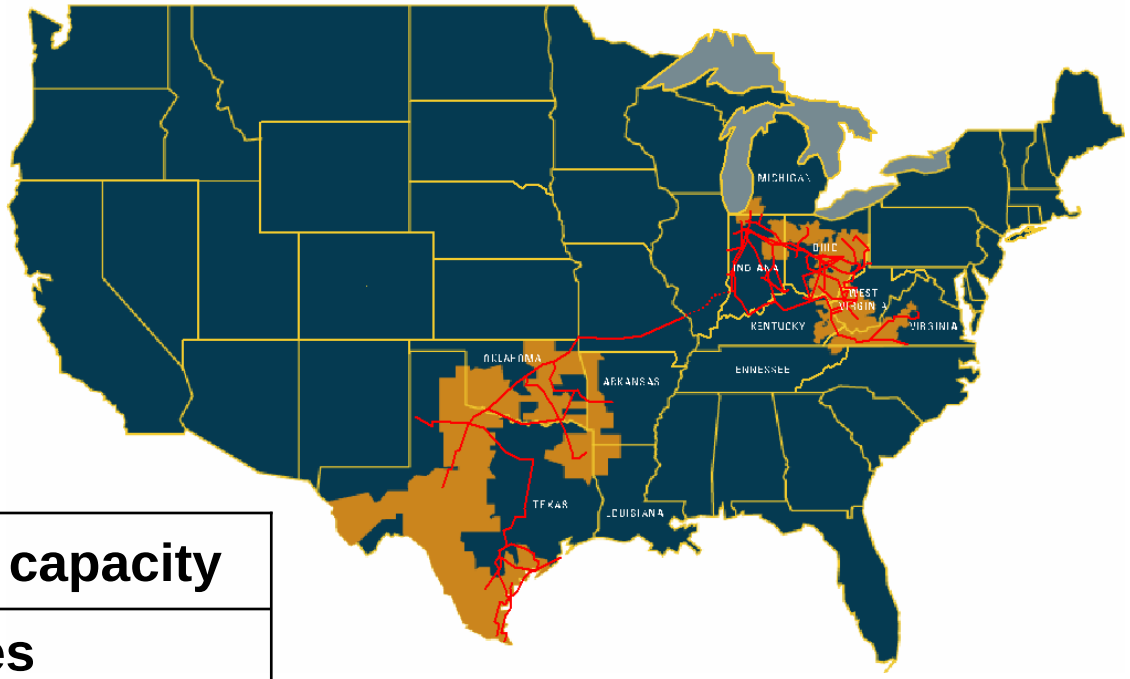
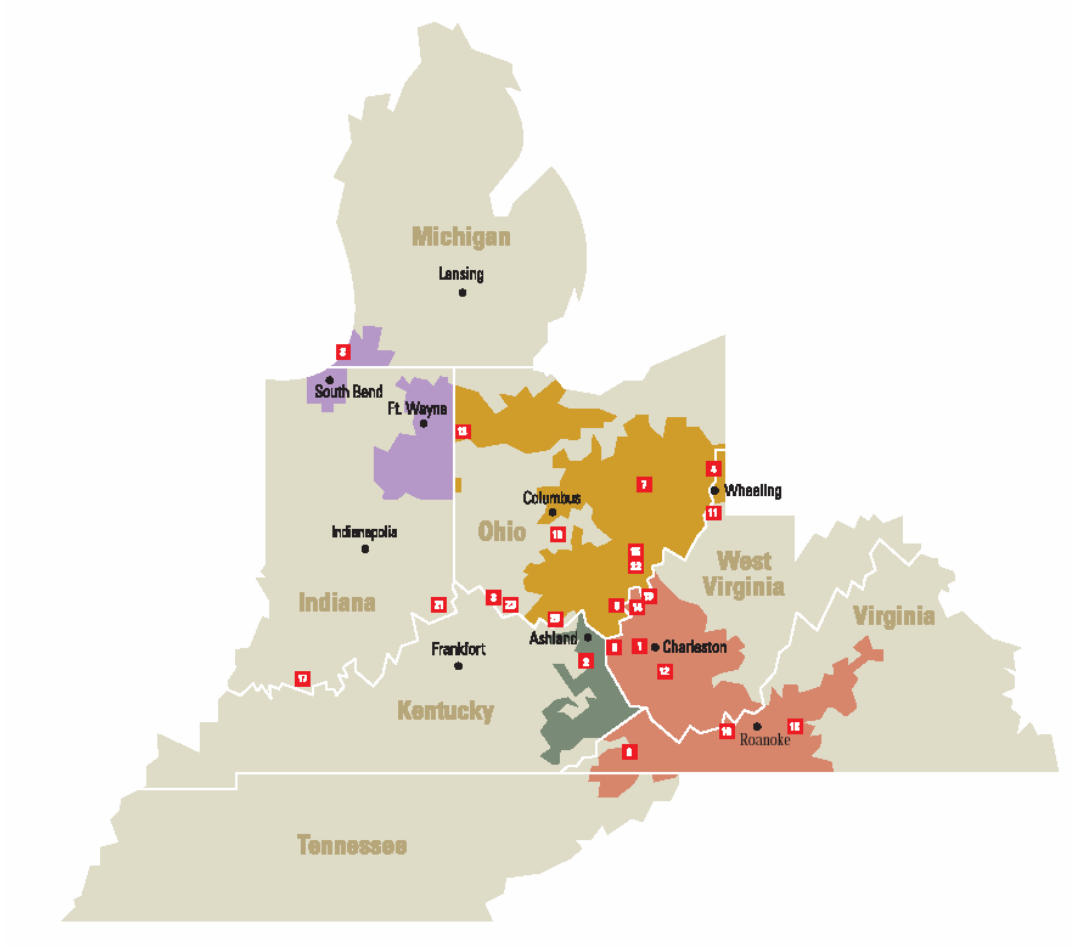
AEP Company Overview

AEP – Summary Statistics



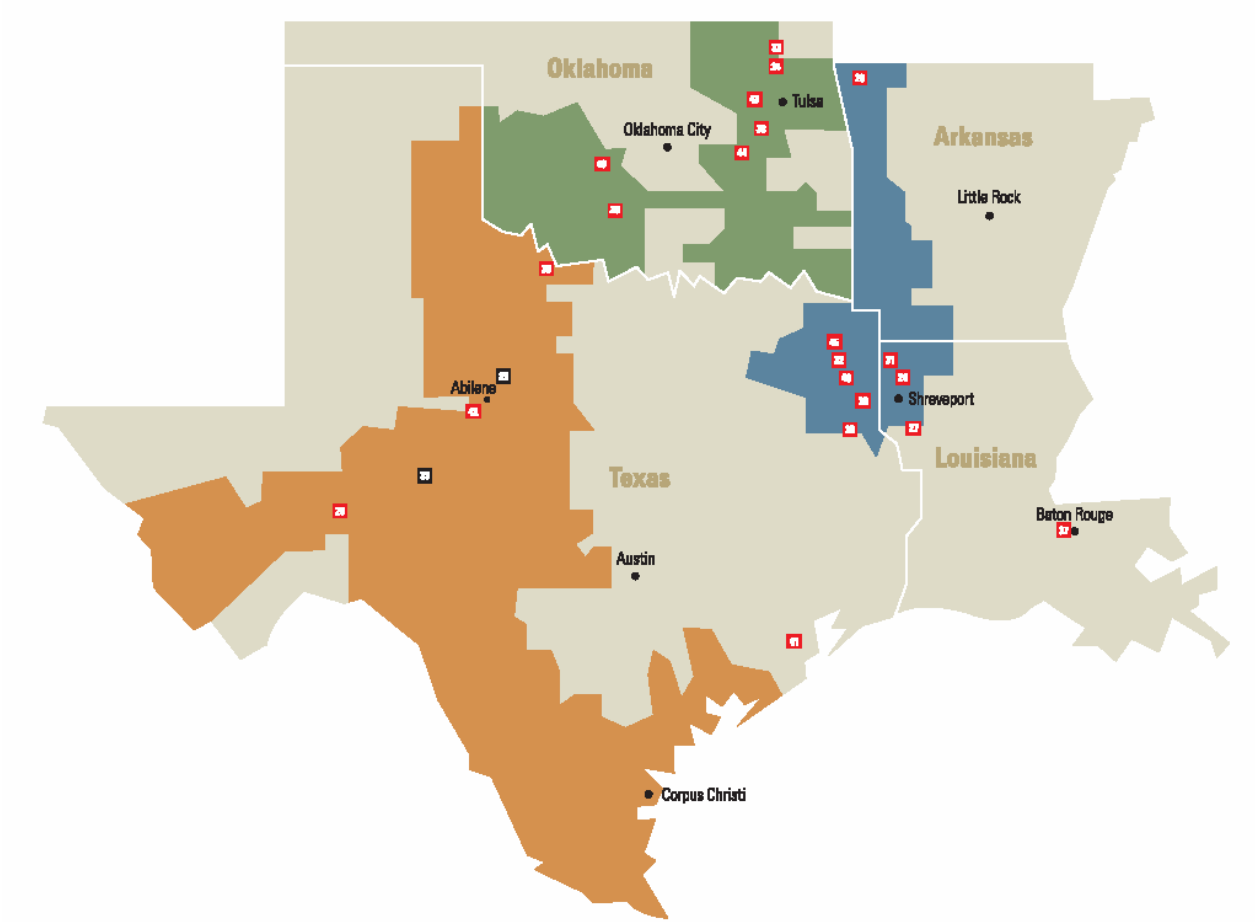
Generation	**36,000 MW capacity**
Transmission	**39,000 miles**
Distribution	**202,000 miles**
Customers	**5 million**

AEP Generation - East



The AEP fleet includes coal units as large as 1300 Mwe – and more than 50 percent of the fossil fleet runs on the efficient supercritical cycle.

AEP Generation - West



The AEP Fleet (east and west) includes over 70 major generation units.

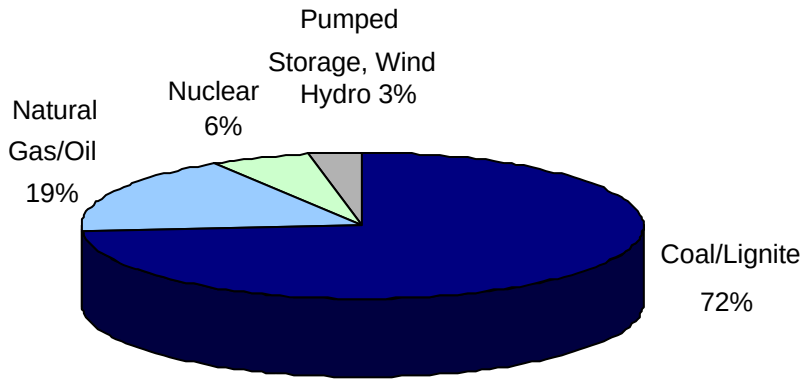
AEP Generation Fleet

35,600 MW Domestic Capacity

85% System Availability Factor YE 2005

63% System Capacity Factor YE 2005

Capacity by Fuel Mix



	Baseload	Load-Following	Peaking
Easton US	23,985	0	1,954
Texas	1,089	0	0
Western US	4,828	3,516	188
Total	**29,902**	**3,516**	**2,142**

GENERATION FLEET IS SUBSTANTIAL AND LOW COST

2005 Operating Statistics

Net Generation	2005	% Of Total
AEP PJM	153,861,250	79.37%
Coal	135,406,451	69.85%
Gas	139,525	0.07%
Net Hydro*	841,761	0.43%
Nuclear	17,473,513	9.01%
AEP SPP	35,548,497	18.34%
Coal	24,832,551	12.81%
Gas	10,715,946	5.53%
AEP ERCOT	4,440,216	2.29%
Coal***	2,678,060	1.38%
Nuclear ****	1,762,156	0.91%
Totals**	193,849,963	100.00%

Notes: *Includes run of the river and pump storage.

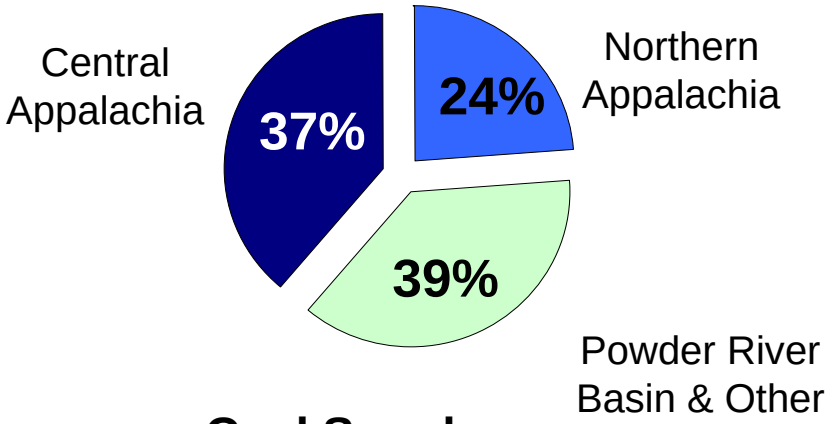
**Includes AEP owned generation and Cardinal 2&3.

