

FIRSTENERGY

A MAJOR UTILITY SEEKS A SUBSIDIZED TURNAROUND



FirstEnergy's W. H. Sammis Plant, Stratton, OH



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Executive summary

FirstEnergy is one of the largest electric utility holding companies in the country. Its distribution utilities deliver electricity to approximately 6 million customers in Ohio, West Virginia, Maryland, Pennsylvania, New Jersey, and a very small area of New York. FirstEnergy owns both merchant power plants, which sell their output into regional wholesale electricity markets, and regulated power plants, which recover their operating costs directly from electricity customers. FirstEnergy's regulated power plants are all owned by its West Virginia subsidiary Monongahela Power.

The company's strategy has involved heavy reliance on coal generation. FirstEnergy increased its exposure to coal in 2011 with its merger with Allegheny Energy, a company 78% dependent on coal. With an aging coal fleet, low natural gas prices driving down power prices, weak electric demand growth, and increasing penetration of energy efficiency and renewable energy, this has not been a winning strategy. FirstEnergy's merchant power plants, which depend on being able to sell their output for more than their cost of operation, have been hit particularly hard. Indeed, a leading utility analyst has recently estimated that FirstEnergy Solutions, one of FirstEnergy's merchant generation companies, is worth less than \$0.

FirstEnergy's financial condition has deteriorated since it merged with Allegheny, and its key financial metrics are on a downward trajectory. Over the past three years, it has experienced declining revenues, declining net income, declining stock price, declining dividends, and rising debt. It has retired 4,769 MW of merchant coal plants and has booked impairments totaling \$1.1 billion against the value of its coal plants from 2011 to 2013. To shore up its balance sheet, FirstEnergy has relied heavily on "one-time resources," including proceeds from asset sales and short-term borrowings. FirstEnergy's poor financial performance stems from the underlying condition that the company's business – the sale of electricity – is performing poorly and not generating sufficient revenue to cover expenses.

FirstEnergy is burdened by heavy reliance on an underperforming merchant coal fleet in a weak competitive market and a regulated coal plant portfolio that is profitable but unable to carry legacy debt and likely additional environmental retrofit costs.

FirstEnergy's aggressive political and regulatory strategy is one way in which the company has sought to compensate for its declining financial performance, often at the expense of ratepayers and taxpayers. For example, in 2013, FirstEnergy successfully transferred the Harrison coal plant from a merchant subsidiary to a regulated subsidiary, ensuring that West Virginia electricity customers will pay for the plant's costs for the remainder of its useful life. In Ohio, FirstEnergy has been exposed for driving up prices for renewable energy credits charged to Ohio customers and for failing to bid energy efficiency resources into the regional capacity market, a move which cost consumers several hundred million dollars.

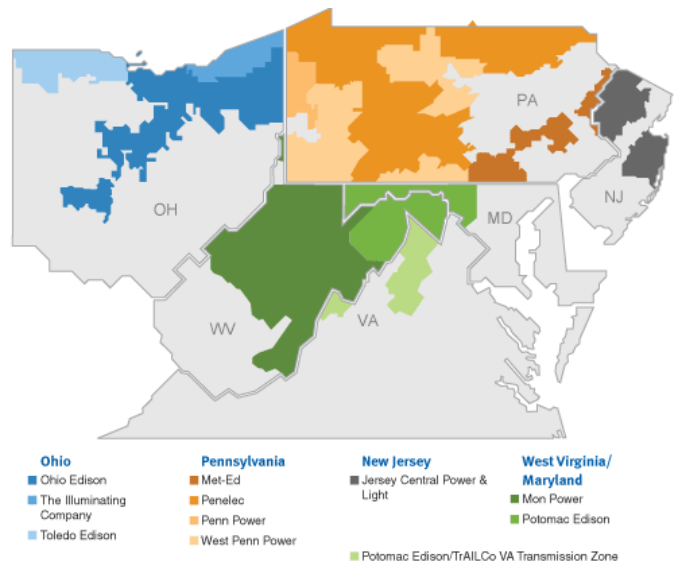
FirstEnergy's latest proposed regulatory bailout is its pending request to the Public Utilities Commission of Ohio asking ratepayers to subsidize the continued operation of its W. H. Sammis coal plant, its Davis-Besse nuclear plant, and its share of the OVEC coal plants. FirstEnergy is requesting that its Ohio distribution utilities be allowed to enter into a fifteen-year contract to purchase the output of these plants at a price that significantly exceeds wholesale electricity market prices. Ohio electricity customers will pay for the difference.

“FirstEnergy’s aggressive political and regulatory strategy is one way in which the company has sought to compensate for its declining financial performance, often at the expense of ratepayers and taxpayers.”

This move is simply the latest in a long series of moves to ensure the continued subsidization of FirstEnergy's coal fleet. Yet, despite its political and regulatory strategy, pursued at the expense of ratepayers and taxpayers, FirstEnergy has not succeeded in improving its core financial metrics or bringing rising debt levels under control. We do not anticipate any significant short-term or medium-term improvement in FirstEnergy's financial condition.

Section 1: Background

FirstEnergy (FE), headquartered in Akron, Ohio, is one of the nation's largest investor-owned utilities. FirstEnergy's distribution utilities serve 6 million customers, and FirstEnergy's retail energy supplier (FirstEnergy Solutions) serves 2.6 million customers.¹



Source: www.firstenergycorp.com

The company formed in 1997 through the merger of Ohio Edison and Centerior Energy (a combination of Toledo Edison and Cleveland Electric Illuminating Company). It then merged with GPU Inc. in 2001, expanding its operations further into Pennsylvania, New

Definitions:

A "regulated distribution utility" is a company in a deregulated state that owns distribution lines and delivers power directly to consumers. Its rates are regulated by the state public utilities commission.

A "transmission utility" is a company that owns transmission lines and charges other utilities for the use of its lines; these costs are ultimately passed through to consumers.

An "unregulated (or merchant) generation company" is a company in a deregulated state that operates power plants and sells the output of those plants into regional wholesale electricity markets. Such companies earn a profit to the extent that the price at which they are able to sell power exceeds their cost of generating that power.

A "vertically integrated utility" is a company in a regulated state that owns generation, transmission lines, and distribution lines. Its rates are regulated by a state public utilities commission.

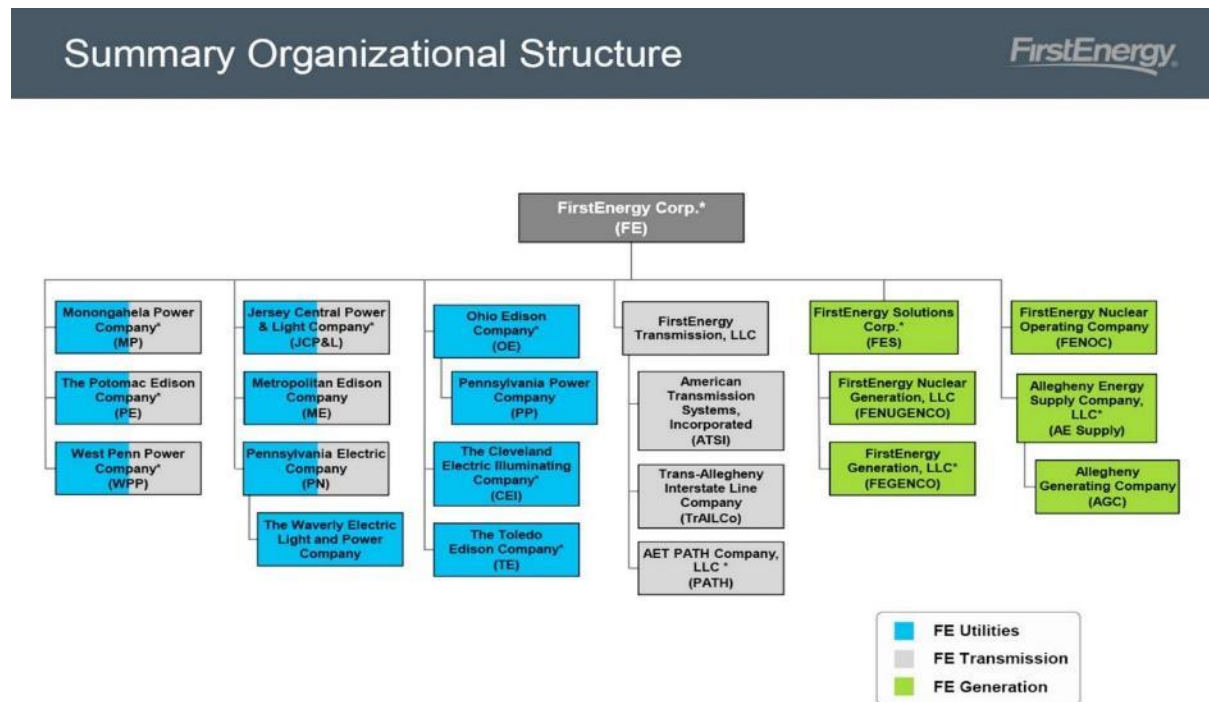
Jersey, and a tiny service territory in New York. FE's merger with Allegheny Energy in 2011 added holdings in West Virginia, Maryland, Pennsylvania and Virginia. Today FE owns several **regulated distribution utilities**: Ohio Edison (OH), The Cleveland Electric Illuminating Company (OH), Toledo Edison (OH), Metropolitan Edison (PA), Penelec (PA/NY), Penn Power (PA), West Penn Power (PA), Potomac Edison (WV/MD), and Jersey Central Power & Light (NJ). FE's **unregulated (merchant) generation** companies are FirstEnergy Solutions (FES) and Allegheny Energy Supply (AES). FE's **major transmission subsidiaries** are American Transmission Systems Inc. (ATSI) and Trans-Allegheny Interstate Co. (TrAIL). FirstEnergy's lone **vertically**

¹ FirstEnergy, *2013 Annual Report*, p. 7 (March 2014) and FirstEnergy, *2Q 2014 Earnings Call Transcript*, (August 5, 2014)

integrated utility, which owns generation, transmission and distribution systems, is West Virginia-regulated Monongahela Power (Mon Power).

FirstEnergy has two different ownership categories of electric generation assets: “regulated” plants, whose expenses are recovered from rates charged to electric utility customers and approved by state public service commissions; and “unregulated” or “competitive” plants, also known as merchant plants, that sell electricity directly into the wholesale electricity market and have no guarantee of recovering their costs through power sales. Only the plants owned by Mon Power are regulated.

Figure 1: FirstEnergy’s corporate structure²



*Entity has subsidiaries that are not shown

² A more detailed diagram can be found here: <http://www.psc.state.wv.us/scripts/WebDocket/ViewDocument.cfm?CaseActivityID=296602&NoType=%27WebDocket%27>

The FirstEnergy-Allegheny merger

FirstEnergy's merger with Allegheny in 2011 was a major milestone in the development of the company, increasing its number of distribution customers by more than a third³ and increasing its asset value by more than 30%. The merger of FirstEnergy with a company dependent on merchant coal (where electricity is sold competitively on the open market) signaled a strategic direction that continues to have major repercussions for the company's financial situation.

By merging with Allegheny, FE acquired regulated operations in West Virginia, regulated distribution operations in Pennsylvania and Maryland, and an unregulated generation company, Allegheny Energy Supply, which owned a generation fleet comprised of 78% coal fired plants.⁴ Allegheny also owned transmission, including the Trans-Allegheny Interstate Line Company and the Potomac-Appalachian Transmission Highline (a joint venture with AEP that was ultimately never constructed).

FirstEnergy CEO Anthony Alexander articulated his broad vision of the merger in his "Message to Shareholders" at the end of 2010:

The merger more than doubles our highly efficient, supercritical coal capacity, improves the overall environmental performance of our entire fleet and increases the generation output we have available to sell at market based prices by almost 40 percent.⁵

FE told regulators, investors and consumers that the Allegheny acquisition would result in significant synergies, half of which were expected to come from the unregulated generation segment. These synergies were to result from economies in fuel purchasing, fuel blending, operations and maintenance, and improved management of the Allegheny generation units to reduce their outage rates and improve their capacity factors. (The "capacity factor" reflects the fraction of time that a plant is running at full capacity; it compares the plant's actual generation during a year with the generation that the plant would produce if it operated at 100 percent power for all hours of the

³ FirstEnergy, *2010 Form 10K*, February 16, 2011, p. 50

⁴ Allegheny Energy, *2010 Form 10K*, February 23, 2011, p. 12

⁵ FirstEnergy, *2010 Annual Report*, Message to Shareholders.

