6.1 million $16.9 million

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Indiana Michigan

Retirements			
Unit(s)	**MW**	**Lost jobs**	**Date**
Tanners Creek 1 - 3	495	65	Dec. 31, 2014

Retrofit-Refuel-Upgrade		
Unit(s)	**Type**	**New jobs**
Rockport 1	FGD, SCR	40
Rockport 2	FGD, SCR	40
Tanners Creek 4	DSI and ACI	

Other Impacts	
Customer rates Indiana Michigan	 25% - 30% 25% - 30%
Taxes (Indiana) Payroll Property	$1.2 million (net reduction) $ 46,500 (increase) $1.2 million (reduction)
Wages (Indiana)	$1.0 million (increase)

Kentucky Power

Retirements			
Unit(s)	**MW**	**Lost jobs**	**Date**
Big Sandy 2	800	86	Dec. 31, 2014
Big Sandy 1	278		Dec. 31, 2014
Total	*1,078*		

*A portion of KPC rate impact is from the company's allocation from Rockport.

New Generation		
Unit(s)	**MW**	**Date**
Big Sandy 1	Repower as 640 MW natural gas	Dec. 31, 2015

Other Impacts	
Customer rates	30% - 35%*
Lost taxes Property Payroll	$805,000 $461,000 $344,000
Lost wages	$6.0 million

Public Service Oklahoma

Retrofit-Refuel-Upgrade			
Unit(s)	**Type**	**Notes**	**New jobs**
Northeastern 3, 4	FGD, ACI, Baghouse	Units will be idled 1/1/16 until retrofits are complete	60
Oklaunion	FGD upgrade, ACI		

Other Impacts	
Customer rates	10% - 15%
Tax increases Property Payroll	$7.4 million $7.2 million $203,000
Wage increases	$4.2 million

SWEPCO

Retirements			
Unit	**MW**	**Lost jobs**	**Date**
Welsh 2	528	44	Dec. 31, 2014

Other Impacts	
Customer rates	
Arkansas	19% – 23%
Louisiana	16% - 20%
Texas	18% - 22%
Arkansas	
Payroll increase	$2.1 million
Tax increase	$1.4 million
Texas	
Payroll decrease	$3.1 million
Tax decrease	$1.4 million

Retrofit-Refuel-Upgrade		
Unit(s)	**Type**	**New jobs**
Dolet Hills*	ACI, Baghouse	
Flint Creek	FGD, ACI, Baghouse	30
Pirkey	ACI, Baghouse	
Welsh 1, 3	ACI, DSI, Baghouse	

New Generation		
Unit	**MW**	**Date**
J W Turk Jr	440	2012

*AEP owned MW only

A Better Option

AEP supports appropriate environmental regulation or legislation that establish a more coordinated, realistic and cost-effective compliance program.

Regulations must provide appropriate flexibility to achieve the desired emission reductions while managing customer costs.

A thoughtful phased-in approach will achieve similar environmental benefits with significantly less economic and reliability impact.

Benefits of a Phased-in Approach

- Will provide the time utilities need to install environmental retrofits without idling or curtailing generating units
- Will allow unit retirements to occur over a more reasonable timeframe needed to address grid reliability issues
- Will support construction jobs over a longer period of time
- Will provide long-term environmental benefits
- Will give local communities time to plan for economic losses

Impact of Cross State Air Pollution Rule

Although the specific impacts of the Cross State Air Pollution Rule (CSAPR) have not been fully analyzed, initial indications suggest that:

- Units will be curtailed earlier (2012) than anticipated under the CATR
- Unit retirements may be advanced
- Earlier unit retirements may advance grid reliability concerns
- Customer rate impacts are immediate in 2012 - some states will be impacted more than others
- Temporary technical solutions to allow some units to operate will be costly and may represent stranded costs

A Base Plan Scenario

- The following slides outline what AEP currently expects it will need to do to comply *if all proposed environmental regulations were enacted without change*
- The scenario is AEP's best estimate at this point in time
- **This scenario will change based upon CSAPR**

Overall Impacts to Employees and Communities

- Nearly 750 employees could be displaced through premature unit retirements, while an estimated 170 permanent new jobs could be created by retrofit technologies. **Net impact could be approximately 600 fewer jobs with annual lost wages of approximately $40 million**
- There will be indirect job losses affecting local vendors, contractors and service providers, as every MW of coal-fueled generation supports an average of three additional indirect jobs
- In 2015
  - Payroll taxes could decline more than $20 million
  - Property tax payments could decline approximately $12 million

Environmental Control Technologies

- **FGD** – flue gas desulfurization system (scrubber) – reduces sulfur dioxide emissions
- **SCR** – selective catalytic reduction system – reduces nitrogen oxide emissions
- **ACI** – activated carbon injection – reduces mercury emissions
- **DSI** – dry sorbent injection – neutralizes acid gases
- **Baghouse** – also fabric filter – physically traps and filters particulate matter