***Actual includes AEP Texas' [TCC & TNC] portion.

****Actual includes generation thru 5/19/05, when sale for STP was completed.

Coal Units Provide the Majority of AEP's Generation

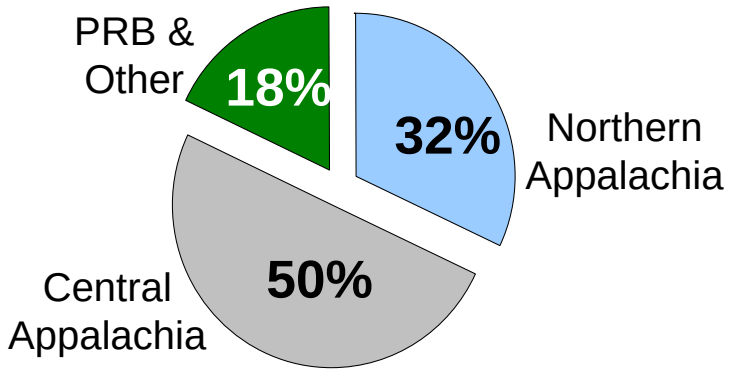
Coal Procurement



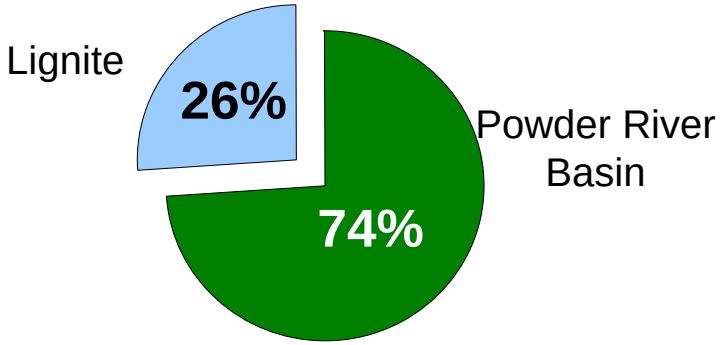
Coal Supply
(on average)

- Purchase 75 MM tons per year
- Avg. delivered price ~ $32.52/ton in 2005
- Essentially 95% purchased for 2006
- Approximately 10%-12% price increase in 2006
  - Rising costs at Eastern mines & safety issues
  - High SO_2 Allowance prices drive low sulfur coal prices

EASTERN SYSTEM

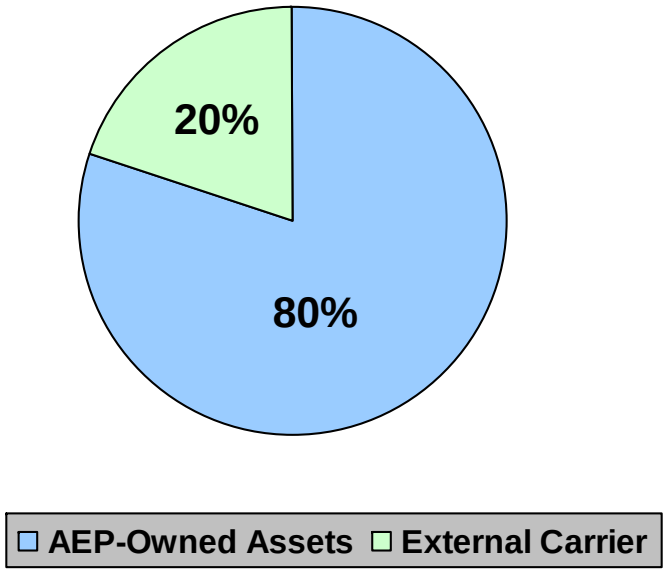


WESTERN SYSTEM



AEP's Coal Transportation Assets

Coal Transportation to AEP Plants
Jan-June 2005 Actual



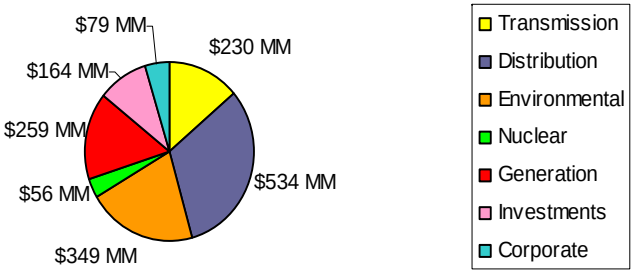
AEP's substantial coal transportation assets include:

- 7,065 railcars
- 2,230 barges
- 53 towboats
- 1 active coal handling terminal (20 million tons of annual capacity)

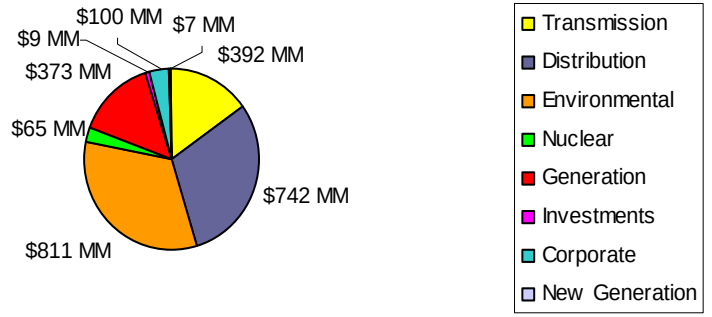
AEP'S TRANSPORTATION ASSETS PROVIDE FLEXIBILITY IN A CONSTRAINED DELIVERY ENVIRONMENT

Capital Investment 2004-2006

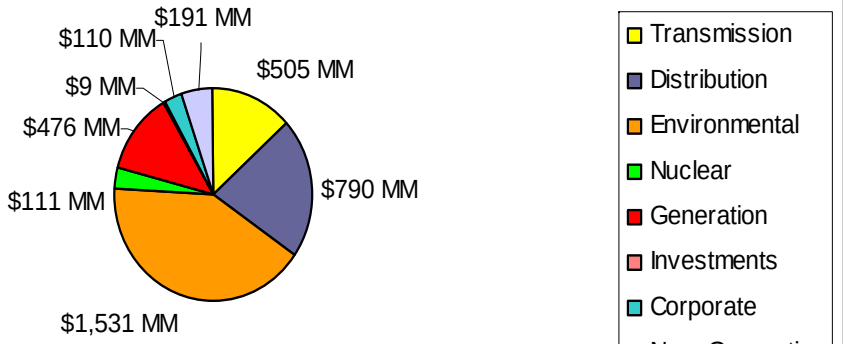
2004 Actual Totaled $1.7 Billion



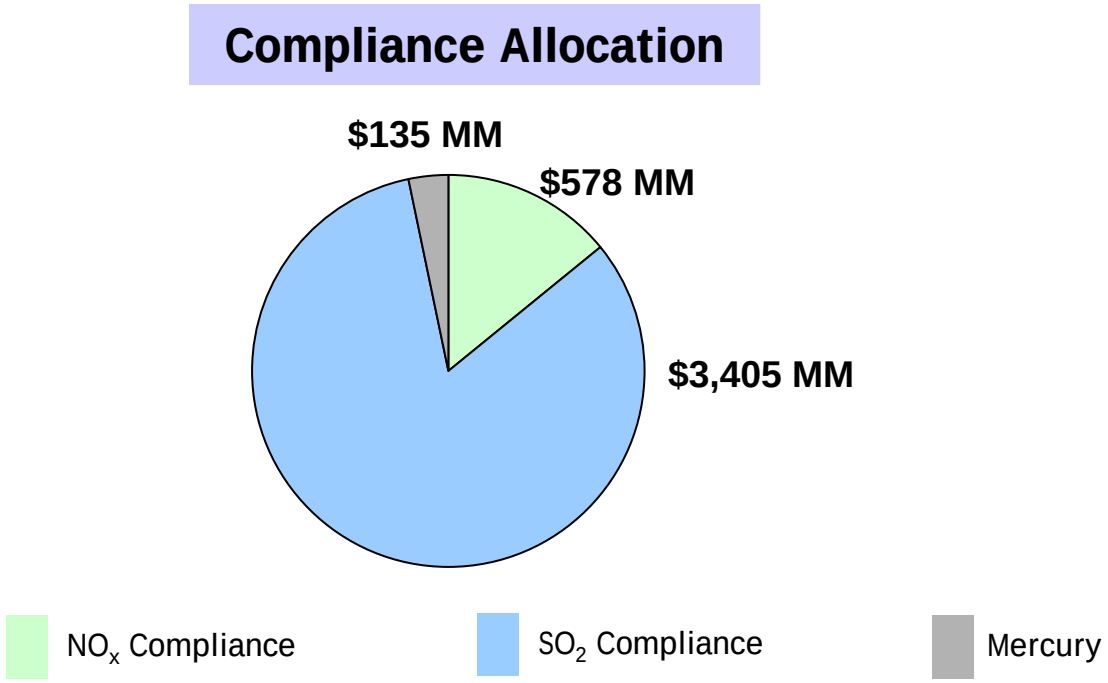
2005 Actual Totaled $2.5 Billion (see note below)



2006 Projected Totals $3.7 Billion



Environmental Compliance Investment



Current Programs

$2.0 Billion:

$0.5 Billion for NOx

$1.5 Billion for SO_2

Future Programs

$2.1 Billion:

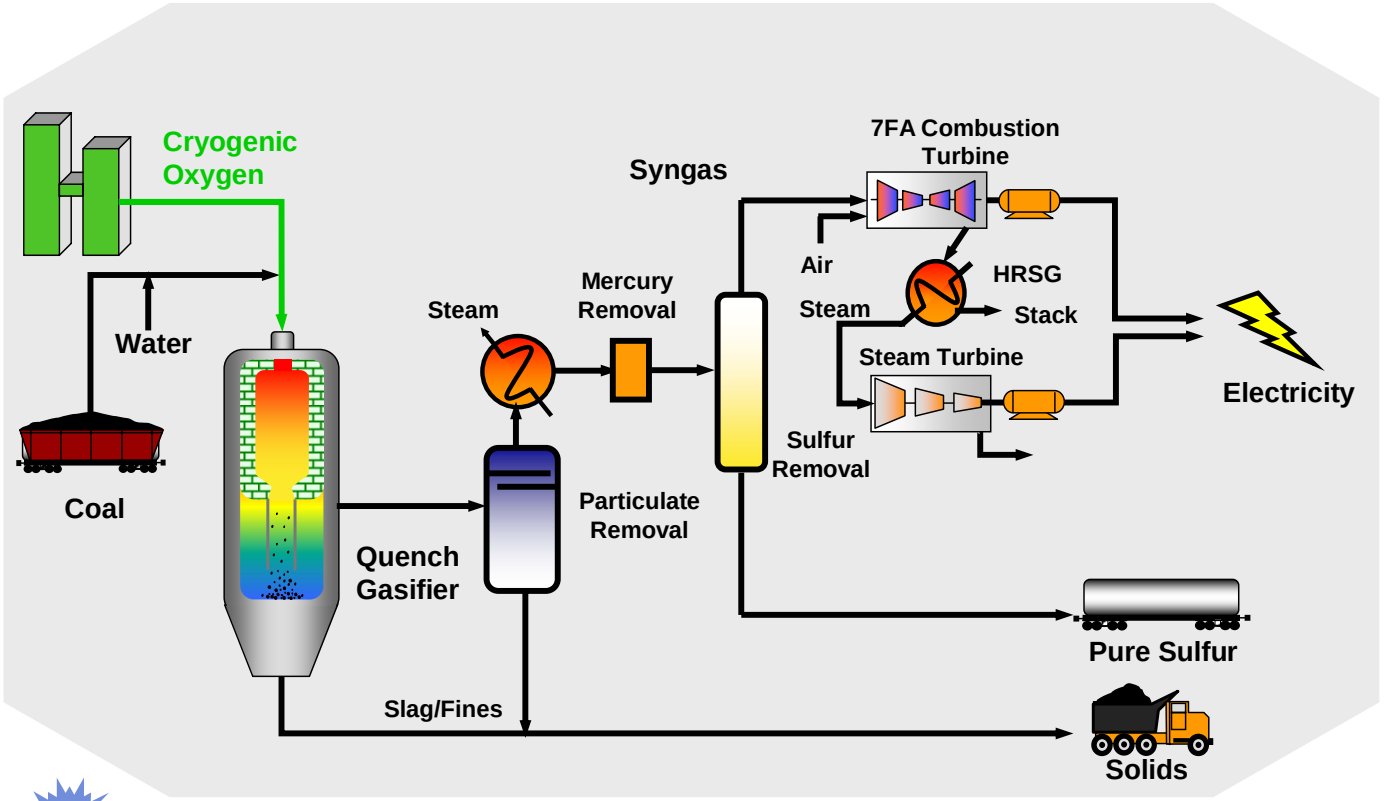
$1.9 Billion for SO_2

$0.2 Billion for Other

$4.1 BILLION ENVIRONMENTAL INVESTMENT

PROJECTED 2004 THROUGH 2010

Looking to the Future - IGCC



AEP HAS ANNOUNCED ITS INTENTION TO CONSTRUCT A COMMERCIAL-SCALE INTEGRATED GASIFICATION COMBINED CYCLE (IGCC) PLANT BY THE END OF THE DECADE

Investing in IGCC

Generation Technology Comparative Statistics

	PC	IGCC	NGCC
Nominal Capacity (MW)	**600**	**600**	**600**
Heat Rate (Btu/kWh)	**8700**	**8600**	**7200**
Total Plant Cost (EPC) ($/kW)	**1800**	**2000**	**600**
Production Cost ($/MWh)	**17**	**16**	**57**
Cost of Electricity, without CO2 Capture ($/MWh)	**64**	**69**	**97**
Estimated Cost of Electricity, with CO2 Capture ($/MWh)	**104**	**83**	**148**

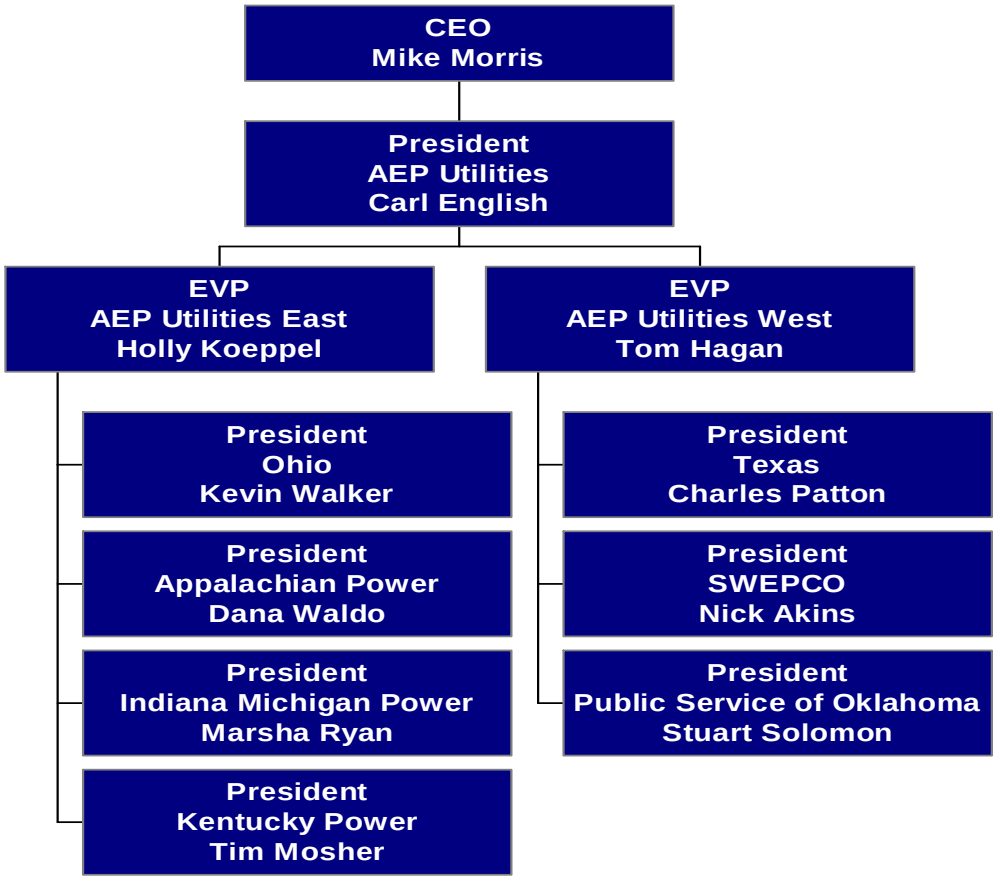
- Source: Results of AEP analysis based on EPRI studies.
- Total Plant Cost (2005$'s) includes the cost to **E**ngineer, **P**rocure and **C**onstruct plant; includes owner's costs; does not include transmission upgrades, or AFUDC.
- Assumes Northern Appalachian Coal price of $1.60 /mmBtu for PC and IGCC, and natural gas price of $7.50/mmBtu for NGCC.
- Assumes 85% capacity factor for PC and IGCC, 25% for NGCC.
- Variable Production Cost includes Fuel Cost and Variable Operations & Maintenance (VOM) cost.
- Cost of Electricity does not include the cost of Emission Credits; Cost of Electricity with CO2 capture does not include sequestration.