<http://www.snl.com/Cache/10974959.PDF?Y=&O=PDF&D=&FID=10974959&T=&OSID=9&IID=>

year). FirstEnergy aimed to achieve top decile performance (in the top tenth of all plants) for capacity factors for their merchant supercritical units⁶ by 2014.⁷

Additionally, FirstEnergy expected synergies from integrating the FirstEnergy and Allegheny information technology systems, replacing contract workers with fewer FE staff.⁸

Financial metrics

Table 1 shows trends in some of FE's key financial metrics. The company posted revenues of \$14.9 billion in 2013. The company reported a total asset base of \$50.4 billion and posted capital expenditure (CAPEX) spending of \$2.3 billion in 2013.

Table 1. Key financial metrics (\$ in millions - except per share amounts)⁹

	2013	2012	2011	2010
Total revenues	\$14,917	\$15,273	\$16,105	\$13,306
Dividends per share	\$1.65	\$2.20	\$2.20	\$2.20
Total Assets	\$50,424	\$50,494	\$47,410	\$35,611
Total Equity	\$12,695	\$13,093	\$13,299	\$8,952
Long-term debt and other long-term obligations	\$15,831	\$15,179	\$15,716	\$12,579
Short-term borrowings and long-term debt payable in current year	\$4,819	\$3,968	\$1,621	\$2,186
Capital expenditures	\$2,300	\$3,289	\$2,493	\$1,800

⁶ Supercritical units operate at higher pressure and are more efficient than subcritical units.

⁷ FirstEnergy, *Q1 2011 Earnings Call Transcript*, May 4, 2011. (FE 1Q-11 Earnings)

⁸ Specifically, FirstEnergy argued that they would be able to set up a centralized maintenance facility and service their generation facilities with their own people, rather than with contractors. Synergies in integrating IT platforms would also lead to the elimination of contractors (FE Q1-11 Earnings)

⁹ Data for this chart is compiled from FirstEnergy, *2010 Form 10K*, February 16, 2011 (FE 2010 Form 10K); FirstEnergy, *2011 Form 10K*, February 28, 2012 (FE 2011 Form 10K); FirstEnergy, *2012 Form 10K*, February 25, 2013 (FE 2012 Form 10K); FirstEnergy, *2013 Form 10K*, February 27, 2014 (FE 2013 Form 10K).

Table 2 shows FE's 2013 financial metrics in comparison to other investor-owned utilities of similar asset size, and Table 3 shows its credit ratings compared to the same companies. In recent years the company has experienced some slippage among its peers. Company finances were stressed by the recession, but as the nation has experienced a modest economic recovery, FE has still struggled to improve revenues, credit ratings, and the quality of its assets, and to rebalance its debt load. Recently the company reduced its dividend projections going forward, a step that will reduce anticipated cash flow pressures.

Table 2. Selected financial metrics compared to other companies of similar asset size (\$ in millions - except per share amounts)

	FirstEnergy (FE) ¹⁰	American Electric Power (AEP) ¹¹	Dominion ¹²	PPL ¹³	DUKE ¹⁴	Edison International ¹⁵
Total revenues	\$14,917	\$15,357	\$13,120	\$11,860	\$24,598	\$12,581
Dividends per share	\$1.65	\$1.95	\$2.25	\$1.47	\$3.09	\$1.36
Total Assets	\$50,424	\$56,414	\$50,096	\$46,259	\$114,779	\$46,646
Total Equity	\$12,695	\$16,085	\$11,642	\$12,466	\$41,330	\$9,938
Long-term debt & other long-term obligations ¹⁶	\$15,831	\$17,231	\$19,330	\$20,592	\$38,152	\$10,028
Short-term borrowings & long-term debt payable in current year	\$4,819	\$2,441	\$3,446	\$1,016	\$2,943	\$810

¹⁰ FE 2013 Form 10K

¹¹ American Electric Power, 2013 Form 10K, February 25, 2014

¹² Dominion, 2013 Form 10K, February 28, 2014

¹³ PPL Corp., 2013 Form 10K, February 24, 2014

¹⁴ Duke Energy, 2013 Form 10K, February 28, 2014

¹⁵ Edison International, 2013 Form 10K, February 25, 2014

¹⁶ The presentation of "long-term debt and other long-term obligations" varied between the different utility Form 10Ks. For example, FirstEnergy's long-term debt includes capital lease obligations, unamortized debt premiums, and unamortized fair value adjustments (FE 2013 Form 10K at p. 173). In some cases these categories had to be added into the long-term debt reported by other utilities for comparison.

Table 3. FirstEnergy's credit ratings compared to other utilities of similar asset size

Current long-term credit ratings	FirstEnergy (FE) ¹⁷	American Electric Power (AEP) ¹⁸	Dominion ¹⁹	PPL ²⁰	DUKE ²¹	Edison International ²²
S&P	BBB-	BBB	A-	BBB	BBB+	BBB+
Moody's	Baa3	Baa1	Baa2	Baa3	A3	A3
Fitch	BB+	BBB	BBB+	BBB	BBB+	A-

Source: SNL Financial

Generation portfolio

FE owns approximately 17,848 MW of generation, including long-term power contracts (down from 22,810 MW at the time of the FirstEnergy/Allegheny merger in 2011).²³ This portfolio currently includes 58% coal; 23% nuclear; 8% hydroelectric; 9% oil and gas; and 3% wind and solar power purchase agreements.

Table 4: FE Coal and non-coal generation capacity: Merged capacity versus current

Generation Status	2011 Merged Capacity ²⁴	%	January 2014 ²⁵	%
Coal	14,866	65%	10,301	58%
Non-Coal	7,944	35%	7547	42%
Total	22,810	100%	17,848	100%

The following tables show the regulated and merchant coal assets owned by FirstEnergy and Allegheny at the time of the 2011 merger, and the current status of those assets.

¹⁷ FE 2013 Form 10K

¹⁸ American Electric Power, 2013 Form 10K, February 25, 2014

¹⁹ Dominion, 2013 Form 10K, February 28, 2014

²⁰ PPL Corp., 2013 Form 10K, February 24, 2014

²¹ Duke Energy, 2013 Form 10K, February 28, 2014

²² Edison International, 2013 Form 10K, February 25, 2014

²³ FE 2013 Form 10K, p.2

²⁴ FE, 2011 Form 10K, p. 41

²⁵ FirstEnergy, 2014, 1Q Factbook, (May 2014), Slide 19

Table 5: Coal-fired generation owned by Allegheny Energy at time of merger

Plant	MW	% regulated	% merchant	Type of Plant	Current Status
Harrison	1983	20.5%	79.5%	Supercritical	entirely regulated
Hatfield's Ferry	1710	-	100%	Supercritical	retired
Pleasants	1300	7.7%	92.3%	Supercritical	entirely merchant
Fort Martin	1107	100%	-	Supercritical	no change
Armstrong	356	-	100%	Subcritical	retired
Albright	292	100%	-	Subcritical	retired
Mitchell	288	-	100%	Subcritical	retired
Willow Island	243	100%	-	Subcritical	retired
Rivesville	126	100%	-	Subcritical	retired
R. Paul Smith	116	-	100%	Subcritical	retired
OVEC	78	14%	86%	Subcritical	no change

Table 6: Coal-fired generation (all merchant) owned by FirstEnergy at time of merger

Plant	MW	Type of Plant	Current status
W.H. Sammis	2220	Supercritical	no change
Bruce Mansfield	2490	Supercritical	no change
Eastlake	1233	Subcritical	396 MW scheduled to retire April 15, 2015, the rest retired
Ashtabula	244	Subcritical	RMR until 2015
Bay Shore	631	Subcritical	all but 136 MW retired
Lakeshore	245	Subcritical	scheduled to retire April 15, 2015
R.E. Burger	94	Subcritical	retired
OVEC	110	Subcritical	no change

*RMR means "reliability must run," showing that the plant is required to be available to the grid until this date

At the time of the merger, FirstEnergy's total generating capacity consisted of 54% coal-fired generation, which increased to 65% with the merger.²⁶

Almost all of the subcritical (less efficient) units have been retired, consistent with broader national trends in coal-fired electricity generation. But FE's supercritical units have also not performed well financially; as a result, one plant (Hatfield's Ferry) has been retired, another (Harrison) has been transferred to a regulated environment, and a third (Sammis) is the subject of a proposed regulatory bailout in Ohio (described in

²⁶ FE, 2010 Form 10K, p. 40

Section 3.D below). Since the merger, the company has reported 4,769MW²⁷ in retirements of merchant coal plants, in addition to transferring 1,576 MW of the Harrison plant from the merchant segment to regulated Mon Power. Today, FE's merchant generation fleet is about the same size as it was before the merger with Allegheny.

FE disposed of the majority of the merchant generating assets that it acquired from Allegheny, including the Hatfield's Ferry and Mitchell coal units (retired in 2013), the Armstrong and J. Paul Smith coal units (retired in 2012), the Harrison coal plant (shifted to regulated ownership in 2013) and several hydro units (sold in 2014).

FirstEnergy's current portfolio includes 3,780 MW of regulated generation.²⁸ FE's regulated generation is more than 85% coal, plus a small amount of pumped storage hydro and 31 MW of hydropower under long-term contract.²⁹ By contrast, FirstEnergy's merchant generation is made up of only 50% coal, reflecting the unprofitability of merchant coal.

The following table shows an estimate of FirstEnergy's owned generation (not including energy purchased through long-term contracts).

Table 7: Coal Exposure by actual generation (in millions of MWh)³⁰

Actual Generation (Millions of MWh)	2011	2012	2013
Coal	75.1	68.9	70.4
Non Coal	24.5	27.5	36.7
Total	99.6	96.4	107.1
% Coal	75%	71%	66%

Coal remains the dominant fuel burned by FirstEnergy, at 66%. In fact, coal's share of generation is significantly higher than its share of capacity, at 58%.

²⁷ FE, 2014 1Q Fact Book, Slide 95

²⁸ FE 2013 Form 10K, p. 2

²⁹ WV Public Service Commission, *Dissenting Opinion of Commissioner Ryan Palmer*, Case No. 12-1571-E-PC, October 7, 2013

³⁰ The generation figures are derived from SNL database, FirstEnergy Corporation/Corporate Profile/Plant Portfolio Summary/Plant Operations, 2011, 2012, 2013. Note that this data is missing about 500MW of peak natural gas plants, which run at low capacity factors and hence contribute little to the energy total.

Section 2: FirstEnergy's deteriorating financial condition

FirstEnergy's financial condition has deteriorated since it merged with Allegheny, and its key financial metrics are on a downward trajectory. Declining stock prices, declining revenues, declining net income, rising debt levels, reduced dividends and an overreliance on stop-gap, short-term financial measures all flow from the underlying condition that the company's business – the sale of electricity – is performing poorly. At the core of this weakness is the inability of FE's leadership to consistently bring recurring revenues into alignment with recurring expenses. While the industry as a whole is challenged by low power, natural gas prices, and the transition away from coal fired generation, most large investor owned utilities are navigating these challenges. In November 2013, Moody's placed 167 utilities in the US on a review for a positive upgrade, citing a favorable view of the industry as a whole, and followed recently with letter upgrades for most of the larger investor owned utilities. However, Moody's did not include FirstEnergy in its list of utilities eligible for upgrade. Despite Standard and Poor's industry-wide upgrade for the utility sector from BBB to BBB+³¹, FE remains one of six companies with a BBB- or below rating.³²

A. Declining stock price

When FE closed its merger with Allegheny Energy during the week of February 23, 2011, the closing stock price for the week was \$38.42 per share³³, down from FE's peak price of \$47.46 per share in December 2009. The stock peaked again in July 2012 at \$50.77 per share, and currently is in the low \$30.00's³⁴ per share-- in excess of a 30% drop from the peak.