AEP Ohio Overview

Kevin E. Walker, President and COO

Ghana Delegation
February 7, 2006

Organizational Structure



SENIOR MANAGEMENT CLOSE TO CUSTOMERS AND REGULATORS

AEP System Overview

Business Strategy

AEP's strategy is to focus on domestic utility operations in the U.S. Our objective is to be an economical, reliable and safe provider of electric energy to the markets that we serve. We will achieve economic advantage by designing, building, improving and operating low-cost, environmentally compliant, efficient sources of power and maximizing the volumes of power delivered from these facilities. We will maintain and enhance our position as a safe and reliable provider of electric energy by making significant investments in environmental and reliability upgrades. We will seek to recover the cost of our new utility investments in a manner that results in reasonable rates for our customers while providing a fair return for our shareholders through a stable stream of cash flows, enabling us to pay dependable, competitive dividends. We will operate our competitive generating assets to maximize our productivity and profitability after meeting our native-load requirements.

In summary, our business strategy calls for us to:

Operations

- Invest in technology that improves the environment of the communities in which we operate
- Maximize the value of our transmission assets through membership in PJM, ERCOT and SPP
- Continue maintaining and improving the quality of distribution service
- Optimize generation assets by increasing availability and consequently increasing sales

Regulation

- Focus on the regulatory process to fully recover our costs and earn a fair return while providing fair and reasonable rates to our customers while fulfilling our commitment to invest in environmental projects at our generating plants and
- Recover stranded costs associated with our Texas generation assets in compliance with the law

Financial

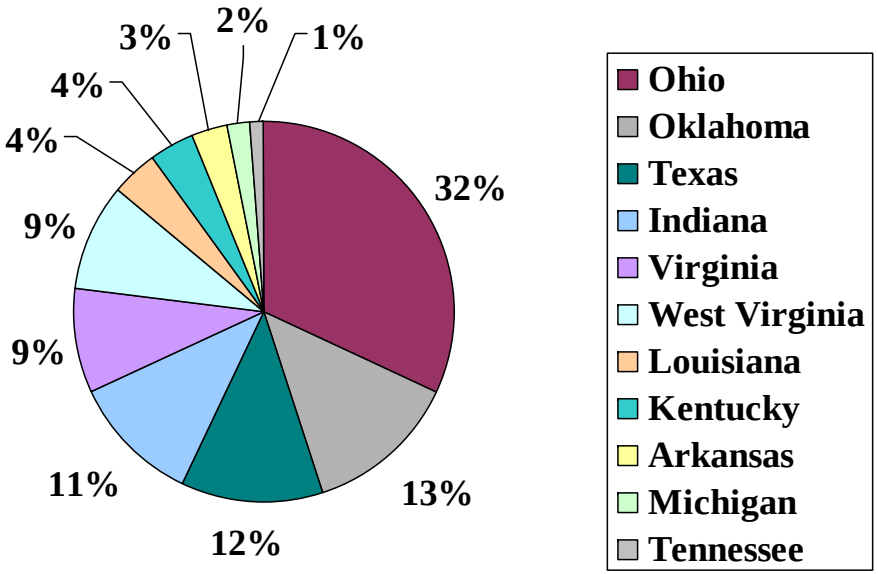
- Operate only those unregulated investments that are consistent with our energy expertise and risk tolerance and that provide reasonable prospects for a fair return and moderate growth
- Continue to improve credit quality and maintain acceptable levels of liquidity
- Achieve moderate but steady growth

AEP System 2004 Retail Revenue

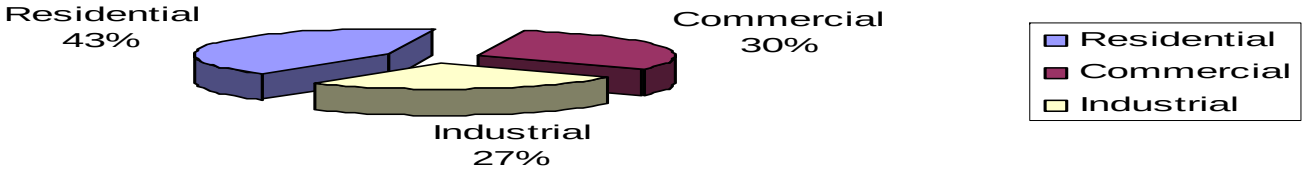
Customer Profile

AEP's service territory encompasses approximately 5 million customers in 11 states: Arkansas, Indiana, Kentucky, Louisiana, Michigan, Ohio, Oklahoma, Tennessee, Texas, Virginia and West Virginia.

Retail Revenue Composition by State



Retail Revenue Composition by Customer Class



AEP Ohio

President and Chief Operating Officer: Kevin Walker

Thumbnail profile and history:
AEP Ohio encompasses the AEP service territories within the state of Ohio and the Wheeling W.Va., area. AEP Ohio serves the customers of Ohio Power Company (organized in 1907) and Columbus Southern Power Company (organized in 1937) and Wheeling Power Company (organized in 1883) in northern West Virginia.

Principal industries served include metals, rubber & plastic products, stone, clay, glass & concrete products, petroleum, refining & chemicals, food processing, & paper.

AEP Ohio covers a service territory of 11,327 square miles, and currently has 1,468 employees.

Operating Information

Total Customers:	
• **Residential**	**1,276,000**
• **Commercial**	**167,000**
• **Industrial**	**11,000**
• **Other**	**3,000**
Total	**1,457,000**
Generating Capacity*	**11,992 MW**
Generating Capacity by Fuel Mix:	
• **Coal:**	**92.5%**
• **Natural Gas**	**7.1%**
• **Hydro:**	**0.4%**
Transmission Miles	**9,100**
Distribution Miles	**44,000**

*** includes Conesville Units 1 & 2 (250 MW) that were retired 12/31/05**

Financial Information

(In thousands, rounded)

2004 Revenue	**$3,670,000**	
% of AEP retail	**32%**	
2004 Net Income	**$349,000**	
2004 Capital Ex.	**$495,000**	
As of June 30, 2005:		
Total Assets	**$8,857,000**	
Net Plant Assets	**$6,591,000**	
Cash	**$1,040**	
CSP		
Debt	**$988,000**	**(52%)**
Equity	**$919,000**	**(48%)**
OP		
Debt	**$1,793,000**	**(52%)**
Equity	**$1,643,000**	**(48%)**

AEP Ohio - Who we are

- Largest of AEP's regional utility divisions
- Comprised of Columbus Southern Power and Ohio Power
- Approximately 1,450 employees
- Nearly 1.5 million customers in Ohio and West Virginia
  - In Ohio
    - We provide power to more than 900 communities
    - Serve customers in 61 of 88 counties
  - In West Virginia
    - Serve approximately 40,000 customers in Ohio and Marshall counties
- AEP Ohio headquarters in Gahanna, OH, with state offices in downtown Columbus

AEP Ohio Leadership Team

Kevin Walker
President & COO

Gene Jensen	Jane Harf	Karen Sloneker	Selwyn Dias	Matt Kyle	Doug Flowers
VP Distribution	*VP External Affairs*	*Dir Cust Serv & Mktg*	*Dir Regulatory Svcs*	*Dir Bus Ops Support*	*GM Communications*
Leads 1,040 employees	Leads 3 employees	Leads 390 employees	Leads 5 employees	Leads 3 employees	Leads 11 employees

Support Staff

Jeff Keifer	Cynthia Butler-Carson	Randy Knight	Fay White	Kacy Weaver
Human Resources	*Legal Counsel*	*Safety & Health*	*Admin Assistant*	*Dept Assistant*

Recent Accomplishments

- Approval of rate stabilization plan
- Acquisition of Monongahela Power service territory
- Continued planning for IGCC plant in southeastern Ohio
- Significant mutual assistance effort to storm ravaged areas of the U.S.

Our Focus

- Safety
- Reliability
- Customer satisfaction
- Financial performance

Regulatory Affairs and Economic Development

Selwyn J. Dias, Director

Regulatory Affairs and Economic Development

- Two Primary Areas Of Focus:
  - Regulatory Services
    - Public Utilities Commission of Ohio
    - Ohio Consumers' Counsel
    - Customers (Industrial, Commercial and Residential)
  - Economic Development
    - Ohio Department of Development
    - Chambers of Commerce

Regulatory Affairs and Economic Development

- Regulatory Services
  - Public Utilities Commission of Ohio
    - Rates and Regulations
      - ✓Public Policy Advocacy
      - ✓Electric Service Reliability
      - ✓Electric Service Safety Standards
      - ✓Commission Customer Complaints
      - ✓Revenue Requirements

Regulatory Affairs and Economic Development

- Regulatory Services
  - Public Utilities Commission of Ohio
    - Commissioner and Staff Relationships
      - ✓Staff Education on Electric Operations
      - ✓Operating Best Practices

Regulatory Affairs and Economic Development

- Regulatory Services
  - Ohio Consumers' Counsel
    - ✓ Residential Customer Advocate
    - ✓ Unique Needs (i.e. demand side management, low income programs, etc.)
  - Customers
    - ✓ Tariff Administration (Terms and Conditions; Appropriate Tariff)
    - ✓ Load and Energy Consumption (see next slide)

Regulatory Affairs and Economic Development

AEP-Ohio 2005 Energy by Sector						
	Columbus Southern		Ohio Power		AEP-Ohio	
	Energy	Share	Energy	Share	Energy	Share
Sector	(MWh)	(%)	(MWh)	(%)	(MWh)	(%)
Residential	7,350,949	40.2	5,058,771	21.7	12,409,720	29.9
Commercial	8,216,654	45.0	5,823,885	25.0	14,040,539	33.8
Industrial	2,659,566	14.6	12,298,304	52.8	14,957,870	36.0
Other Retail	51,203	0.3	83,782	0.4	134,985	0.3
Ohio Sales for Resale	0	0.0	7,063	0.0	7,063	0.0
Total Ohio Energy	18,278,372	100.0	23,271,805	100.0	41,550,177	100.0

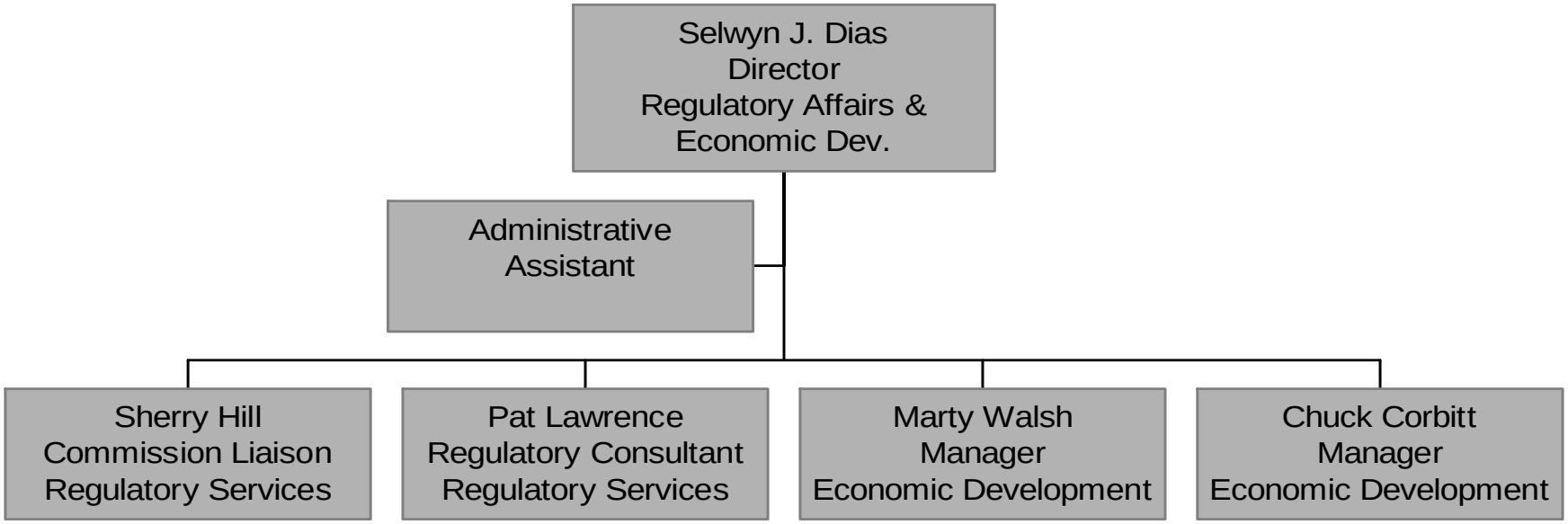
Regulatory Affairs and Economic Development

- Economic Development
  - $11.2M Funding for Economic Development (Three Years)
  - Ohio Department of Development
    - ✓Prospect Solicitation Partnership
    - ✓Criteria for Qualifying Prospects (Jobs, Investment, Tax Revenue, KWh)
    - ✓$100K Grant

Regulatory Affairs and Economic Development

- Economic Development
  - Chambers of Commerce
    - ✓Economic Development Seminars