FE's stock decline, particularly since July 2012, takes place against a backdrop of modest economic growth and rising stock values. The Dow Jones Industrial Average

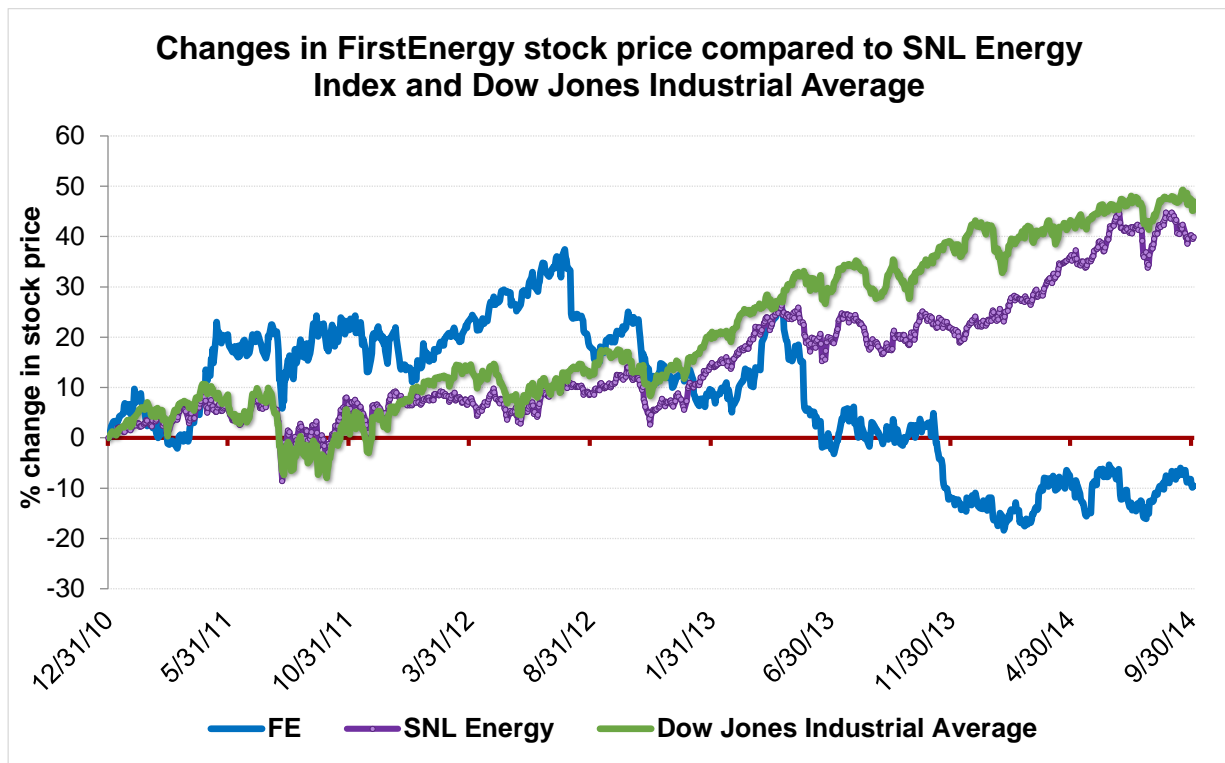
³¹ Edison Electric Institute, *Credit Ratings EEI Q2 2014 Financial Update*, (no date), p.1. (EEI CR Q2 2014)

³² Edison Electric Institute, *Credit Ratings EEI Q2 2014 - Backup Data* (<http://www.eei.org/resourcesandmedia/industrydataanalysis/industryfinancialanalysis/QtrlyFinancialUpdates/Pages/default.aspx>)

³³ Closing price on February 16, 2011

³⁴ FirstEnergy closed at \$33.49 on 10/3/2014

increased by 33% between July 2012 and July 2014. The SNL Energy Index during the same period increased by 35%.³⁵ Performance of power generation stocks in the first quarter of 2014 rose appreciably. Despite this, FE remained among the worst performers in the class. While industry leaders' stock performance increased from 25% to 60%, FE stock rose by 5.28%.³⁶



B. Declining revenues

FE has seen total annual revenues drop from \$16.1 billion in 2011 to \$14.9 billion in 2013. FE's 2011 to 2012 decline followed broad industry losses related to lower demand and low power prices. During 2013, FE's revenues declined slightly, while the industry

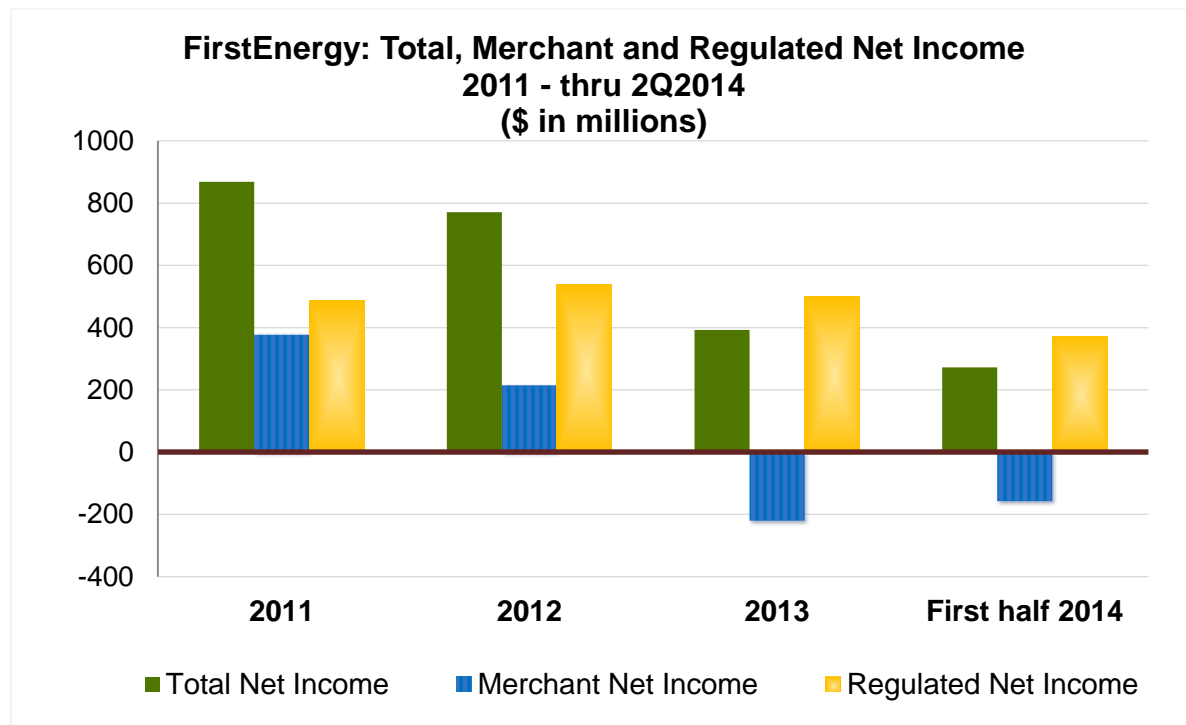
³⁵ Over a five year period FE stock price has declined by 13.7% while the Dow Jones Industrial Average and SNL Energy Index have increased by 99.7% and 88.03% respectively.

³⁶ Amy Poszywak, *Merchants headline power stock outperformance in H1 '14*, SNL Financial, February 16, 2014.

average rose by 3.8%.³⁷ FE's flat revenues are attributed by the company to unanticipated negative regulatory rulings and customer shopping.³⁸ Improvement in FE's revenue position would be contingent on favorable regulatory rulings³⁹ and rising natural gas prices.

C. Net income declines

FE has experienced an overall decline in net income from 2011 to 2013 from \$869 to \$392 million.⁴⁰ From 2012 to 2013, FE's net income declined by 50% -- from \$771 million to \$392 million. The erosion of this key financial metric raises concern, particularly in light of 2013 performance. Yet, during 2013, the net income of the industry as a whole rose by 41.1%.⁴¹



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³⁷ Edison Electric Institute, *2013 Financial Review*, p. 6 (http://www.eei.org/resourcesandmedia/industrydataanalysis/industryfinancialanalysis/finreview/Documents/Financial_Review_2013.pdf (EEI 2013 FinRev))

³⁸ FE 2013 Form 10K, p.62

³⁹ See: Moody's Investor Service, *FAQ: FirstEnergy Corp's Prospects for Remaining Investment Grade*, May 5, 2014, p. 1-4

⁴⁰ FE 2013 Form 10K, p. 58.

⁴¹ Edison Electric Institute, *2013 Financial Review*, p. 11

⁴² Note that "merchant net income" and "regulated net income" do not sum to "total net income" because there are other business segments, including transmission.

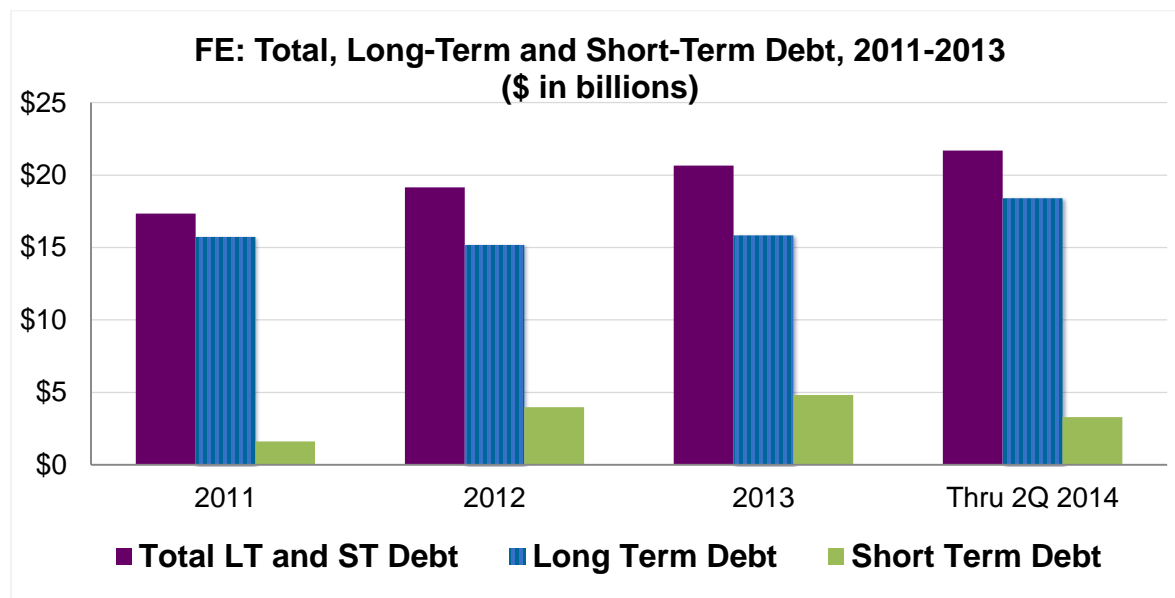
FE's overall decline in net income is driven by weak performance in the company's competitive, merchant fleet, which posted a loss in 2013 and is poised to lose money again in 2014. Although the merchant segment posted a positive net income in 2011, the gain was due in large measure to the sale of FirstEnergy's partial interest in its Signal Peak mine:

Net income increased by \$166 million in 2011 compared to 2010. The increase in net income was primarily due to a \$569 million gain (\$358 net of taxes) on the partial sale of FEV's interest in Signal Peak in 2011.⁴³

FE posted \$377 million in net income for its competitive (merchant fleet) segment in 2011.⁴⁴ If the gain from the sale of FE's partial interest in the mine sale is deducted from the net income of the company's merchant fleet, the competitive segment would have posted a gain of only \$19 million for the year.

D. Rising debt levels

Since the merger with Allegheny, FE's overall debt levels have increased. These debt levels are relatively high. The increases in both short and long-term debt have occurred even as FE has shed over 4,000 MW of merchant coal generation.



⁴³ FE 2011 Form 10K, p. 161

⁴⁴ FE 2013 Form 10K, p. 55

FE has doubled its short-term debt exposure from 2011 to 2013.⁴⁵ The company's long-term debt increased from \$15.7 billion in 2011 to \$18.4 billion through the first six months of 2014.

The high levels of debt and its internal composition (short and long-term), along with the company's outlook, have led Moody's, Citi and UBS to cite the company's debt levels as a red flag.

FirstEnergy has also been shifting debt from its subsidiaries to the parent and among its various subsidiaries. A major part of FirstEnergy's 2013 financial plan involved reducing debt at its competitive operations, FirstEnergy Solutions and Allegheny Energy Supply. This plan included the transfer of 1,576 MW of the Harrison power plant from Allegheny Energy Supply to regulated Mon Power at an inflated price. This transaction involved a transfer of \$1.1 billion in cash from Mon Power to Allegheny Energy Supply. The net result for FirstEnergy, the parent company, was an increase in long-term liabilities to finance the transfer of the plant.⁴⁶ Despite the reduction in debt at FirstEnergy's competitive operations in 2013, many analysts still find the parent company's debt to be cause for concern, because it is unsecured against assets.

E. Lost value from impairments

The existing coal-fired power plant fleet in the United States is experiencing a significant erosion of value, attributable to age, evolving environmental regulations and low natural gas prices. Warnings about the impending capital expenditure risks associated with retrofits to the remaining, aging coal fleet were sounded by many financial analysts,⁴⁷ beginning in 2009-2010.

⁴⁵ FE 2013 Form 10K, p. 80; FE 2011 Form 10K, p. 147

⁴⁶ FE 2013 Form 10k, p. 10 identifies a \$527 equity infusion from FE to Mon Power as part of the funding of the transfer. The remainder of the transaction was funded by notes issued by Mon Power (FE 2013 Form 10K, p. 53). Mon Power's notes were issued under the new regulated status of the plant.

⁴⁷ See H. Wynne et al., "Bernstein Commodities & Power: No Light for Dark Spreads: How the Ruinous Economics of Coal-Fired Power Plants Affect the Markets for Coal and Gas," *Bernstein Research*, 18 February 2011; M. Celebi, F. Graves, G. Bethla, and L. Brennan,

⁴⁷"Potential Coal Plant Retirements Under Emerging Environmental Regulations," *The Brattle Group*, 8 December 2010, available at:

At the same time as natural gas prices collapsed in 2009 and the permanence of lower power prices began to shape investment behavior, the country faced a recession, driving down the demand for electricity. Plans to retrofit the aging coal fleet were put on hold and more coal plant retirements were announced. During this period and continuing to the present, many merchant coal plant owners suffered significant financial setbacks: lower power prices, depressed valuations and distressed asset sales.