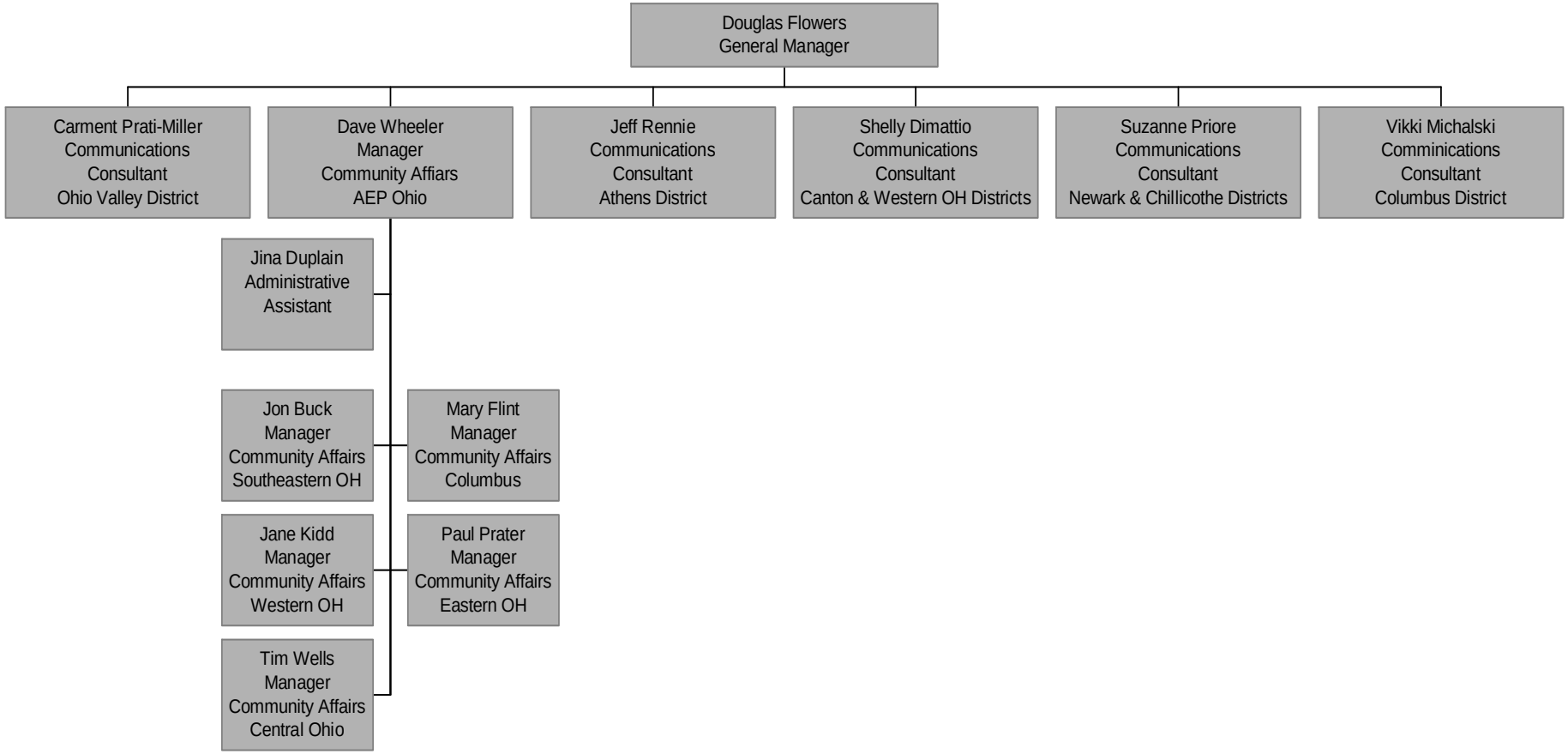
Regulatory Affairs and Economic Development



Community Affairs and Communications

Doug Flowers, General Manager

Community Affairs and Communications



Community Affairs and Communications

- Thirteen employees
- Geographically dispersed throughout Ohio
- Focused on local relationships
  - Media
  - Community
  - Civic organizations
  - Other internal business units

Community Affairs

- The local “face” of AEP Ohio
- “Intelligence” gathering
- Issues identification and management
- Leverage community involvement and sponsorships
- Support economic development activities
- Develop and maintain strategic local relationships:
  - Elected officials at the local, county and state levels
  - Civic organizations (e.g. Rotary)
  - Chambers of Commerce
  - Education community

Corporate Communications

- Develop and maintain key relationships with the media
- Identify opportunities to positively position AEP Ohio in our markets
- Leverage sponsorships and advertising to strengthen company image and reputation
- Issues identification and management
- Crisis management
- Strong relationships with internal business units

AEP Ohio External Affairs

Governmental and Environmental Affairs

Jane Harf, Vice President

Areas of Focus

- The Ohio General Assembly
- The Office of the Governor
- The Executive Agencies
- Electoral Activity
- Policy Development
- Coalitions and Associations
- Contributions and Sponsorships

The General Assembly: House of Representatives & Senate

- Leadership
- Committees of Jurisdiction
  - Public Utilities
  - Environment
  - Natural Resources
  - Economic Development
  - Ways & Means [Taxes]
  - Finance [Budget]
- Service Territory Members

The Office of The Governor

- Governor
- Chief of Staff
- Executive Assistants for Substantive Areas

The Executive Agencies

- Ohio EPA
- Department of Natural Resources
- Department of Development
- Public Utilities Commission
- Department of Taxation
- Office of Budget and Management

Electoral Activity

- AEP PAC: Committee for Responsible Government
  - Solicitations
  - Member Events
  - Budget
  - Strategic Planning

Policy Development

- Coordinate the development of positions on issues of concern to the company and the industry
  - Between various organizations within AEP
  - Among the Investor Owned Utilities
  - Within the Broader Governmental Community

Coalitions and Organizations

- Participation in coalitions of mutual interest:
  - Ohio Coal Association
  - Ohio Chemistry Technology Council

Coalitions and Organizations

- Membership in organizations that represent our public policy interests
  - Ohio Electric Utility Institute
  - Ohio Chamber of Commerce
  - Ohio Public Expenditure Council
  - Ohio Manufacturers' Association

Contributions and Sponsorships

- Support the activities of charitable organizations
  - Children's Hunger Alliance
  - Foundation for Appalachian Ohio
  - Habitat for Humanity

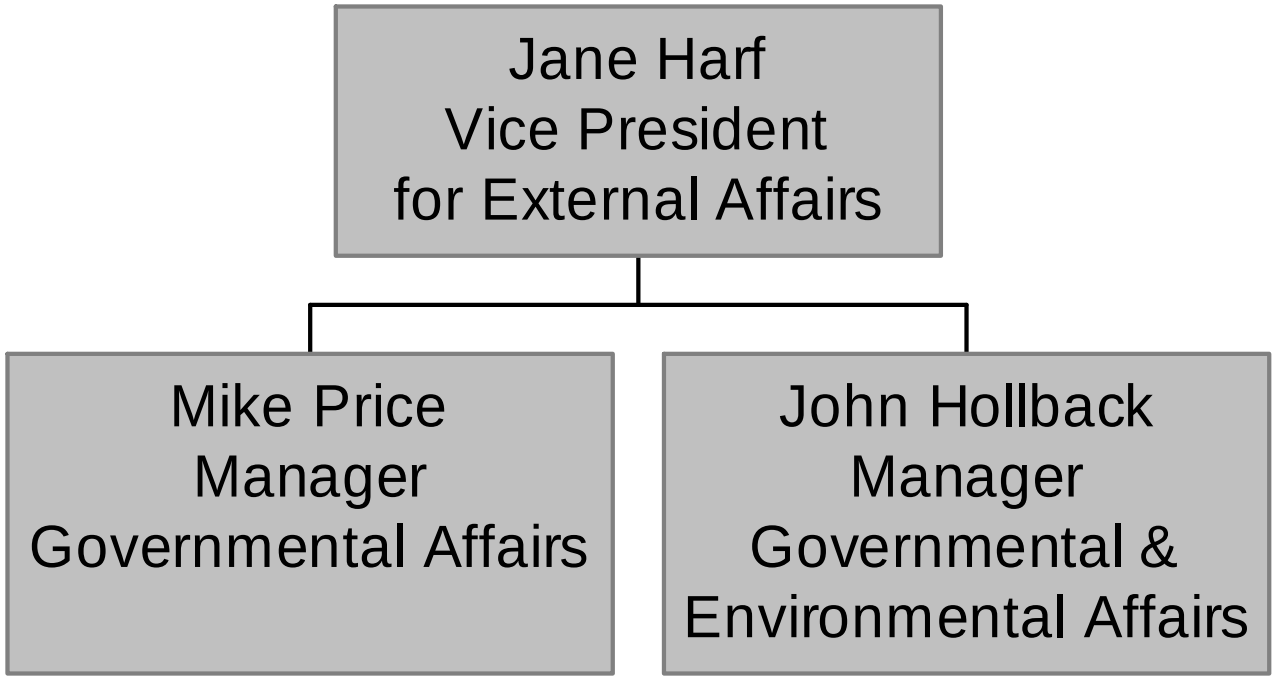
Contributions and Sponsorships

- Support Academic Public Policy Programs
  - OSU: John Glenn Institute
  - Ohio University: Voinovich Center

Contributions and Sponsorships

- Support Environmental Stewardship
  - Franklin Park Conservatory
  - The Nature Conservancy
  - Environmental Education Association

Personnel


Jane Harf
Vice President
for External Affairs
Mike Price
Manager
Governmental Affairs
John Hollback
Manager
Governmental &
Environmental Affairs

Distribution Operations

Gene Jensen, Vice President

Our Mission – Bringing *comfort* to our *customers*, supporting *business* and *commerce*, and building strong *communities*.

Who are we?

- Gene Jensen- Vice President of Distribution Operations
  - Reporting to Gene-
    - Tim Seyfang- Manager of Athens District
    - Ed Mowrer- Manager of Canton District
    - John White- Manager of Chillicothe District
    - Don Schaal- Manager of Columbus District
    - Gary McGhee- Manager of Newark District
    - Phil Lewis- Manager of Ohio Valley District
    - Rick Gard- Manager of Western Ohio District
    - Ken Hamilton- Region Support Manager
    - Bob Ivinskas- Region Support Manager
    - Tom Lukowski- Region Support Manager
    - Terry Deskins- DDC Manager
    - Joel Trad- Reliability/Forestry Manager
    - Lynette Carozza- Senior Administrative Associate

DISTRIBUTION OPERATIONS

- PRIMARY AREAS OF FOCUS
  - Safety
  - Customer Satisfaction/Reliability
  - Employee Development
  - Major Outage Restoration

DISTRIBUTION OPERATIONS

Safety

- Safety is our main focus with the community and our employees
- How we promote safety
  - Safety stand-down days
  - Job briefings/safety huddles
  - Safety councils and meetings
  - Promote world class safety standards

DISTRIBUTION OPERATIONS

Customer Satisfaction/Reliability

- What are our goals in customer satisfaction and reliability?
  - To deliver the best service in a timely manner to our customers in ways that improve their quality of life
  - To meet or exceed our customers' expectations

DISTRIBUTION OPERATIONS

Employee Development

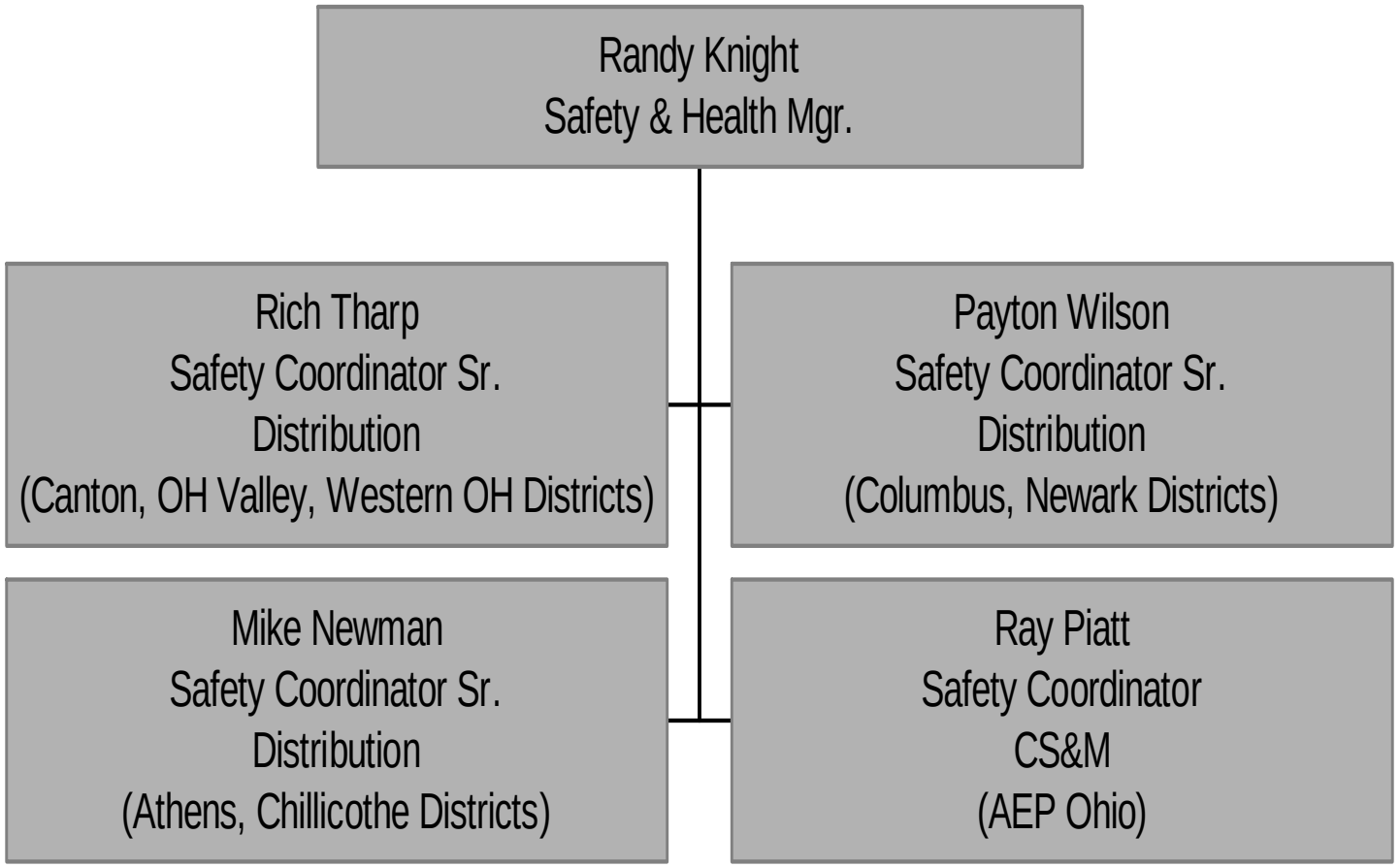
- Respect our people and give them the opportunity to be as successful as they can be
- Promote diversity (everyone counts)
- Promote trust, teamwork and work/life balance
- Provide the best work environment for all of our employees

DISTRIBUTION OPERATIONS

Major Outage Restoration

- To restore the power to all of our customers in a safe and timely manner (incident command system)
- To assist our fellow utilities with outages due to hurricanes or other weather related events
- To improve our reliability and utilize employee ideas for continuous improvement

AEP Ohio Safety & Health



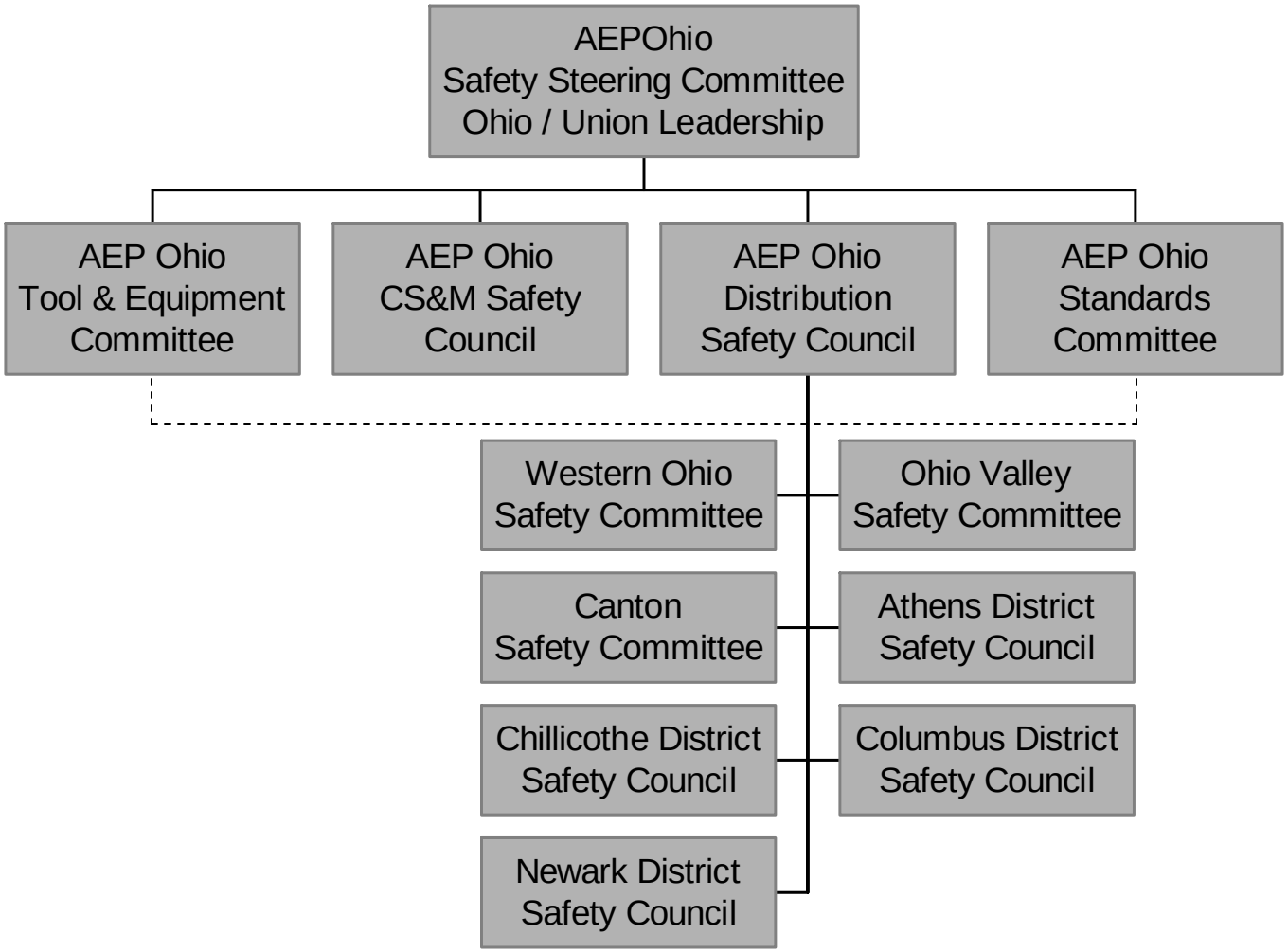
#1 Guiding Principle: Safety First – Enough Said.

AEP Ohio Safety & Health

Safety Team Responsibilities

- Safety consultants
- Record, track & analyze safety incidents
- Coach investigation teams
- Safety observations/crew visits/inspections
- Develop & implement safety training
- Rules & procedures/compliance issues
- Share best practices

AEP Ohio Safety & Health

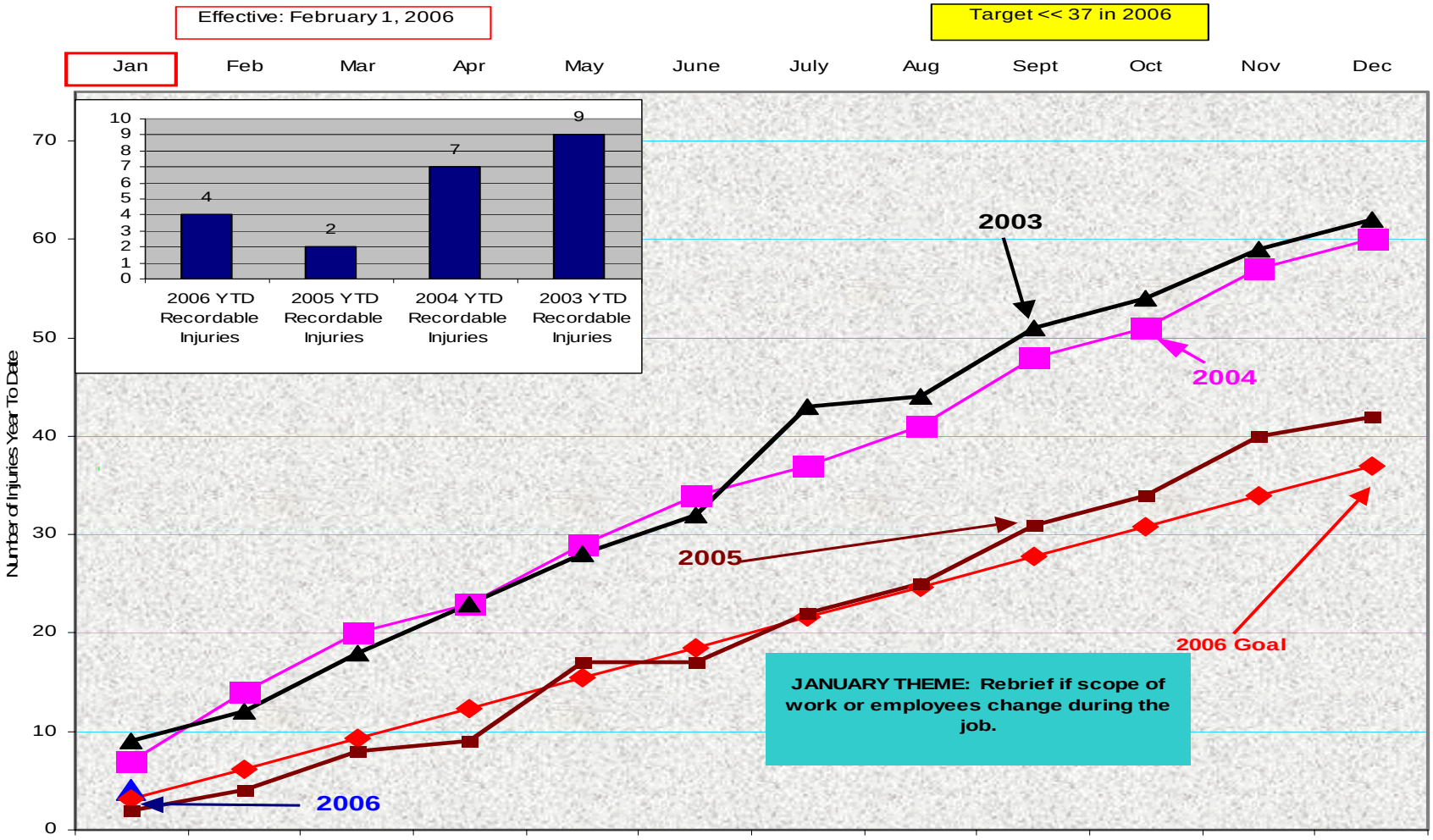


AEP Ohio Safety & Health

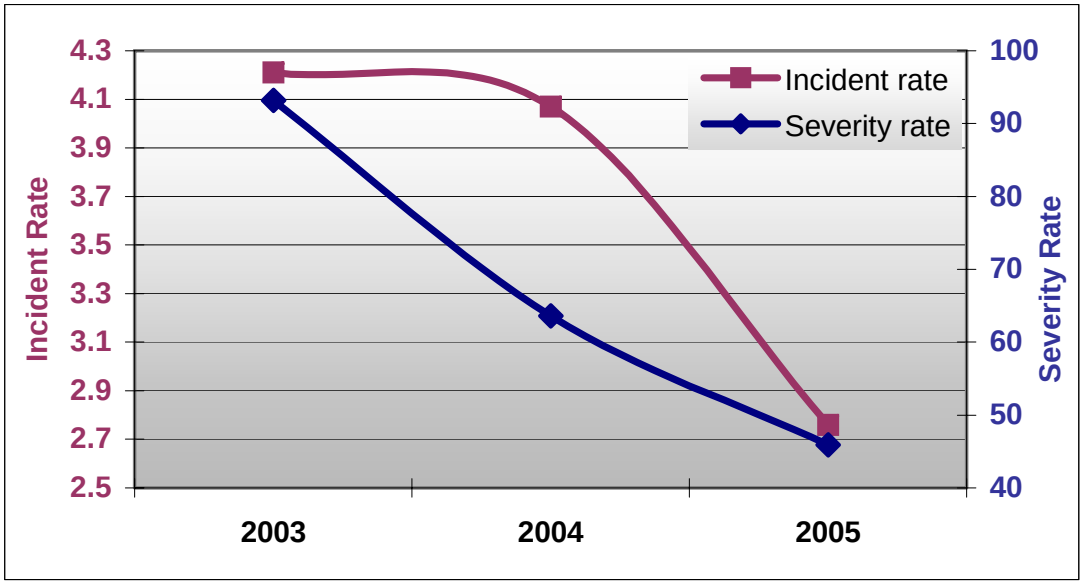
Safety Activities

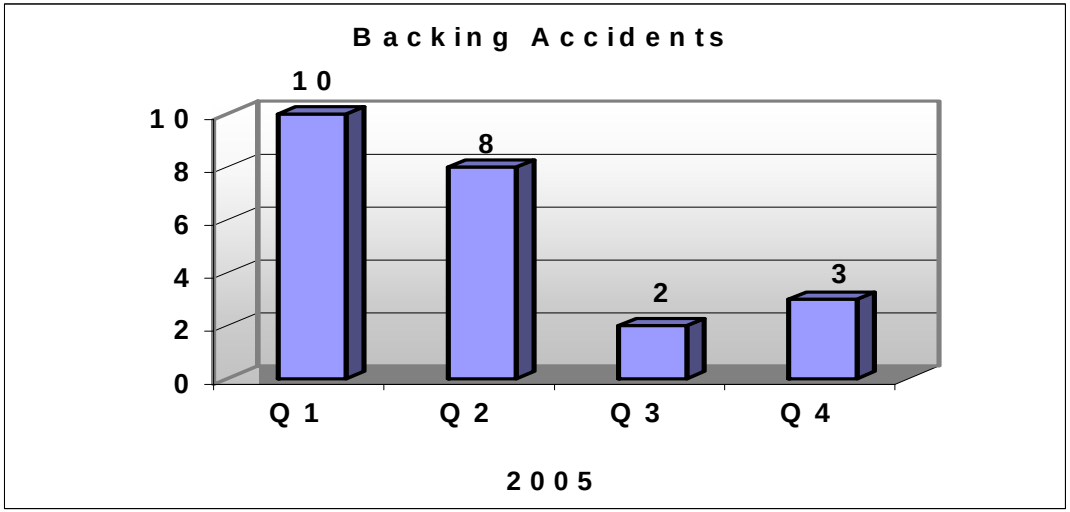
- Daily safety huddles
- Near miss / hazard recognition reporting
- Stretch & flex
- Circle for safety
- Daily safety messages, radios, handhelds, laptops
- Safety stand down days
- Behind the wheel driver training

AEP Ohio Injury Performance



AEP Ohio Safety & Health

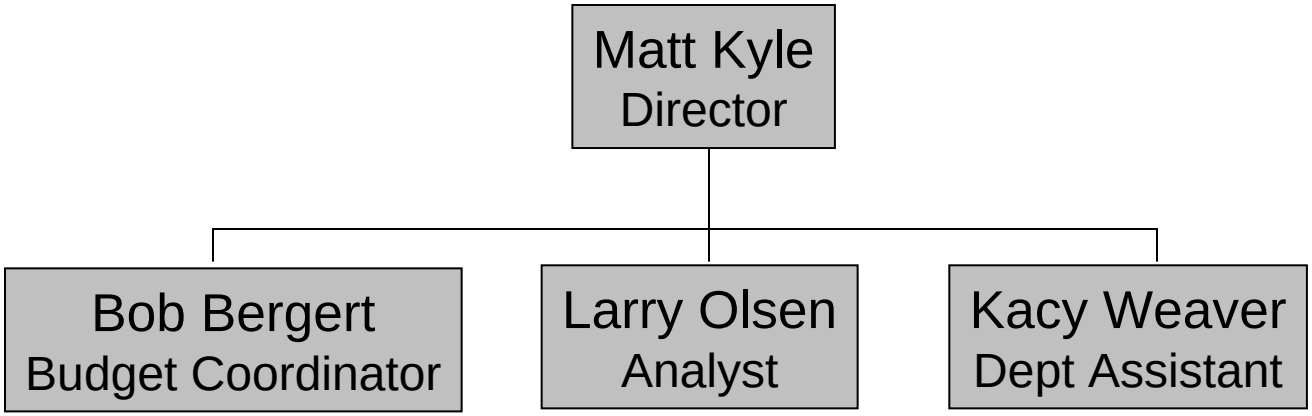




Business Operations Support

Matt Kyle, Director

Business Operations Support



Financial Performance

Manage $300+ million budget

- *Develop O&M and Capital budget*
- *Monitor monthly performance against budget*
- *Detailed analysis of expenditures*
  - *By Department*
  - *By major work category*
  - *By cost component*
- *Recommend corrective actions*
- *Re-project year-end spending levels*

2006 Budget ***Project Type***	**O&M ($M)**	**Cap ($M)**	**Total ($M)**
Customer Service	9	46	55
Asset Programs	21	30	51
System Planning Projects	1	41	42
Storm Restoration	17	3	20
Forestry Program	13	2	15
Transformers & Meters	0	19	19
Externally Driven Work	3	5	8
PJM	23	0	23
Fleet	11	9	20
Overheads	45	13	58
Total	**143**	**168**	**311**