No major new coal-fired generation projects have been planned in the US after 2013.⁴⁸ One hundred eighty-three proposed new coal plants have been cancelled in the US,⁴⁹ and retirements have been announced or taken place for another more than 150 plants.⁵⁰

Fitch estimates that FES's coal portfolio declined in value by 62.8% from 2008 to 2013.⁵¹

⁴⁷<http://www.brattle.com/documents/uploadlibrary/upload898.pdf>; N. Mellquist et al., "Natural Gas and Renewables: A Secure Low Carbon Future Energy Plan for the United States," *Deutsche Bank Climate Change Advisors*, November 2010, available at: http://www.dbcca.com/dbcca/EN/_media/NaturalGasAndRenewables.pdf; H. Wynne, F. D. Broquin, and S. Singh, "U.S. Utilities Coal-Fired Generation Is Squeezed in the Vice of EPA Regulation: Who Wins and Who Loses?," *Bernstein Research*, October 2010, available at: <http://207.114.134.6/coal/oh/downloads/bernstein-report.pdf>; H. Wynne, F. D. Broquin, and S. Singh, "Black Days Ahead for Coal: EPA Air Emissions Regulation & the Outlook for Coal fired Generation," *Bernstein Research*, 22 September 2010; M.J. Bradley et al., "Ensuring A Clean, Modern Electric Generation Fleet while Maintaining Electric Reliability," *M.J. Bradley*

⁴⁷ & Associates, August 2010, available at:

<http://www.mjbradley.com/documents/MJBAandAnalysisGroupReliabilityReportAugust2010.pdf>; J. Fahey, "Why Small Coal-Fired Plants are Going Away," *Forbes*, 19 July 2010, available at: <http://www.forbes.com/forbes/2010/0719/outfront-obama-coal-energy-electricity-clearing-air.html>; H. Wynne, F. D. Broquin, and S. Singh, "U.S. Utilities: A Visit to Washington Finds Utility Lobbyists & Environmentalists Agreeing on the Grim Outlook for Coal," *Bernstein Research*, 9 March 2010; S. M. Kaplan, "Displacing Coal with Generation from Existing Natural Gas-Fired Power Plants," *Congressional Research Service*, 19 January 2010, available at: http://assets.opencrs.com/rpts/R41027_20100119.pdf. See also: North American Electric Reliability Corporation, "2010 Special Reliability Scenario Assessment: Resource Adequacy and Impact of Potential U.S. Environmental Regulations," *NERC*, October 2010, available at: http://www.nerc.com/files/EPA_Scenario_Final.pdf; Bank of America and Merrill Lynch, "Power and Gas Leaders Conference," New York, 29 September 2010; ICF International, "Clean Air Regulations: Impacts of EPA Proposed Rules," 16 September 2010.

⁴⁸ Edison Electric Institute, *2013 Financial Review*, p. 49

(http://www.eei.org/resourcesandmedia/industrydataanalysis/industryfinancialanalysis/finreview/Documents/Financial_Review_2013.pdf (EEI 2013 FinRev))

⁴⁹ Sierra Club, *Proposed Coal Plant Tracker*, no date. <http://content.sierraclub.org/coal/environmentallaw/plant-tracker>

⁵⁰ Sierra Club press release, *Coal on the Decline -- 150 Coal Plants Set for Retirement*, October 8, 2013.

<http://content.sierraclub.org/press-releases/2013/10/coal-decline-150-coal-plants-set-retirement>

⁵¹ Fitch Ratings, *The Erosion in Power Plant Valuations*, September 25, 2013.

FE disclosed coal related value losses in its portfolio even prior to the merger with Allegheny.

Table 8: Coal related impairments 2011-2013

Impairment Disclosure	Year	Amount (\$ in millions)
Transfer of Harrison to Mon Power	2013	\$322
Retirement of Hatfield's Ferry/Mitchell	2013	\$473
Retirement of 3 WV coal plants	2011	\$ 87
Retirement of 6 coal plants	2011	\$243
Total		\$1125

In 2010, FE took a \$375 million impairment⁵² to retire or restrict operations at five coal plants. (An impairment refers to a write off in the value of an asset in order to bring the value of the asset on the company's books in line with the assets estimated fair market value). The company took an additional \$1.1 billion in four separate coal related impairment disclosures, covering a dozen plants, from 2011 through 2013.

What was extraordinary about FE's strategic direction was the fact that it bought Allegheny, a company with a significant portfolio of merchant coal plants, in 2011. (Seventy percent of Allegheny's coal capacity was merchant, and only 30% was regulated).⁵³ At the time, FE characterized greater exposure to the competitive market as a benefit of the merger. But in fact, FE bought a fleet of plants with declining valuations, poor revenue producing capabilities and a weak regulatory outlook.

FE's management recognized the challenge early and began to divest itself of the older Allegheny coal fleet and its own legacy coal plants.

The retirement of the plants and revaluation of existing assets were designed to create a more efficient generation portfolio. But after the short-term negative impact on the company's balance sheet from the impairments, the strategic benefits to FE from the merger have not materialized. Actual performance shows a continued heavy reliance on an underperforming merchant coal fleet in a weak competitive market, and a regulated coal plant portfolio that is profitable but unable to carry legacy debt.

⁵²FE 2010 10k at pp.254-55

⁵³ Allegheny Energy 2010 Form 10K, p. 13

F. Declining dividends

The cumulative impacts of FE's weak financial position have caused a change in corporate behavior. In January 2014, the board of FE announced a 35% reduction in its dividend payment. According to the Edison Electric Institute, FE's dividend reduction is a relatively rare event in the industry. From 2010 through 2013 only one company, Exelon, reduced its dividend.⁵⁴

G. Relying on “one-time resources” to mask imbalance in revenues and expenses

1. Background: One-time resources

The typical utility sustains its business through internally generated cash flows from electricity sales. When a well-managed company is presented with an opportunity to sell an asset, it will use the funds to reduce debt or invest in additional revenue-producing activity. Companies can prudently use “one-time resources,” such as short-term borrowing or skipping payments for debt service or retirement payments, to provide balance sheet relief in a given year. Short-term borrowing can also be deployed in a similar fashion to return a company to financial solvency. All of these financial tools can be abused, however, if they are carried forward year over year at extraordinary levels.

Since 2011, FE has relied upon a series of one-time resources each year to provide cash infusions to correct the apparent structural imbalance in the company's recurring revenues and recurring expenses. The practice of using large one-time resources in multiple years, along with the size of these resources, strongly suggests that FE's business model is financially unsustainable. The company's recent decision to reduce the stock dividend (See Section F) in order to relieve pressure on cash flow is evidence of underlying financial deterioration.

The company's forward-looking financial plans through 2016 show persistent high levels of short-term borrowing, an indication that it will continue to rely upon one-time

⁵⁴ Edison Electric Institute, *Dividends: Q4 2013 Financial Update*
http://www.eei.org/resourcesandmedia/industrydataanalysis/industryfinancialanalysis/QtrlyFinancialUpdates/Documents/QFU_Dividends/2013_Q4_Dividends.pdf, p. 2

resources to sustain its operations. The company's underlying business – the sale of electricity– is not generating sufficient revenue to cover expenses.

2. How has FE used one-time resources?

FirstEnergy used one-time resources on at least five separate occasions since 2011. The resources total approximately \$5.8 billion from asset sales, reduced payments and short-term borrowing. These financial management actions allow the company to declare positive net income in each year and to provide competitive dividend payments to investors. In the aggregate, these non-recurring resources exceed the amount of the company's dividend payments for the last three and a half years (See Table 10). FE has effectively borrowed from its future to pay annual dividends to shareholders.

Table 9: FE One Time Resources 2011-2013 (\$ in billions)

One Time Resource	2011	2012	2013
Sale of Signal Peak Mine and 3 natural gas plants	0.84		
Reduce cash for debt retirement		1.2	
Short term cash borrowings		2.0	1.4
Total	0.84	3.2	1.4

3. 2011 one-time resources

In 2011, FirstEnergy recorded cash proceeds from asset sales of \$840 million. These asset sales include the sale of a one-third interest in the Signal Peak coal mine in Montana, the sale of the near-complete Fremont natural gas plant, and the sale of its Richland and Stryker natural gas peaking plants.

In 2011 FE made dividend payments to shareholders of \$881 million. The combined impact of FE's various gains on asset sales was sufficient to cover almost all of FE's entire dividend payment for the year.

4. 2012 and 2013 one-time resources

In 2012 and 2013 FE took advantage of two short-term resources – a reduction in debt redemptions and an increase in short-term borrowing – to address imbalances in underlying revenues and expenses.

Reduced Contribution for Debt Retirements

Although FirstEnergy's aggregate short and long-term debt burdens have been increasing, the company regularly retires, reduces or refinances some of its debt. In the three years from 2011-2013, FE spent \$6.4 billion⁵⁵ to redeem or reduce its debt load, an average annual debt reduction payment of \$2.1 billion over the three year period. FE paid \$940 million in debt redemptions in 2012, and \$3.6 billion in 2013. Debt maturation dates may cause annual fluctuations for any company as a matter of prudent debt practices. A company faced with the debt burden as large as that of FE, however, needs a regular, robust debt retirement strategy. Debt refinancings and shifting debt from subsidiaries to the parent corporation are not debt reduction.

2012 and 2013 short-term borrowing

Short-term debt, generally defined as debt that is repaid within one year, is typically used to manage immediate cash needs of the business (emergency, accounts receivable, working capital). FE has short-term borrowing capacity of \$6.0 billion under various credit agreements, which the company has now extended through 2018. In 2012, the first full year after the merger, FE borrowed \$2 billion on a "short-term basis," and it borrowed an additional \$1.4 billion on a short-term basis in 2013.⁵⁶

FE's short-term borrowing is twice the level of the company's accounts receivable at the end of 2013. In other words, the company did not generate sufficient cash from operations to pay off its short-term debt in 2013. Analysts at Citi bank project that FE will have "short-term" borrowing balances of \$4.8 billion carried through 2016.⁵⁷ UBS

⁵⁵ FE 2013 Form 10K, p. 123

⁵⁶ According to FirstEnergy, Form 10 Q – Second Quarter of 2014, August 5, 2014 (FE 2Q-14 Form 10Q) FE has reduced its short-term borrowing by \$1.1 billion. Its long-term indebtedness has increased by \$2.6 billion during the same period. See discussion of Long and short-term debt above.

⁵⁷ Citi, *FirstEnergy Corporate: FE, Left in the Cold during Polar Vortex, Reacting to Situation, Lowering Guidance and Reassessing Options*, May 6, 2014. P. 2

has also noted relative to its short-term borrowing levels, business profile and corporate size, FE has significant exposure to increasing interest rates due to these short-term borrowing practices.⁵⁸

In 2012 and 2013, FE paid \$920 million in dividend, an increase over the 2011 levels. In each of those years, the balance sheet relief derived from pushing off debt redemption payments and cash from short-term borrowing individually and collectively exceeded the size of the dividend payments.

5. 2014 one-time resources

In the first half of 2014, FE sold off seven merchant hydropower plants. The sale closed for \$394 million.⁵⁹ This is greater than the \$302 million paid in dividend payments for the first half of the year.⁶⁰

Table 10: 2011-2013 one-time resources and dividend payments
Over Use of one-time resources masks financial imbalance (\$ in billions)

	2011	2012	2013	3 year average
Revenue	16.1	15.3	14.9	15.4
Expenses	14.4	13.1	13.3	13.6
Operating income	1.7	2.2	1.6	1.8
Net income	0.9	0.8	0.4	0.7
One time resources (OTR)	0.8	3.2	1.4	1.8
Net income w/o OTR	.06	-2.4	-1.0	-0.9
Annual dividend payment	0.9	0.9	0.9	0.9

Conclusion: Financial condition

For the past three years FE's underlying recurring revenues have been insufficient to cover its recurring expenses. Without the use of one-time resources the company would have had either to reduce dividends or find other avenues to pay shareholders.⁶¹ These

⁵⁸ UBS Investment Research, *US Electric Utilities & IPPs: In search of parent leverage*, June 16, 2014, p. 4.

⁵⁹ FE 2Q-14 Form 10Q, p. 64.

⁶⁰ FE 2Q-14 Form 10Q, p. 4.

⁶¹ This analysis did not include the amount of benefit achieved on the corporate balance sheets when the company skips pension contributions. In the last seven years it has skipped annual payments in three cases. FE's average annual payment for the four contributions was \$443 million. If smoothed out over the seven years the average

stopgap measures have not been carried out in tandem with a longer term turnaround strategy that would bring recurring revenues in line with recurring expenses. FE is expected to carry substantial short and long-term borrowing balances forward in each of the next three years (if not longer).

Section 3: As FirstEnergy has struggled financially, it has resorted to political, regulatory and financial schemes to shore up its balance sheet

FE's significant financial losses from coal-fired generation, documented in the previous section, are likely to continue, yet FE remains committed to a portfolio that is highly dependent on coal. To achieve a turnaround in the face of a market that is hostile to coal, FE has turned to the political realm, using corporate leadership and lobbying, regulatory gimmicks and loopholes in federal programs to try to prop up the company's sagging market performance. So far the strategy has not improved share value. And, as a corporate citizen, FE has taken positions with regard to renewable energy and energy efficiency that run counter both to sound public policy and the practice of larger, more profitable companies. First Energy CEO Anthony Alexander laid out his views of the future of the industry and the role of government in an April 2014 speech before the U.S. Chamber of Commerce,⁶² stating: "the electric utility industry continues to experience weak demand for electricity and soft market prices for power," charging that government interference in the market is "stifling the growth and use of electricity."

Mr. Alexander summarized his view of current trends in utility and regulatory finance: "In the electricity utility industry, energy efficiency, renewable power, distributed

payment would be less than \$250 million annually. These intermittent payments are likely to be higher than if payments were made on an annual basis. The practice of skipping whole years does provide a short-term cash flow benefit in those years where no payments are made. Large, intermittent payments are likely to be more expensive and disruptive to the company over time. FE skipped its 2013 pension payment (FE 2013 Form 10K, p. 107) and no payment is scheduled for 2014 (FE-2014 1Q Factbook, p. 153).

⁶² Full speech is available at https://www.firstenergycorp.com/content/fecorp/newsroom/featured_stories/AJA-Chamber-Speech.html

generation, micro grids, roof-top solar and demand reduction are examples of what 'sounds good' – and while they may all play some role in meeting the energy needs of customers, they are not substitutes for what has worked to sustain a reliable, affordable and environmentally responsible electric system."

He went on to fault policies designed to curb energy use for undermining investments made in coal and nuclear generation, saying such policies were really part of a "war on coal": a social agenda with perilous implications for the economy. He went on to laud the growth in natural gas reserves but indicated that natural gas capacity failed during the recent polar vortex.

His overall conclusion was a call for diversification and an elimination of undue restrictions on the market. In practice, though, FE's political strategy is to promote government subsidization of its obsolete coal-fired generation, while opposing alternatives and exploiting competitive markets to its own financial benefit. FE generates 66% of its electricity from coal power plants. This is not diversification. In fact, FirstEnergy has chosen to sell electric generation assets that would have helped them diversify their fleet: a natural gas plant in Ohio and hydroelectric plants in PA, WV, and VA.

FirstEnergy's political strategy – calling for continued reliance on coal-fired and nuclear power generation and opposition to competing sources of power – is based on a mischaracterization of the fundamental challenge facing the utility industry. America's electricity system -- its power plants, grid and companies-- are in a period of change due to the age of the power fleet. Seventy-three percent of the coal fleet, for example is over 30 years old.⁶³ The nuclear fleet in the United States is on average 33 years old.⁶⁴

The markets in the United States are in a transition and have rejected the idea that a whole new fleet of coal plants should be built to address the problem of the age of the nation's electricity fleet, as 183 new coal plant proposals have been rejected due to financial, environmental and popular opposition. The existing fleet of coal plants is also

⁶³ Energy Information Administration, *Age of electric power generators varies widely*, June 16, 2011. <http://www.eia.gov/todayinenergy/detail.cfm?id=1830>

⁶⁴ Energy Information Administration, *Frequently Asked Questions*, November 7, 2013. <http://www.eia.gov/tools/faqs/faq.cfm?id=228&t=21>

not producing the revenue needed as an incentive to large scale retrofits or new construction of coal plants.

The United States electricity system requires new investment. This investment is taking place against a backdrop of scientific, technological, financial, economic and political change. What worked in the past is not likely to work in the future.

A chorus of CEO's from other major utilities have cited the need for utilities to move forward with creating new models for their operations -- incorporating demand response, energy efficiency, renewable energy, and "distributed" generation as key parts of their businesses.

For example, the CEOs of American Electric Power (AEP), Edison International, and Southern California Edison all told a panel at the *Wall Street Journal's* April 2014 ECO:nomics conference that they see the advent of "distributed solar" – where customers generate electricity with solar panels on their homes—as an opportunity for their companies to evolve and offer new services.

NRG announced in August 2014⁶⁵ that they are reorganizing their business model in recognition of fundamental changes in the industry, and in October NRG purchased Canadian rooftop solar company Pure Energies. James Rogers, former CEO of Duke Energy Predicted in 2013 that the future for electricity markets would see a fundamental disconnect between GDP growth and electricity growth.⁶⁶

Instead, FE's policy and practice is designed to retain a relative monopoly for coal fired generation.⁶⁷ This is shown through: 1) the use of government regulation to transfer of the Harrison power plant to West Virginia's regulated system; 2) FE's proposed ratepayer bailout for the Sammis, Davis-Besse and OVEC units in Ohio; 3) FE's misuse of Ohio's renewable energy market; 4) FE's opposition to government policies that support

⁶⁵ Amy Poszywak, *UPDATE: NRG lays out strategy to create value from power industry evolution*, SNL Financial, August 7, 2014

⁶⁶ Abby Gruen, *Duke's Rogers calls for utility regulatory, business model 'rethink'*, SNL Financial, January 30, 2013

⁶⁷ While there has been much discussion and support from the coal industry for an all of the above, diverse use of fuel sources for the nation's grid in many parts of the country diversification would actually reduce the use of coal. FirstEnergy and the mid-Atlantic and Midwest region is a case in point.

energy efficiency in Ohio and other states; 5) FirstEnergy's opposition to the participation of energy efficiency and demand response resources in PJM's capacity market; and 6) FE's reliance on federal subsidies to profit from its investment in the Signal Peak mine. FirstEnergy's underlying goals are to boost the financial performance of its struggling merchant subsidiary, FirstEnergy Solutions, while also enhancing its strategy of pursuing regulated growth.

This overall strategy has not succeeded. Mr. Alexander told the *Wall Street Journal* in July 2014 that this has been a "lost decade."⁶⁸

A. Harrison plant transfer

In October 2013, FirstEnergy received approval from the West Virginia Public Service Commission to complete the sale of 1,576 MW of the Harrison power plant from deregulated Allegheny Energy Supply to regulated Mon Power. The Public Service Commission approved the transfer at a price \$257 million higher than the historic book value of the plant.⁶⁹

The Harrison plant sells its output into the energy and capacity markets operated by the regional electricity grid operator, PJM Interconnection LLC. The transaction had been presented to the West Virginia Public Service Commission as a benefit to the West Virginia coal industry and as a way to reduce Mon Power's exposure to the volatility of PJM energy and capacity market purchases. In reality, the transaction locks Mon Power customers into owning far more energy than they need⁷⁰ and exposes them to the risk that the cost of owning and operating the Harrison power plant will not be covered by the sales of this excess electricity into PJM. FE's own numbers showed that the Harrison plant would lose ratepayers money, relative to market purchases, through 2029.⁷¹

⁶⁸ Rebecca Smith, *Electric utilities get no jolt from gadgets, improving economy*, Wall Street Journal, July 28, 2014.

⁶⁹ FE had originally requested a \$589 million mark-up in the value of Harrison, based on the "market value" of the plant, as calculated in an appraisal commissioned by FE. This mark-up was reduced to \$257 million in a settlement.

⁷⁰ Assuming the Company's load forecast is correct, Mon Power customers will have excess energy through 2026. The asset transfer resulted in a transfer of approximately 8400 GWh of additional energy generation to Mon Power. In 2013, Mon Power's existing power plants generated 11,344 GWh. Mon Power forecasted an energy demand of 18,679 GWh in 2026. Hence, with the asset transfer, Mon Power customers will have excess energy well beyond 2026.

⁷¹ Public Service Commission of West Virginia, *Supplemental Testimony of Catherine Kunkel on behalf of the West Virginia Citizen Action Group*, Case No. 12-1571-E-PC, September 10, 2013

With the approval of the West Virginia Public Service Commission, FirstEnergy was able to transfer the Harrison plant from the risky merchant environment to the protected regulatory environment, where WV ratepayers will pay for the ownership and operation of the plant over the remainder of its useful life. In addition, FE was able to increase the value of the plant by \$257 million; West Virginia ratepayers will also pay for this added cost, plus a rate of return.

Despite Anthony Alexander's statements favoring the free market and opposing government intervention, the Harrison plant transfer shows the company's willingness to seek out and use government regulatory processes to create a guaranteed revenue stream for a financially struggling coal plant.

B. Proposed bailout of Sammis, Davis-Besse and OVEC plants

FE is now seeking a very similar ratepayer bailout in Ohio to protect its Sammis, Davis-Besse and OVEC plants.

In its Ohio rate case, FE is seeking approval for a power purchase agreement, under which its Ohio distribution utilities will purchase the output of the Sammis coal plant (2,200 MW), Davis-Besse nuclear plant (908 MW), and FES's share of the OVEC coal plants (53 MW) at a set price.

If approved, this would shift the risk of operating these merchant plants onto Ohio ratepayers,

who would be forced to pay for the cost of the plants, regardless of whether it would be less expensive to purchase from the wholesale market. FE estimates that the proposal would cost the average residential customer an additional \$42 in its first year.⁷² In total, FE estimates that the plants would cost Ohio ratepayers \$404 million (net present value) from 2016-2018.⁷³ This rate increase represents about 5% of the Ohio



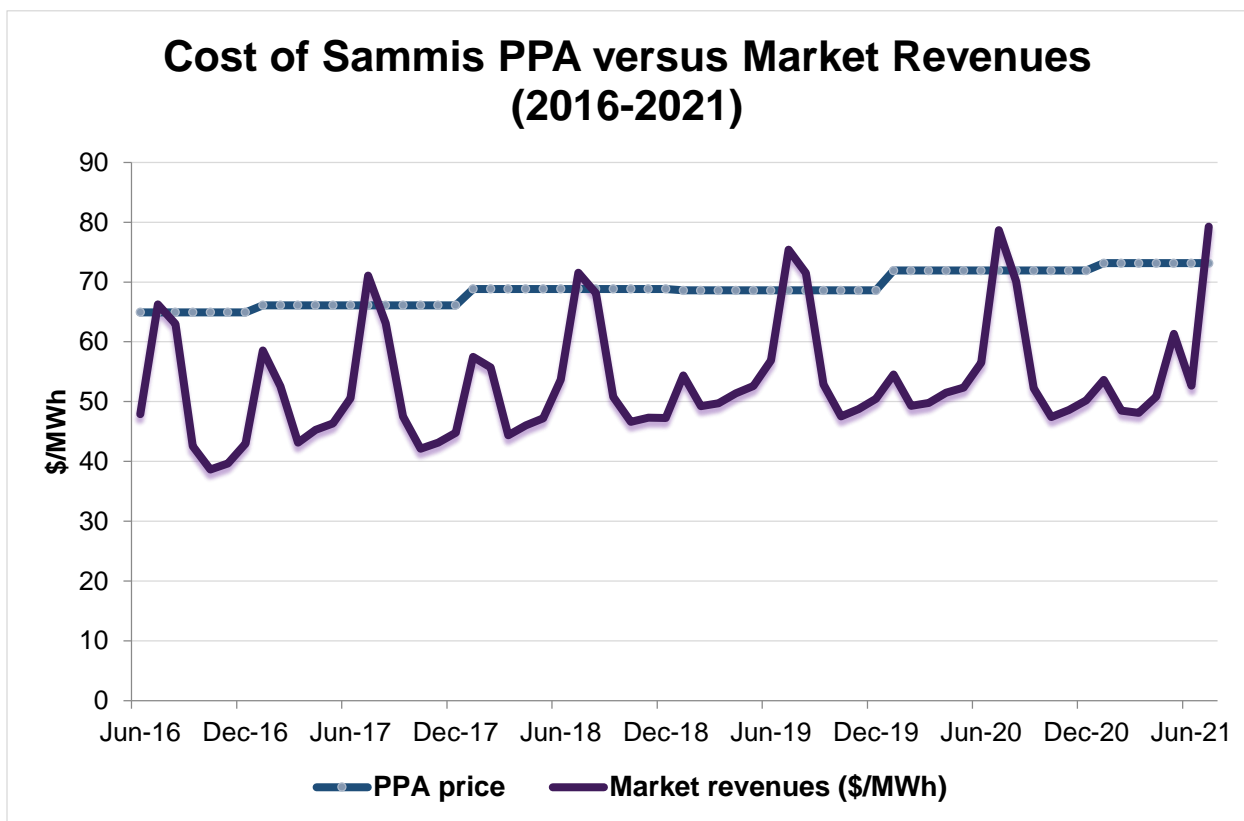
First Energy's Sammis plant

⁷² FE Q2 2014 Earnings call, August 5, 2014.