Monitor monthly/quarterly earnings

- *Review and analyze full income statements for the Ohio Companies*
  - *Columbus Southern Power Company*
  - *Ohio Power Company*
  - *Wheeling Power Company*
- *Monitor performance against forecast*
- *Quarterly re-projections*

AEP Ohio Contribution

- *Customers ~ 30% of AEP System*
- *Revenues ~ 30% of AEP System*
- *Earnings ~ 35% of AEP System*

Strategic Planning

- *Coordinate long-term planning efforts with Corporate Planning & Budgeting group and Regulatory Services*

Performance Targets

Monitor performance against targets

Financial Targets	*Reliability Targets*	*Customer Targets*	*Safety Targets*
Net Income	SAIFI	Commission Complaints	Accident Rate
O&M Budget	CAIDI	Customer Satisfaction	Severity Rate
Capital Budget	SAIDI		Vehicle Accidents

Report quarterly performance to Chairman

Growth Strategy

Wholesale	Non-electric Service	Productivity
Attract new customers Municipalities in Ohio	Telecom / Wireless Joint-use Attachments Other Services	Distribution Meter-reading Reliability

Econ Development	M&A Opportunities
Attract business Foster growth	Distressed assets Other utilities/customers

General Activities

- **Provide guidance on accounting/budgeting policy and time & expense reporting**
- **Manage spend authorization limits**
- **Review monthly charges from service corp**
- **SOX testing / internal controls (fixed assets)**
- **Respond to various requests for information (usually budget information) from corporate office**

Customer Services and Marketing

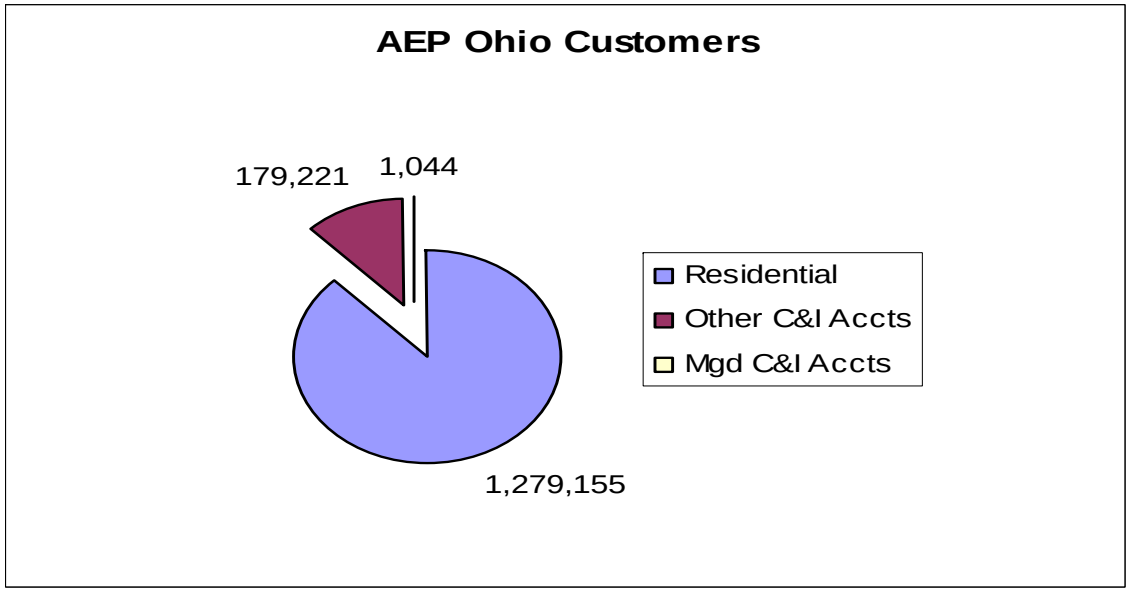
Karen Sloneker, Director

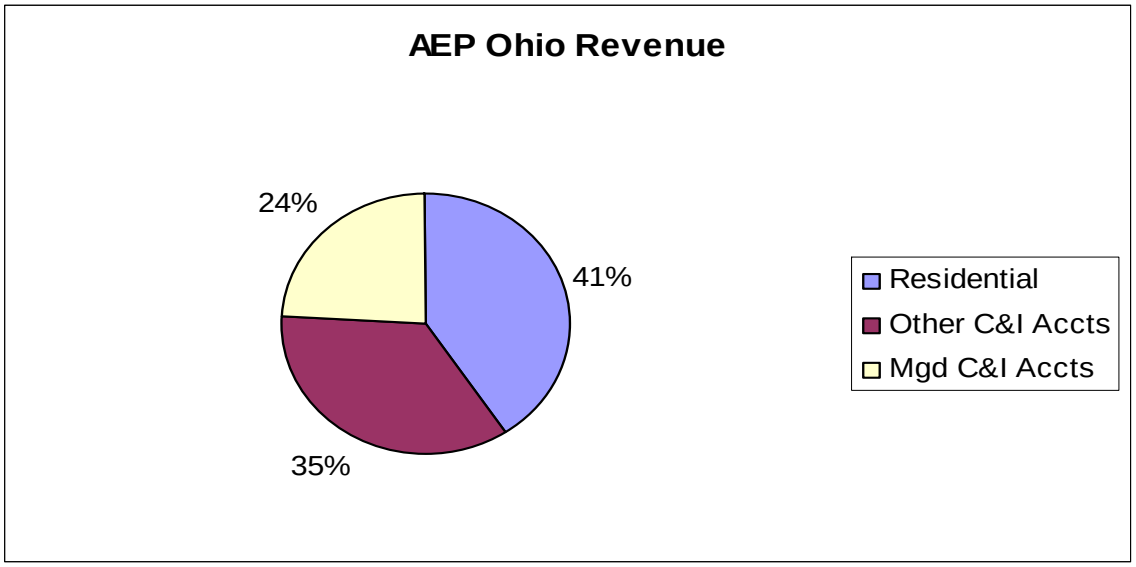
Customer Services and Marketing

- Customer Service and Marketing
  - Managed accounts
  - Small commercial and industrial
  - Residential
- Meter Revenue Operations
  - Meter reading
  - Field specialists (Collections)
  - Meter services
  - Revenue protection

What are Managed Accounts?

- Large Commercial, Industrial or Municipal customers
- Account demands are typically greater than 750 kW
- Technically complex or politically sensitive accounts
- Largest industrial customers managed by engineers; other accounts managed by engineers or other technically experienced personnel with excellent interpersonal skills
- Account managers provide a single point of contact for those customers and handle service, reliability and account maintenance needs.


AEP Ohio Customers
179,221
1,044
1,279,155
Residential
Other C&I Accts
Mgd C&I Accts


AEP Ohio Revenue
24%
41%
35%
Residential
Other C&I Accts
Mgd C&I Accts

Meter Readers & Field Specialists Workload in 2005

Meter Reading	
Meters Read	17,756,044

Field Specialists	
Orders Worked	415,180
Accounts Disconnected for Non-Payment	82,064
Total	**497,244**

Meter Services Workload in 2005

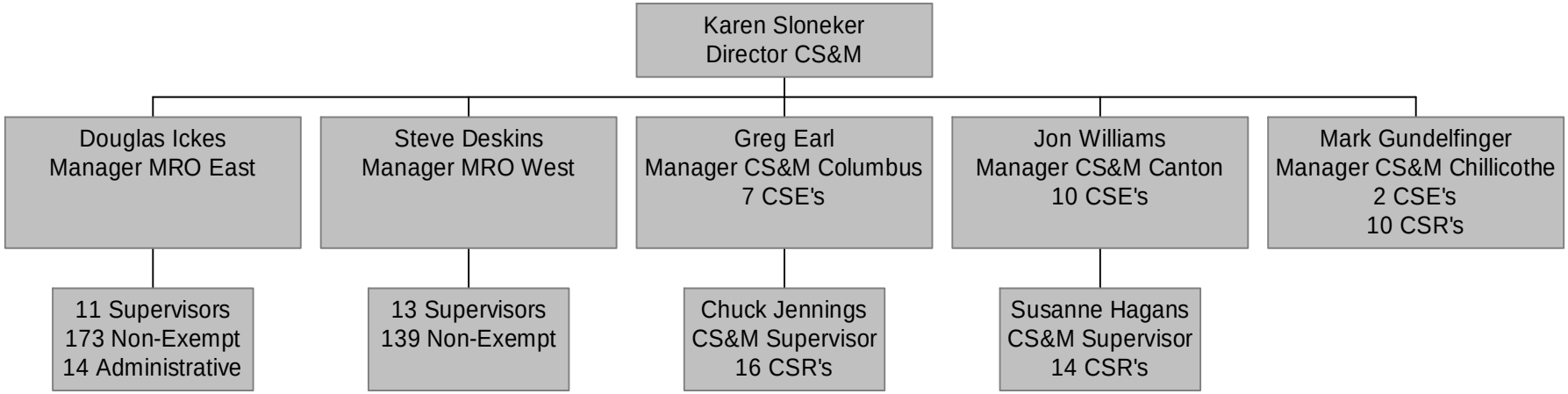
Line Device Inspections	
Hydraulic Reclosure	6,320
Electronic Reclosure	1,423
Capacitor	3,583
Regulator	2,246
Total	**13,572**

Meter Services Workload in 2005

Meter Maintenance	
Periodic	4,189
Samples	967
Maintenance	6,047
CT Inspections	155
Total	**11,358**

Miscellaneous Meter Work	
Change Orders	133,396
Disconnect/Reconnect/Credit Orders	1,119
Open/Close/New Install Orders	3,955
Device Testing and Investigation Orders	28,222
Total	**166,692**

Organizational Overview



American Electric Power

Transmission Overview

Delegation From Ghana

February 7, 2006

Max Chau

Manager

East Transmission Planning

Transmission Asset Management

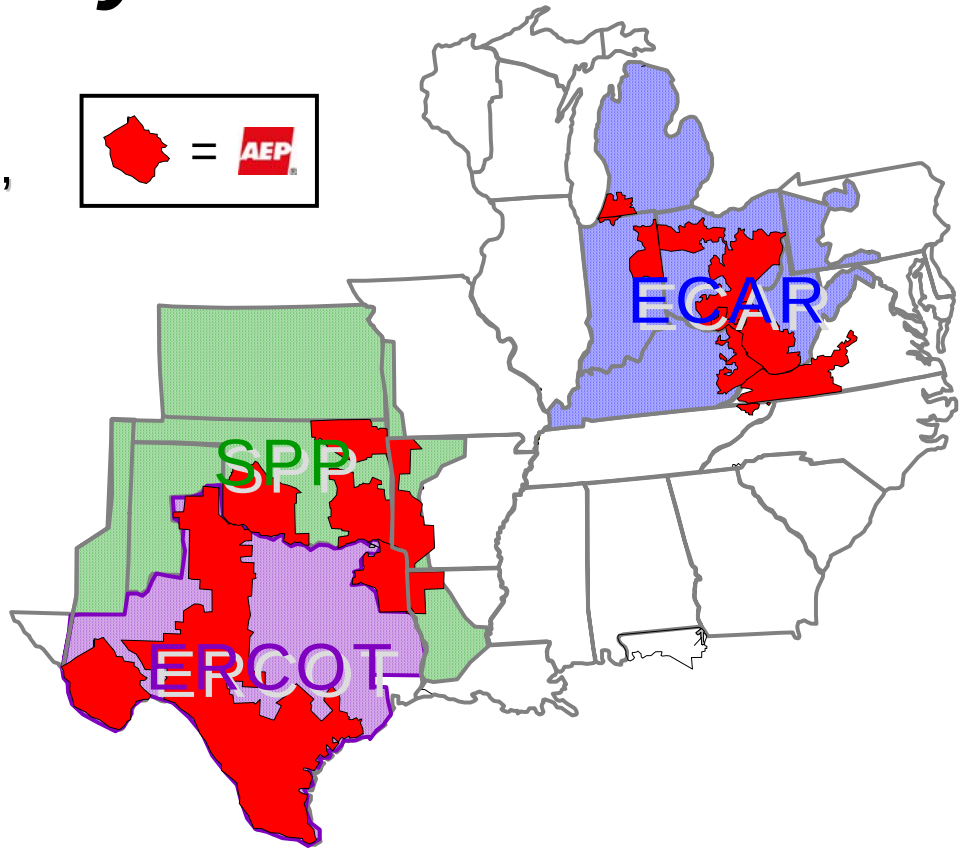
American Electric Power

AEP System

- Headquarters – Columbus, OH
- Over 5 million Customers
- Approximately 20,000 Employees
- Total Revenue (2004)

  = $14.1 billion
- Total Assets (2004)

  = $34.7 billion



AEP Operates in Portions of 11 States – 197,500 square miles, 11 Operating Companies

Key AEP Transmission Statistics

- Total circuit miles of transmission lines = 38,900
  - Including 2,026 circuit miles of 765 kV lines
- Total number of stations maintained by Transmission organization = 3,500
- Total number of interconnections with other utilities = 287
- Total investment (2004) = $6.27 billion
- Total transmission employees (2006 approved complement) = 1,780

AEP IS THE LARGEST TRANSMISSION COMPANY IN THE USA

Opportunity:
Energy Policy Act 2005

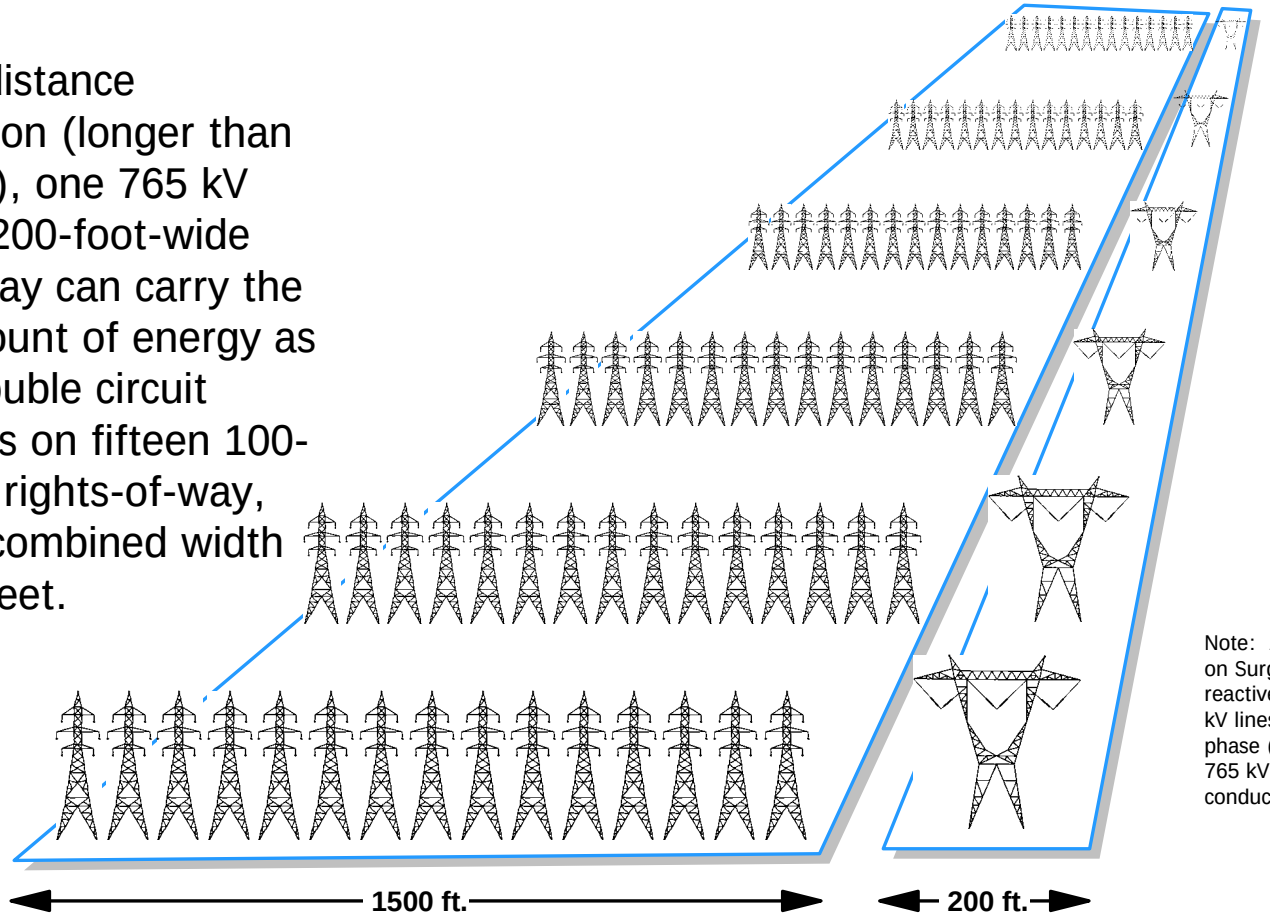
- Incentives for transmission development
- FERC approval of “participant funding”
- FERC “backstop” siting authority
- A directive that DOE study and identify “national interest electric transmission corridors” (NIETC)

Transmission Opportunities

- Incentives for transmission development to achieve:
  - Economic opportunity (i.e., market efficiency)
  - Environmental optimization
  - National security

Benefit of 765 kV Over Lower Voltage Lines

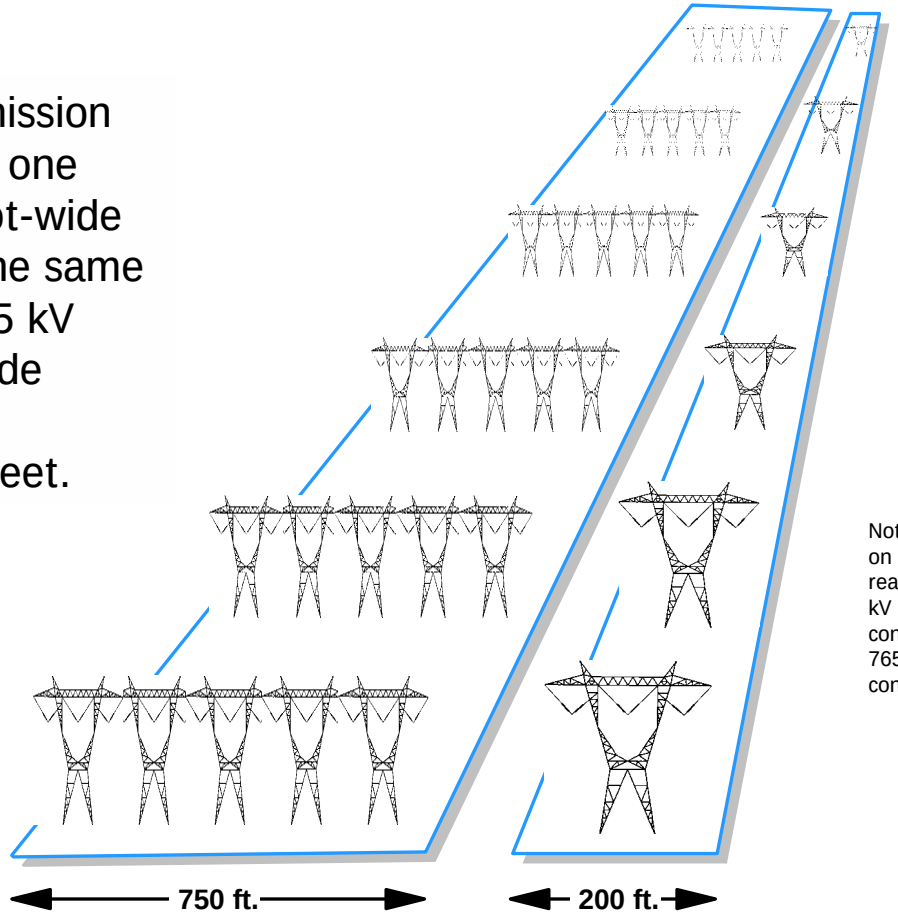
For long distance transmission (longer than 100 miles), one 765 kV line on a 200-foot-wide right-of-way can carry the same amount of energy as 138 kV double circuit tower lines on fifteen 100-foot-wide rights-of-way, having a combined width of 1,500 feet.



Note: Approximate relationship based on Surge Impedance Loading (i.e., reactive power balance point) of 138 kV lines with single conductor per phase (double circuit) compared to 765 kV single circuit lines with four conductors per phase.

Benefit of 765 kV Over Lower Voltage Lines

For long distance transmission (longer than 100 miles), one 765 kV line on a 200-foot-wide right-of-way can carry the same amount of energy as 345 kV lines on five 150-foot-wide rights-of-way, having a combined width of 750 feet.



Note: Approximate relationship based on Surge Impedance Loading (i.e., reactive power balance point) of 345 kV single circuit tower lines with two conductors per phase compared to 765 kV single circuit lines with four conductors per phase.

Asset Management

Integrated capital planning, system engineering and maintenance management processes that support a singular reliability performance-driven strategic approach to managing transmission asset

Reliability Must be Maintained and Optimized

The Concept

- Each component of the power system must be capable to perform to expectations.
- Life-cycle – from concept to planning, design, engineering, construction, operation, maintenance and replacement – of each component must be carefully optimized for its entire life-cycle.
- Local area reinforcement must be considered in the optimization.
- Performance Management is key to optimization.
- R&D effort is needed to meet new requirements.

Always keeping Reliability as the focus

Reliability Must be Maintained and Optimized

The Process

- Establish databases to determine critical component data, including:
  - Types of equipment
  - Age and condition
  - Failure history
  - O&M and replacement records
- Analyze and monitor asset conditions and actual performance data to optimize system improvements, equipment replacement, rehabilitation, and O&M strategies.
- Conduct root-cause analysis to address the causes – not the symptoms.
- Evaluate actual performance to assure focus on reliability.

Optimize by Identifying Opportunities

- Develop standards to adopt “best practices.”
- Eliminate process bottlenecks from planning to operation.
- Develop information tools for feedback into process improvement.
- Replace obsolete or high maintenance equipment with new technology.
- Develop a long-term view to capture economies of scale and procurement savings.

Summary

- AEP's large transmission infrastructure and potential growth give rise to unprecedented asset management challenges
- A reliability-focused Transmission Asset Management Optimization approach has helped AEP effectively deal with unprecedented changes in the industry.
- A reliability-focused Transmission Asset Management Optimization approach is expected to continue to be used effectively to deal with new emerging issues.

IGCC: A Coal-Based Generation Option for the Future

Presentation to Ghana Delegation & Guests

Columbus, OH

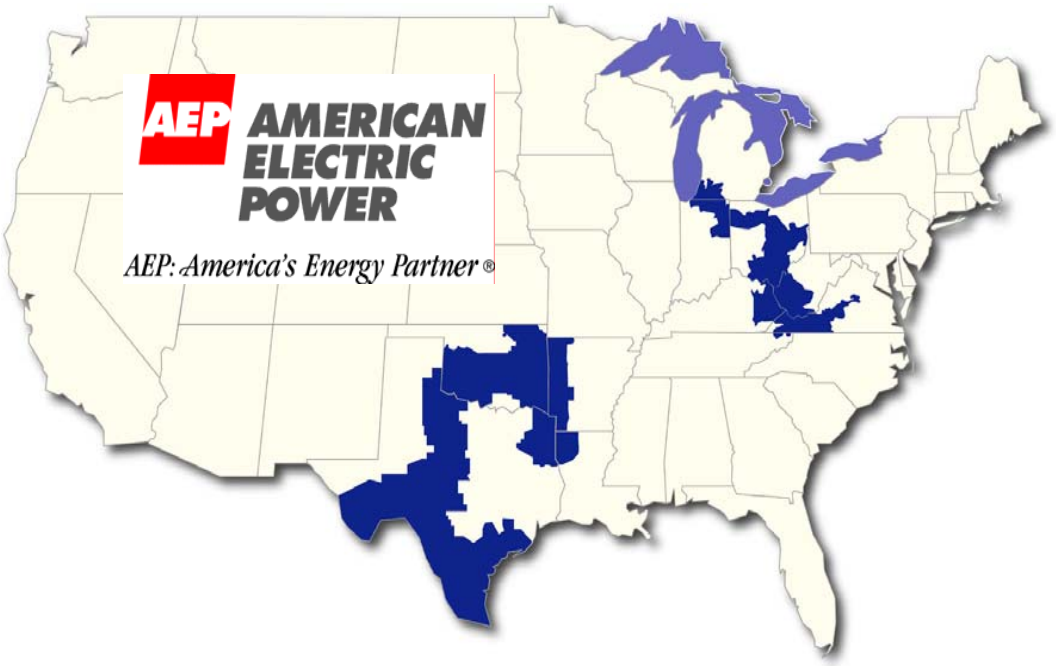
February 7, 2006

Dale E. Heydlauff

Vice President-New Generation

deheydlauff@aep.com

AEP: An Introduction



- **Largest U.S. electricity generator (36 GW)**
- **Largest consumer of coal in Western Hemisphere**
- **240,000 miles of T&D lines**
- **5 million customers in 11 states**

AEP's Generation Portfolio

	Coal	Gas	Nuclear	Hydro	Wind
	75%	15%	6%	3%	1%

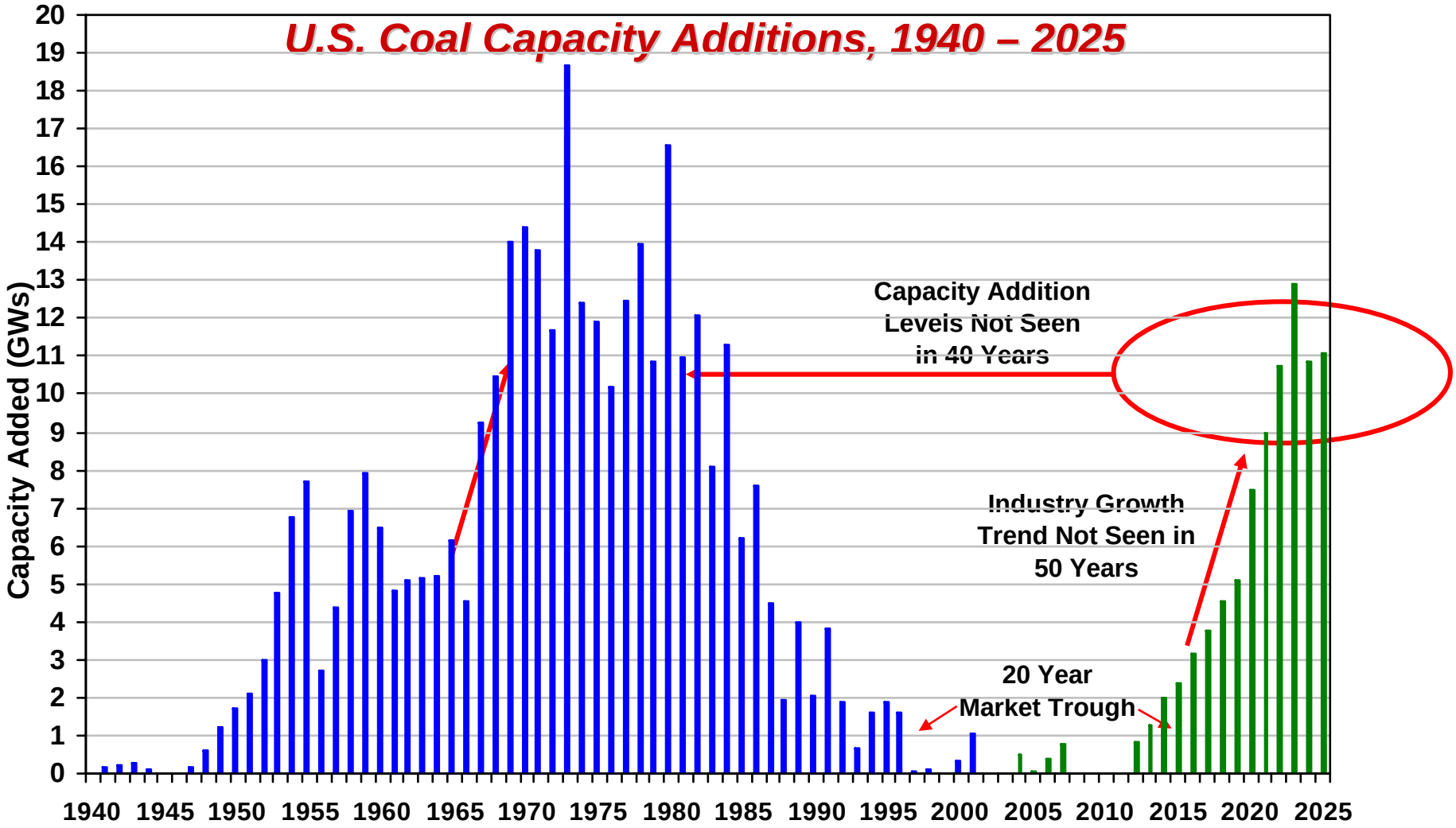
Now is the Time to Upgrade our Nation's Electricity Infrastructure