⁷³ Public Utilities Commission of Ohio, *Direct Testimony of Jay A. Ruberto on behalf of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company, Attachment JAR-1, Case No. 14-1297-EL-SSO*, August 4, 2014.

subsidiaries' projected operating revenues from 2016-2018.⁷⁴ FE estimates that the plants will not start producing a net benefit to ratepayers until 2022.⁷⁵ By our analysis, the plants won't produce a positive benefit to ratepayers for even longer and will cost ratepayers significantly more.

The following graph shows the estimated price that the Sammis coal plant would receive under the proposed power purchase agreement, compared to the estimated price that the plant would otherwise receive from selling its output into the PJM energy and capacity markets, as it does currently. Ohio ratepayers will pay for the difference.



⁷⁴ Public Utilities Commission of Ohio, Application of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company for Authority to Provide for a Standard Service Offer Pursuant to R.C. 4928.143 in the Form of an Electric Security Plan: Attachment 6, Case No. 14-1297-EL-SSO, August 4, 2014.

⁷⁵ Public Utilities Commission of Ohio, *Direct Testimony of Jay A. Ruberto on behalf of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company, Attachment JAR-1*, Case No. 14-1297-EL-SSO, August 4, 2014.

FE argues that its plan will protect ratepayers from the volatility of market prices because ratepayers will be locked into a stable (and high) contract for power from the plants. This is the same argument that FE made in 2013 before the WV Public Service Commission in support of the transfer of the Harrison power plant at an inflated price to Mon Power, and the same argument it made to justify additional rate charges for its Ohio nuclear plants.



The hole in the Davis-Besse reactor head, 2002

This is also not the first time that FE has appealed to Ohio state officials for a bailout. In 1999, when Ohio deregulated electricity, FE succeeded in convincing the legislature to add surcharges to the bills of customers in its former service territory to pay for the costs of its nuclear plants. This “transition charge” cost ratepayers \$6.9 billion, and blunted the reduction in bills that should have occurred when competitors entered the market. According to the Ohio Consumers Counsel, the state's ratepayer advocate, 1.9 million consumers paid these surcharges.⁷⁶

C. Misuse of Ohio's renewable energy market

Under Ohio's renewable energy standard, FE's distribution utilities are required to source a certain percentage of their electricity from renewable energy sources.

A financial audit of FE's renewable energy procurement program in 2012 found that FE's distribution companies had purchased renewable energy credits from FirstEnergy Solutions at prices that, at times, exceeded renewable energy credit prices anywhere else in the country.⁷⁷ These prices were passed through to customers.

⁷⁶ John Funk, *FirstEnergy proposes new rate plan to have consumers guarantee sales for two Ohio power plants*, Cleveland Plain Dealer, August 4, 2014.

http://www.cleveland.com/business/index.ssf/2014/08/firstenergy_proposes_new_rate.html

⁷⁷ Exeter Associates, *Management/Performance Audit of the Alternative Energy Resource Rider of the FirstEnergy Ohio utility companies for October 2009 through December 31, 2011*, Case No. 11-5201-EL-RDR, (<http://dis.puc.state.oh.us/TiffToPdf/A1001001A12H15B64215C68703.pdf>)

The Public Utilities Commission of Ohio ultimately fined FE \$43.4 million for this insider dealing and required the company to credit this money back to ratepayers. The PUCO stated that FE's purchase price had been based on negotiations, not a competitive bid, and there was no evidence to support the price.⁷⁸ FE appealed this order to the Ohio Supreme Court. This case has not yet been decided.

D. Political opposition to energy efficiency

FE's corporate policy includes opposition to investments in energy efficiency. FE sees energy efficiency as direct competition to its core business of selling electricity. As a result, FirstEnergy has vigorously opposed energy efficiency in West Virginia, where it successfully argued before the WV Public Service Commission that it should be required to achieve an energy efficiency target of 0.5% of sales in 5 years, one of the weakest energy efficiency targets in the nation.⁷⁹ In Pennsylvania, FE subsidiary West Penn Power was recently fined \$1.3 million for its failure to meet its statutorily mandated energy efficiency target for 2011.⁸⁰



In Ohio, FE was the key player in a successful legislative campaign in 2014 to roll back a 2008 law that established basic standards for the use of energy efficiency and renewable energy by Ohio's utilities.

The Ohio energy efficiency standards were considered to be fairly strong and comparable to those in many other states. The renewable standards were not as aggressive as those of many other states.⁸¹

⁷⁸ Public Utilities Commission of Ohio, *Opinion and Order*, Case No. 11-5201-EL-RDR, August 7, 2013 (<http://dis.puc.state.oh.us/TiffToPdf/A1001001A13H07B41149F98309.pdf>)

⁷⁹ West Virginia Public Service Commission, Case No. 11-0452-E-P-T

⁸⁰ Waqas Azeem, *Pa. PUC penalizes West Penn for not achieving energy savings reduction targets*, SNL Financial, August 21, 2014

⁸¹ In 2011, 19 states achieved energy efficiency savings of 0.7% of sales or greater – the target that Ohio set for that year, (American Council for an Energy Efficient Economy, *The 2013 State Energy Efficiency Scorecard*, November 2013). Also, 29 states have renewable portfolio standards that are more aggressive than Ohio's. (<http://www.ncsl.org/research/energy/renewable-portfolio-standards.aspx>)

FE lagged behind other Ohio utilities in the early implementation of the 2008 law. The State's other two major investor-owned utilities, AEP and Duke, met their energy efficiency benchmarks handily in 2009, the first year of the program, but FE did not. By 2010 and 2011, FE had met the benchmarks.⁸² The company also dragged its feet on purchasing or constructing renewable energy facilities, so that it ended up having to fulfill the requirement by purchasing renewable energy credits.

Rather than deciding to comply with the energy efficiency and renewable portfolio standards of the law, FE decided to try to repeal them. By late 2012, FE had begun a push to stop the law in its tracks, freezing the energy efficiency and renewable energy standards portions of the law at 2012 levels.⁸³ FE's position was supported by the Ohio Chamber of Commerce and several large companies, including Timken and Alcoa, who objected to provisions that large electric users had to either implement a certain amount of electric efficiency or pay a surcharge. FE's proposal was opposed by the Ohio Manufacturers Association, several large companies including Honda and Anheuser-Busch, alternative energy suppliers, environmental organizations, and others. The state's other major investor-owned utilities, AEP and Duke, offered support for FE's position as long as they did not lose the investments they had made so far in energy efficiency. Indeed, both AEP and Duke have now said that they will continue their current energy efficiency and renewable energy plans, even after the passage of SB 310.

FE did not succeed in getting the "permanent freeze" measure passed at the end of the 2012-2013 legislative session. Part of their failure was due to timing – some members of the legislature, the press, and parties interested in the bill protested that the lame duck session did not allow for adequate public hearings or debate. It also became clear that Ohio Governor John Kasich would not endorse a complete freeze of the standards.

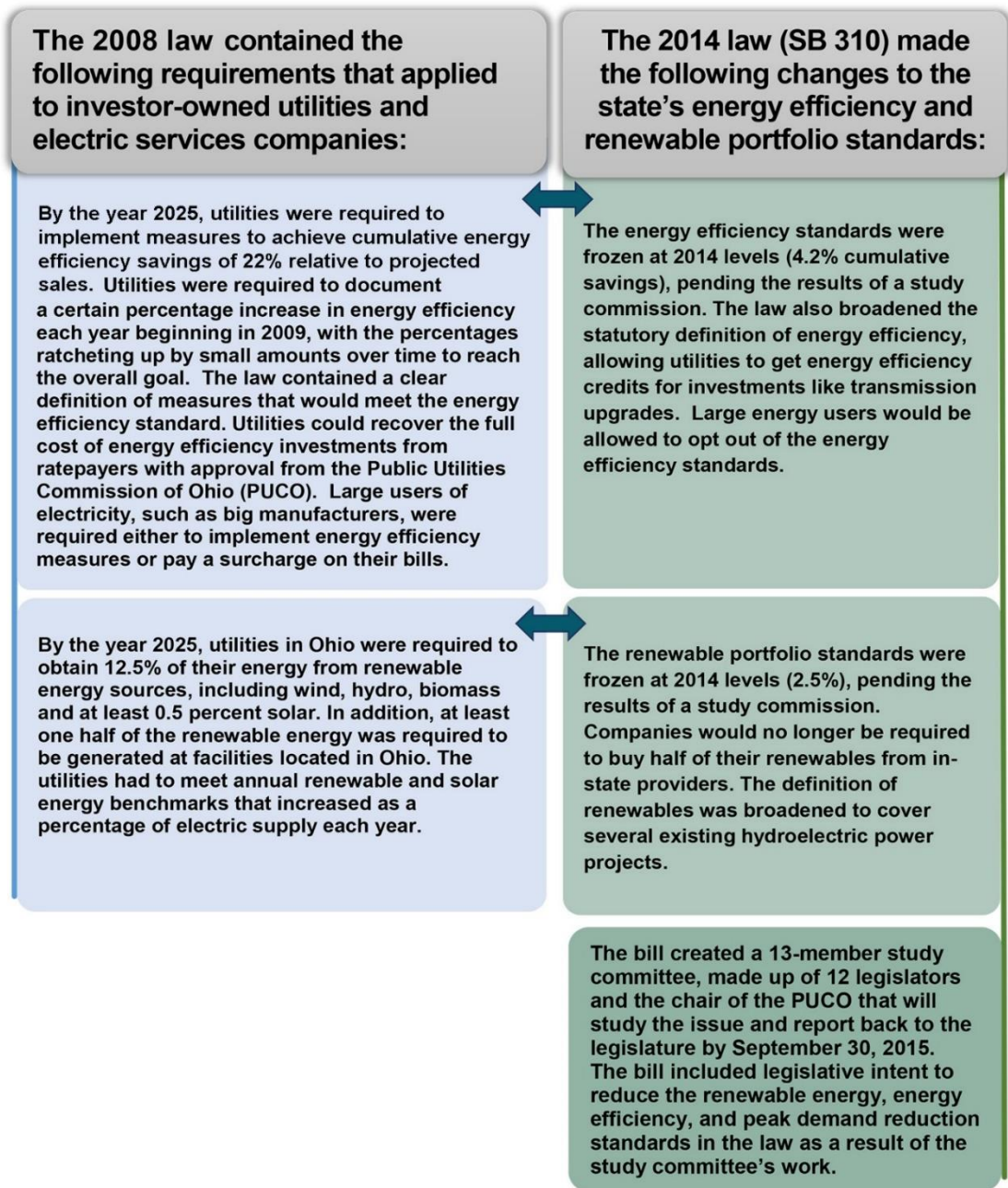
⁸² Max Neubauer, Ben Foster, R. Neal Elliott, David White, and Rick Hornby, *Ohio's Energy Efficiency Resource Standard: Impacts on the Ohio Wholesale Electricity Market and Benefits to the State*, American Council for an Energy Efficiency Economy, April 2013. http://www.ohiomfg.com/legacy/communities/energy/OMA-ACEEE_Study_Ohio_Energy_Efficiency_Standard.pdf

⁸³ Dan Gearino, *Utility seeks to cap energy-efficiency rule*, The Columbus Dispatch, November 27, 2012 <http://www.dispatch.com/content/stories/business/2012/11/27/utility-seeks-to-cap-energy-efficiency-rule.html>

FE and its allies regrouped for the next legislative session in 2014. They introduced a somewhat modified version which, rather than permanently freezing the standards outright, provided for a two-year freeze at 2014 levels. A study committee would be created that would report back at the end of 2016 about whether the freeze should be continued.

The FE bill, SB 310⁸⁴, was hotly debated during legislative hearings, and virtually every Ohio newspaper editorialized against it, citing a potential loss of jobs from investment in renewables in the state and the loss of savings from energy efficiency. Nonetheless, the bill passed first the Senate, and then the House in May, and the governor signed the bill into law on June 13, 2014. Below is a comparison of the provisions of the 2008 law with the changes that were made in 2014:

⁸⁴ http://www.legislature.state.oh.us/bills.cfm?ID=130_SB_310



FE welcomed the Governor's signing of the bill.⁸⁵ FE has already begun implementing the roll-back of the energy efficiency standards. In September 2014, FE filed an application with the Public Utilities Commission of Ohio to amend its energy efficiency programs to eliminate its non-low-income residential and commercial energy efficiency programs and to allow large industrial customers to opt-out of paying for and participating in the utility's efficiency programs.⁸⁶

⁸⁵ Toledo Blade Staff, *As expected, Gov. Kasich sign Ohio Senate Bill 310 into law*, Toledo Blade, June 13, 2014.

⁸⁶ Public Utilities Commission of Ohio, *Application for Approval of Amended Energy Efficiency and Peak Demand Reduction Plans for 2015 Through 2016*, September 24, 2014."

E. Opposition to participation of energy efficiency and demand response in PJM capacity market

FE is opposed to the participation of energy efficiency and "demand response" in PJM's capacity market. Demand response is the practice of paying electricity customers to curtail use in order to reduce demand at the most expensive peak periods of the day.

PJM's capacity market is a three-year forward market. PJM reserves the amount of capacity that it expects will be needed to meet demand, plus reserve margin, three years from now. All power plants bid into the auction, and all that clear the auction are awarded the market clearing price for their capacity.

The stated goal of PJM's capacity market is to provide a price signal that will steer investment in new generation to where it is most needed. In practice, the capacity market has not been effective at doing this. The only new "generation" that it has incentivized is demand response, which can be developed on a much shorter time horizon and with much less capital investment than supply-side generation. Instead, the capacity market has primarily subsidized the continued operation of older power plants.⁸⁷

Even though distribution utilities can bid energy efficiency into the capacity market as a resource, FE has been opposed to doing so. Not bidding energy efficiency into the capacity market has two results: it prevents FE's distribution customers from benefitting from the money that they would have otherwise received had that capacity been bid in. And it also artificially inflates capacity prices because a low-cost resource – energy efficiency – is being prevented from bidding into the market. In other words, FE opposes the bidding of energy efficiency and demand response into the capacity market because it wants to maintain high capacity prices to support its coal and nuclear generation.

⁸⁷ M. Wittenstein and E. Hausman, *Incenting the old, preventing the new*, Synapse Energy Economics, June 14, 2011.

This was particularly problematic in the 2015/16 auction, when FE's zone in northern Ohio cleared at the high price of \$357/MW-day, about three times higher than the rest of PJM. An expert witness for the Sierra Club argued in a case before the Public Utilities Commission of Ohio that FE only bid into the auction about a fifth of the energy efficiency savings that it actually could have. Had FE bid its entire energy efficiency savings into that auction, the auction clearing price would have been lowered by up to \$150/MW-day. This would have saved ratepayers in this zone approximately \$600 million in capacity market payments to power plants in 2015/16.⁸⁸

The Public Utilities Commission of Ohio ordered that FE bid more of its energy efficiency into the PJM capacity market in 2013.⁸⁹ The Commission noted that failure to bid energy efficiency into the capacity market could result in the Commission denying FE full recovery from ratepayers of the costs of their energy efficiency programs.⁹⁰

FE has also taken formal steps to oppose demand response in the capacity market. It has recently filed a complaint at the Federal Energy Regulatory Commission seeking to void the latest PJM capacity auction results because of their inclusion of demand response resources.⁹¹ This is despite the fact that PJM credits the availability of demand response with having played a large role in maintaining the stability of the electricity grid during the “polar vortex” events in the winter of 2014.⁹²

F. FirstEnergy’s reliance on federal coal subsidies at Signal Peak

In 2008, FE made a \$125 million investment⁹³ in the Signal Peak mining operation near

⁸⁸ Public Utilities Commission of Ohio, *Direct testimony of Chris Neme on behalf of the Sierra Club*, Case No. 12-1230-EL-SSO, May 21, 2012.

⁸⁹ Public Utilities Commission of Ohio, *Opinion and Order*, Case No. 12-2190-EL-POR, March 20, 2013.

⁹⁰ Public Utilities Commission of Ohio, *Entry on Rehearing*, Case No. 12-2190-EL-POR, July 17, 2013.

⁹¹ E. Whieldon, *Experts foresee broad market impacts from court overturning FERC demand response rule*, May 27, 2014, <http://www.snl.com/interactivex/article.aspx?id=28216310&KPLT=6>.

⁹² “Although operational conditions were tight during the Polar Vortex, some variables exceeded PJM’s expectations in real-time: the availability and response of voluntary demand response, the response of the stakeholders to the public appeal for conservation, and the performance of wind-powered generation. Demand response, although not required to respond during the winter this year, did respond and assisted in maintaining the reliability of the system. In fact, the total amount of demand response provided was larger than most generating stations.” (PJM Interconnection, *Analysis of Operational Events and Market Impacts During the January 2014 Cold Weather Events*, May 8, 2014, <http://www.pjm.com/~media/documents/reports/20140509-analysis-of-operational-events-and-market-impacts-during-the-jan-2014-cold-weather-events.ashx>)

⁹³ FirstEnergy, Press Release, *FirstEnergy Secures Long Term Fuel Supply With Investment in Montana Coal Field*, July 17, 2008.

Roundup, Montana. The transaction occurred through a buyout of an existing mine under lease with the federal coal program. FE sold a third of its interest in the mine to Gunvor Group, an international energy trading company, in 2011, and declared a gain of \$569 million on its 2008 investment.

The Signal Peak mine increased in value so dramatically from 2008 to 2011 due to subsidies that the mine receives under the federal Bureau of Land Management's coal leasing program. For thirty years, the federal government has leased coal from the Powder River Basin to privately owned coal companies for below fair market value.⁹⁴ When coal is sold for below market levels the US taxpayer loses money. The Signal Peak mine expanded production under the federal coal leasing program after FE purchased it, increasing production from 755,000 tons of coal in 2009 to 4.4 million tons in 2010. In other words, FE profited from the fact that it was able to secure a below market-rate coal supply to expand its mining operation.

Although the stated intent of the company was to secure a steady supply of high quality coal for its coal plants from Signal Peak at an affordable price,⁹⁵ it never used the mine for that purpose. In 2010, of the 4.4 million tons produced at the mine, less than half went to the U.S. domestic coal market for use in power generation (most to FE plants). Since 2009, Signal Peak has produced an estimated 20 million tons of coal. Of those 20 million tons, only 3 million tons were sold to domestic coal plants,⁹⁶ mostly in 2010 and 2011. A 2012 press release from the Gunvor Group, announcing an international finance syndicate, did not mention sale of the coal for use within the United States at all, but only refers to sale of the coal in Asian markets.⁹⁷ In 2014, the only domestic coal deliveries have been to Wisconsin Electric Power's Valley plant.

FE and Gunvor Group have profited from the ability to export coal produced at the Signal Peak mine overseas without having to pay royalties to the federal government. The U.S. government is supposed to collect 12.5% royalties on the gross income from

⁹⁴ For a discussion of the underlying issues related to fair market value issue, see: <http://www.ieefa.org/study-almost-30-billion-in-revenues-lost-to-taxpayers-by-giveaway-of-federally-owned-coal-in-powder-river-basin/>

⁹⁵ Barry Cassell, *FirstEnergy sees advantages in Montana coal mine investment*, SNL Financial, November 5, 2008.

⁹⁶ SNL database, *Signal Peak Fuel Delivery Summary*, Sourced: July 15, 2014

⁹⁷ Rohan Somanwensi, *Gunvor closes \$250 million facility to fund Signal Peak mine deal*, SNL Financial, June 11, 2012. See also: Gunvor Press Release, June 11, 2012

each ton of coal sold under its lease agreement. The value of exported coal is exempted from this collection.⁹⁸ FE/Signal Peak appears to have sold upwards of 17 million tons of coal since 2009 on the export market. During this period Arch and Peabody were estimating net income of \$26 per ton.⁹⁹ Using this figure, FE/Signal Peak has made \$55 million from not paying royalties.¹⁰⁰ Put another way, the U.S. taxpayer has lost this revenue.

FirstEnergy has benefited from a dysfunctional federal coal lease program that effectively gives away federal coal below fair market value. It leveraged this undervaluation to significant benefit in its sale to Gunvor. These profits were then used to offset deep structural losses from FE's merchant fleet on the company's balance sheet, underwrite economic development in other countries and boost the bottom line of an international banking syndicate. In short, FE's Signal Peak venture represents a government giveaway that enhanced the value of the company on a non-core project.

The federal coal lease program is designed to support coal fired generation in the United States. The decision to give away the coal for below fair market value was designed to expand the number of plants burning coal in the United States. In this instance there is significant mission drift. Some may see this as a creative and prudent use of corporate assets, others may see this as an abuse of the taxpayer. What this \$600+ million and rising giveaway of U.S. assets could not be described as, however, is a "war on coal."

⁹⁸ Senator Ron Wyden, *Senators Wyden and Murkowski Seek Answers on Coal Royalty Payments*, January 4, 2013, See also: Patrick Rucker, *Asia coal export boom brings no bonus for U.S. taxpayers*, and *U.S. coal exports trade raises alarms for Western States*, Thomson Reuters, December 4, 2012 and December 20, 2012, respectively.

⁹⁹ The net income represents the income to the coal company for its foreign sale minus cost of production in the United States and transportation.

¹⁰⁰ 17 million tons at \$26 per ton gives a net income of \$442 million. At the 12.5% royalty rate, FE would have paid \$55 million on this coal had it been sold domestically.

Section 4: Forward-looking strategy does not work

Historically, FE's strategy has emphasized deregulation, focusing on profiting from merchant generation and from expanding its retail sales in states with retail choice. FE is abandoning this strategy to focus on opportunities for growing profits in its regulated business. This means aggressively pursuing rate increases, seeking bailouts of its merchant power plants from ratepayers, and pursuing policies that stifle competitors to coal. While this forward-looking strategy is clearly negative for the company's customers. We also do not think it will be successful at solving FE's financial problems. In the previous section, we described some specific examples of the impact of FE's strategy on ratepayers and taxpayers. In this section, we put those examples in the larger context of FE's change from a merchant-oriented strategy to a regulated strategy, and argue that this change in strategic direction is unlikely to lead to a significant recovery for the company in the short to medium term.

A. Historic dependence on coal generation has been poor strategy

FE's strategic emphasis on merchant coal generation is shown by its 2011 merger with Allegheny Energy.

Almost 80% of Allegheny Energy's capacity was coal at the time of the merger. FE's 2011 10-k described the company's business model as "market-focused"¹⁰¹ and FE CEO Anthony Alexander told investors that "our competitive business, our diverse generating fleet and the scale of our utility operations, will help us become one of the best-positioned companies for growth in this industry."¹⁰²

Many of the other mergers and acquisitions occurring from 2010-2013¹⁰³ placed increased reliance on regulated generation. FirstEnergy's emphasis on the supposedly positive aspect of greater exposure to the merchant market seems anomalous and out of step with the rest of the electric utility industry.

¹⁰¹ FE 2011 Form 10K, p. 52

¹⁰² FE Q1 2011 *earnings call transcript*, May 4, 2011.

¹⁰³ See the thematic treatment of Credit Ratings and regulatory asset divestiture and transfers in the 2010, 2011, 2012 and 2013 discussions of Credit Ratings in EEI's Financial Reviews.

FE bought a major coal-dependent utility, Allegheny Energy, at exactly the time when the market for merchant coal generation was going downhill. FirstEnergy's merchant generation segment has performed poorly over the past three years.

At the time of the merger, FE articulated a goal of improving the performance of its supercritical coal fleet, placing the fleet in the top decile of capacity performance in the nation. (Capacity factors measure the percentage of time that a facility is generating electricity). However, according to the most recent data, the company is not on track to meet its goal of top decile performance by 2014. In 2013, two units from FE's supercritical fleet (one from Bruce Mansfield and one from Fort Martin) made the top decile, but the remaining ten units from the five supercritical plants did not achieve this performance goal.¹⁰⁴

Several key financial metrics - revenues, net income, and debt - all point to the weak performance of FE's merchant fleet. The merchant fleet posted a 2013 loss and is poised to lose money again in 2014. The regulated sector produced 182% of net income in 2013. A recent analysis from UBS Investment Research estimates that FirstEnergy Solutions, one of FirstEnergy's merchant companies, has negative value, due to its high levels of debt and poor financial performance. FE's merchant plants have struggled to sell their power competitively in the current environment of low wholesale power prices. Capacity markets, which pay power plants for having their capacity available to meet peak demand, provide an additional source of revenue for merchant power plants. The capacity market is administered by regional electric grid manager PJM Interconnection with the stated goal of ensuring that there is sufficient generation capacity available to ensure reliable operation of the grid. Capacity market payments have been insufficient to make FE's merchant fleet financially viable. PJM's capacity prices have already been set through the 2017/2018 delivery year. Prices in FE's northern Ohio zone will spike to \$357/MW-day in 2015/16 (a record high price), providing a one-time boost in revenue to some of FE's generation in that

¹⁰⁴ SNL Database, Custom Peer Analysis/Capacity Factors by Supercritical Plants/Sourced July 3, 2014

region. In its second quarter 2014 earnings call, FE's CEO confirmed that capacity prices through 2017/18 are "still not where they need to be."^{105,106}

Mr. Alexander stated further that the company's largest merchant coal plant, the 2.4 GW Bruce Mansfield plant, did not clear the 2017/2018 capacity auction and only partially cleared the 2016/17 auction. This means that the plant will not receive any revenues from the capacity market in 2017/18. As a result, FirstEnergy is delaying capital expenditures at the plant.¹⁰⁷

Analysts at UBS are now saying that the retirement of Mansfield is a "ready possibility in the medium term."¹⁰⁸



Bruce Mansfield Plant

Additionally, the financial performance of FE's merchant fleet may be challenged by coal prices, which are expected to rise over the next several years. The coal mining industry in the U.S. is experiencing an unprecedented level of poor financial performance, including 26 bankruptcies of mostly small coal producers in 2012-2013.¹⁰⁹ The industry must find a way to raise prices in order to prosper in the long-term.