- **70% load growth in past 25 years**
  - **Little new baseload capacity added**
  - **Little new transmission added**
- **Nuclear generation capacity reaching output limit**
  - **1990 66% capacity factor**
  - **2004 91% capacity factor**
- **Coal generation capacity becoming fully utilized**
  - **1990 59% capacity factor**
  - **2004 74% capacity factor**
- **Demand expected to grow another 20% over next 10 years**
  - **Long lead time for baseload generation capacity**

Electric Power's Future

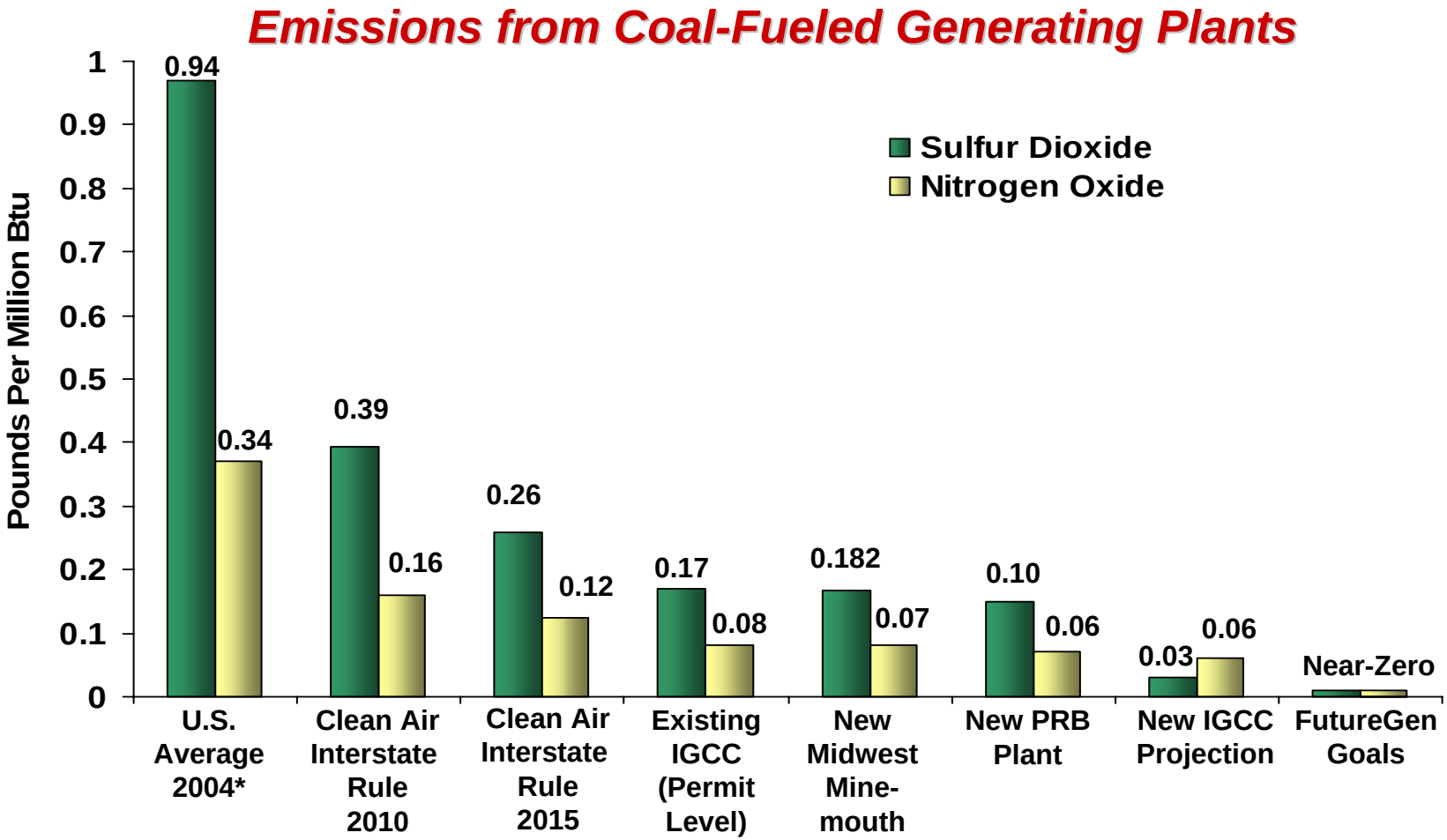
- **Population growth and increased electrification requires about 250-300 GW of baseload generating capacity over next 25 years**
- **No silver bullet … Need a portfolio**
- **Future demand probably met largely by coal:**
  - **Gas supply issues and price volatility in North America**
  - **LNG imports will exacerbate U.S. trade imbalance**
  - **Nuclear could be revived, but probably decades away from a major resurgence**
  - **Renewables (particularly wind) promising, but infrastructure/intermittency limits penetration**

U.S. Forecasts Largest Coal Generation Capacity Installation in 40 Years



Source: U.S. Department of Energy NETL & Annual Energy Outlook 2005.

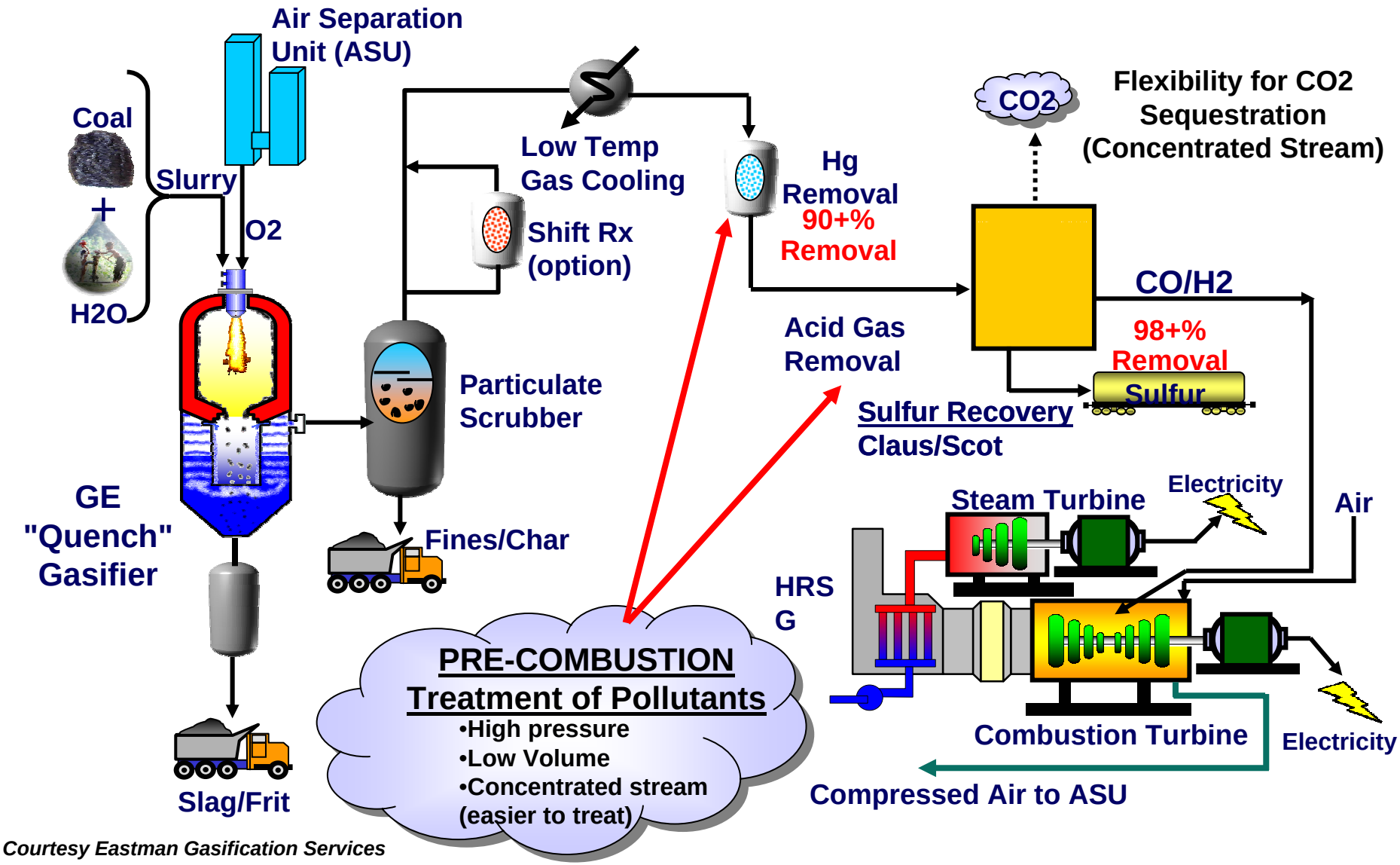
The Path Toward Near-Zero Emissions from Coal-Fueled Generating Plants



* Estimate

Source: EPA's Clean Air Markets database; EIA 2004 Annual Energy Outlook; GE Energy; SFA Pacific.

IGCC Overview

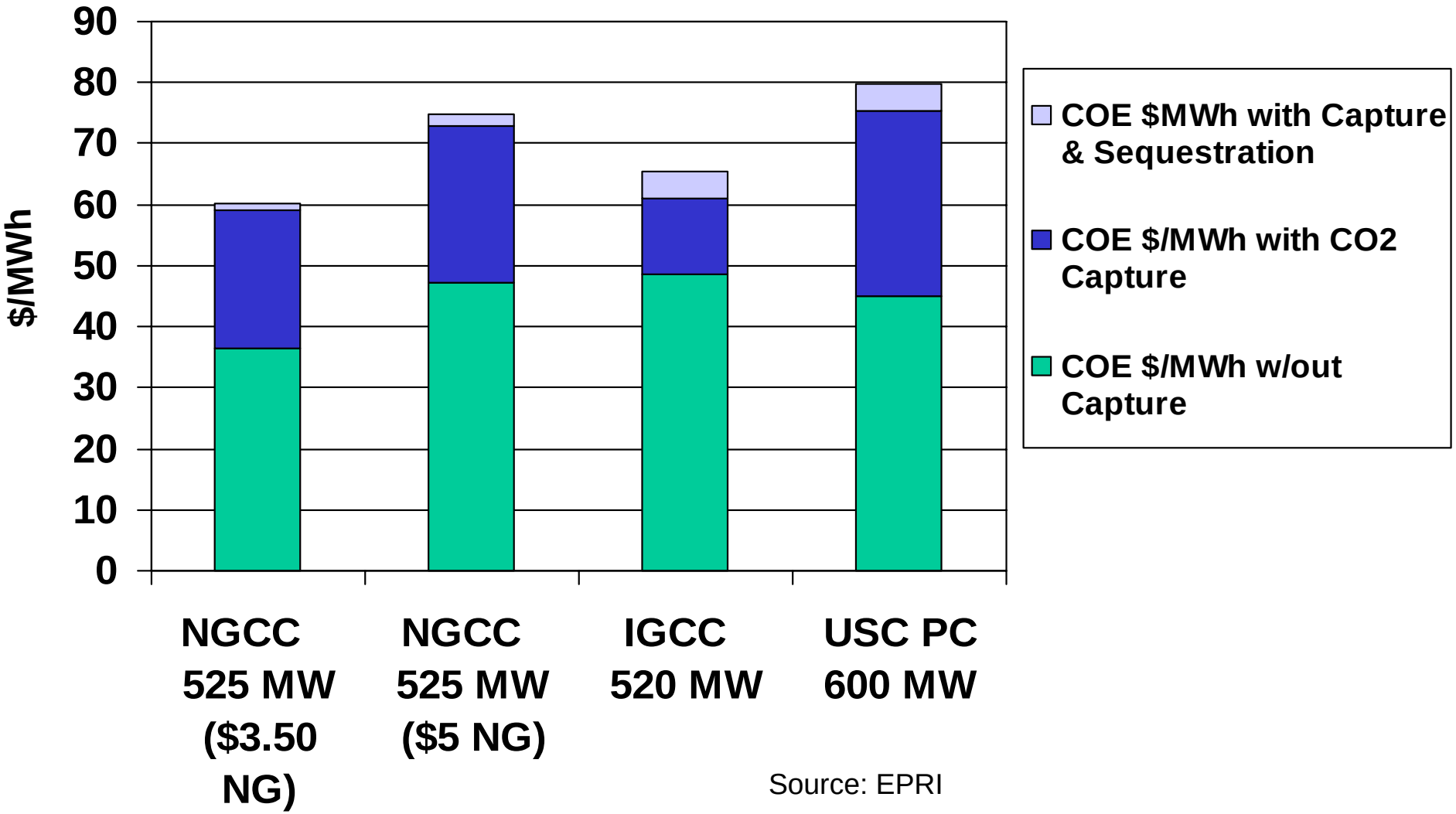


Courtesy Eastman Gasification Services

Integrated Gasification Combined Cycle's Promise

- Lowest capital cost (when mature) coal-based technology
- Feedstock & product flexibility (with added cost)
  - Coal, petcoke, or biomass feedstocks
  - Electricity, steam, syngas, liquid fuels, or chemical products
- Most efficient coal-based technology (when mature)
- Best emission characteristics among coal-based technologies
- Most carbon-friendly coal technology
- The technology of choice to KEEP COAL IN THE MIX
  - Strategically important to the energy security and economies of many states and the U.S.

Costs of Electricity from New Fossil Fuel Power Plants with & without CO_2 Capture



Source: EPRI

AEP's Strategy

- **Asset diversification and optimization**
  - Multi-fuels (coal, gas, renewables)
- **Coal has important long-run role**
  - Substantial air emissions compliance: **~$5 billion in retrofit controls thru 2020**
  - AEP Board Report (August 2004) **"*An Assessment of AEP's Actions to Mitigate the Economic Impacts of Emissions Policies*"** committed AEP to being an industry leader in development of IGCC technology

AEP's IGCC Investment

- **600 MW Plant built by 2010; Another 600 MW by 2013**
  - Front-End Engineering & Design and environmental permitting underway on both plants
  - Transmission studies requested of PJM
- **Sites being considered include:**
  - Meigs County, OH
  - Lewis County, KY
  - Mason County, WV (adjacent to Mountaineer Plant)
- **Regulatory cost recovery**
  - Filed cost recovery plan with PUCO in 2005; Awaiting approval
  - Filed Certificate of Convenience and Necessity in WV in 2006
  - May also file in Kentucky soon
- **R&D Activities**
  - Mountaineer Sequestration Project
  - FutureGen participation

Leadership

- **Choosing IGCC is not just a technology decision; it's a leadership decision**
  - **If not AEP, then who?**
  - **If not coal, then what?**
- **Being a leader has its perils and risks**
  - **Partnerships and cooperation are necessary for success**
- **Federal and State Governments have a critical role**
  - **Provide incentives and remove roadblocks**