¹⁰⁵ FirstEnergy, *Q2 2014 Earnings Call Transcript*, August 5, 2014

¹⁰⁶ Several recent changes (including PJM's proposed modification to its capacity market to introduce a new capacity product, and a recent US Court of Appeals ruling vacating FERC Order 745 that may impact the participation of demand response in capacity markets) are expected to raise capacity market prices. (See: UBS Investment Research, *US Electric Utilities & IPPs: PJM's Potential Triple Whammy Uplift*, September 16, 2014). It is not clear how much these changes will impact FE, or how FE would make use of any additional revenue if it materializes.

¹⁰⁷ FirstEnergy, *Q2 2014 Earnings Call Transcript*, August 5, 2014

¹⁰⁸ UBS Investment Research, *FirstEnergy Corp.: Where's the value in power?* August 6, 2014

¹⁰⁹ Darren Epps, *Bankruptcies continue to rock coal companies in '13, but hope for the survivors*, SNL Financial, December 5, 2013

FirstEnergy's merchant subsidiary is not expected to recover financially in the near future. In the short and medium term, even as FE disposes of its merchant coal fleet, the fleet will continue to underperform and perhaps lose money. Energy margins in the merchant sector are expected to remain tight.¹¹⁰

FE's continued choice of coal as a fuel source, particularly for a utility in mid-Atlantic and Midwest markets, is increasingly risky in this new era characterized by low power prices, a glut of natural gas, rising importance of renewable energy and popular opposition to coal. Low natural gas prices are keeping a lid on short-term coal prices. The incursion of natural gas, renewables and energy efficiency as new, permanent investments in the nation's electricity grid points to a broader, more diversified generation mix for the region.

Although individual companies in the utility industry are moving toward greater diversification, particularly away from coal, FE's overall strategy has produced the following operational dynamics: 1) FE's coal-fired capacity is at about the same level as before the merger; 2) FE's actual generation from coal is about 66%; and 3) despite significant levels of retirements the company has not managed to reduce its debt load. It remains to be seen how a company that continues to rely on coal for two-thirds of its generation, with limited debt options can continue.

B. FirstEnergy is reversing its strategy of aggressively expanding retail sales

FE's strategy of aggressively expanding its retail sales has also not worked out as well as the company had hoped. In Ohio, a deregulated state, electricity customers can choose their electricity supplier. FE's merchant generating company, FirstEnergy Solutions (FES), aggressively moved to capture more of this market. In 2010, FE grew

¹¹⁰ FE's projections for natural gas prices through 2015 suggest very little change. Capacity pricing is expected to rise and then drop again. Overall expenses for the competitive fossil fleet are expected to stay the same. See: 1Q 2014Fact Book, Slide 154-155.

FES's base by a factor of three, tripling it from 0.5 million customers in 2009 to 1.5 million.¹¹¹ As of 2013, FES had 2.7 million customers.¹¹²

In order to retain and expand its customer base, FES offered rates that were very close to (and, in some cases, possibly below) wholesale market prices.¹¹³ FES's business model was built on aggressively expanding its customer base by underselling the competition.

This turned out to be a problem for FE during the 2014 "polar vortex." Several polar vortex events in January and February 2014, characterized by extreme cold weather, resulted in very high power demand in the PJM territory. Natural gas deliverability constraints and unexpected outages of some large generators drove power prices in PJM to record highs. However, FE was not able to take advantage of this potential revenue windfall to support its merchant generating companies. Instead, as FE reported in its Q1 2014 earnings call, "we had several nuclear and fossil outages and derates [reductions in available capacity at a generating unit] that occurred during the most volatile pricing periods. [T]hese outages, given the high prices for energy during those periods, had a significant impact on our results."¹¹⁴ Because of its own outages, FES had to become a net buyer from the market in order to supply its customers' demand at peak times when market prices were highest.

As part of a "far more conservative approach in competitive markets," FE has outlined three strategies for mitigating this problem in the future: 1) increasing its retail sales price to better price risk; 2) increasing its hedging for the retail load; and 3) purchasing additional outage insurance.¹¹⁵

In its second quarter 2014 earnings call, FE announced a change in course, reversing its strategy of aggressively expanding its retail customer base. The company noted it had shed 100,000 retail customers in the first half of 2014, reducing its customer base from 2.7

¹¹¹ FirstEnergy, *Q4 2010 Earnings Call Transcript*, February 16, 2011

¹¹² FE 2013 Annual Report

¹¹³ Matt Brakey, *No Solutions: Four problems FirstEnergy Solutions could not answer*, Crain's Cleveland Business, September 19, 2014

¹¹⁴ FE *Q1 2014 Earnings Call Transcript*, May 6, 2014

¹¹⁵ FE *Q1 2014 Earnings Call Transcript*, May 6, 2014

million to 2.6 million.¹¹⁶ FE recently announced that it is pulling out of the retail business in Illinois, where it currently has more than 220,000 residential customers.¹¹⁷

After FE's second quarter 2014 earnings call, analysts at UBS noted that, "[p]ulling out of retail is a big deal for credibility of business model" and that "[t]he decision to scale back from retail marks a key turning point for the company, having relied upon this strategy as a core element to maintain pricing through the last four-year downturn."

While these actions reduce the downside risk of FirstEnergy's retail strategy, they also reduce its upside potential. According to UBS Investment Research, "[e]ssentially the move to de-risk the business will result in higher costs and lower earnings in the future."¹¹⁸

C. FirstEnergy has recently announced a shift to focusing on regulated growth

As a result of the poor performance of its competitive generation strategies, FirstEnergy has recently changed course. At the time of the merger, FE had said, "[w]e do not need to grow our business by expanding our rate base."¹¹⁹ Today, the focus of the business is exactly on securing as much revenue as it can under a regulated system.¹²⁰ Specifically, FE is planning major investments in its transmission system and more frequent rate cases. FE succeeded in 2013 in shifting 1576 MW of the Harrison power plant from merchant subsidiary Allegheny Energy Supply to regulated Mon Power. FirstEnergy expects to achieve at least 80% of its earnings from the regulated business going forward.¹²¹ This is consistent with recent performance (85% of earnings came from the regulated business in 2013).¹²²

¹¹⁶ FE Q1 2014 Earnings Call Transcript, May 6, 2014

¹¹⁷ Steve Daniels, *FirstEnergy Solutions cuts cord in Illinois*, Crain's Chicago Business, August 18, 2014

¹¹⁸ UBS Investment Research, *FirstEnergy Corp.: Competitive Dis-synergies*, July 31, 2014

¹¹⁹ Full quote: "We do not need to grow our business by expanding our rate base. Instead, we are focused on growth through efficiencies, cost controls and making the most of the assets we already have. We will upgrade our facilities to meet increased demand and to reduce the costs and risk in our business, and we will invest in efficiency and productivity improvements to make our assets more competitive." (FE Q1 2011 earnings call, May 4, 2011)

¹²⁰ FE Q4 13 Earnings call, February 25, 2014

¹²¹ Ibid.

¹²² FE Q4 2013 Fact Book, February 2014

Harrison Coal Plant transfer

In October 2013, FE received approval from the West Virginia Public Service Commission to sell 1,576 MW of the Harrison power plant from deregulated Allegheny Energy Supply to regulated Mon Power, thus completing a key aspect of FE's new regulated strategy.

In FE's third quarter 2013 earnings call, shortly after the transaction closed, CEO Anthony Alexander explained that one of the key drivers of the

transaction was the need to put the Harrison plant in a regulated environment, in which West Virginia ratepayers will be responsible for its costs for the next 25+ years. He stated:

[O]ur competitive operations have been challenged not by operational performance, but by capacity and energy markets that do not support investment in, or in some instances, the operation of generating units. While we can debate for reasons this is occurring, the fact is, power prices have been weak for the last couple of quarters and we may be facing continued soft power prices for at least the next several years. As a result, we began to reposition our competitive business in 2012 and now through a series of even more aggressive actions have better positioned this business for the future.

For example, we have reduced the size and mix of the fleet by closing and selling competitive units. Last month, we closed the Hatfield and Mitchell Power plants and we expect to complete the sale of certain hydro assets later this year. In addition, we completed the Harrison and Pleasants transfer this quarter. ¹²³



Harrison Coal plant, by Scott Mosher

¹²³ Part of the Harrison transaction also involved the sale of a small fraction (100 MW) of the Pleasants power plant from Mon Power to Allegheny Energy Supply. (FE *Third Quarter 2013 Earnings Call Transcript*, November 5, 2013).

Transmission

FE owns the largest transmission system within PJM.¹²⁴ FE announced in its fourth quarter 2013 earnings call that it is planning to invest \$4.2 billion in this transmission system from 2014-2017.

This would roughly double the value of its existing transmission assets; as of the end of 2013, net transmission plant in service was \$4.1 billion.¹²⁵ This investment will mainly be in the northern Ohio zone, where FE earns a Federal Energy Regulatory



FE power lines, by Associated Press

Commission (FERC)-approved 12.38% return on equity on its transmission investments.¹²⁶ The company is targeting annual transmission earnings growth of 20%+ per year.¹²⁷

It is worth noting that FE has the highest return on equity for transmission investments of any peer utility in PJM (a holdover from when FirstEnergy's transmission system used to be part of a different Midwest regional energy market, MISO), and is therefore at risk that FERC may lower this return on equity.^{128,129}

Rate cases

Another piece of FE's regulated strategy is to file more frequent rate cases.¹³⁰ FE currently has rate cases pending in West Virginia, New Jersey, Pennsylvania, and Ohio. The Ohio rate case is described in more detail in the next section. The following table summarizes the rates cases filed in West Virginia, New Jersey, and Pennsylvania:

¹²⁴ Ibid.

¹²⁵ Ibid.

¹²⁶ Ibid.

¹²⁷ Ibid.

¹²⁸ UBS Investment Research, *FirstEnergy Corp.: Competitive Dis-synergies*, July 31, 2014

¹²⁹ Transmission returns on equity are generally only revised if challenged by a complaint at FERC. Such complaints are relatively rare but have been increasing (Glen Boshart, *Moody's: FERC still will support new transmission, but perhaps with lower ROEs*, SNL Financial, May 20, 2013)

¹³⁰ Ibid.

Table 11: Summary of rate cases filed in Pennsylvania, New Jersey and West Virginia¹³¹

Utility	State	Requested rate increase (million \$)	Requested rate increase (%)	Requested return on equity	Date case filed	Case number
Metropolitan Edison	PA	151.9	11.50%	10.90%	8/4/14	R-2014-2428745
Penelec	PA	119.8	8.60%	10.90%	8/4/14	R-2014-2428743
Penn Power	PA	28.5	8.70%	10.90%	8/4/14	R-2014-2428744
West Penn Power	PA	115.5	8.40%	10.90%	8/4/14	R-2014-2428742
Jersey Central Power & Light	NJ	11.0	1.90%	8.66%	2/22/13	ER-12111052
Mon Power & Potomac Edison	WV	151.6	14.68%	11%	4/30/14	14-0702-E-42T

The average return on equity awarded in utility rate cases nationally in 2013 was 10%¹³², suggesting that FE is unlikely to realize the returns on equity requested in the above cases. FE's New Jersey rate case appears especially ambitious, as the Staff of the New Jersey Board of Public Utilities is recommending a \$207.4 million rate decrease.¹³³

FE has no plans to file a rate case in Maryland, where its subsidiary enjoys the second-highest return on equity of any of its ten distribution utilities.¹³⁴

¹³¹ Katerina Dimitratos, *FirstEnergy companies request electric rate increases in Pennsylvania*, SNL RRA Regulatory Focus, August 7, 2014; SNL Financial, *Rate Case Profile D-ER-12111052*, no date; WV Public Service Commission, *Direct Testimony of Kevin G. Wise on behalf of Monongahela Power Company and the Potomac Edison Company*, Case No. 14-0702-E-42T, June 6, 2014; WV Public Service Commission, Amendment to the general base rate case filing of Monongahela Power Company and the Potomac Edison Company, June 13, 2014.

¹³² Edison Electric Institute, *Rate Case Summary Q1 2014*, no date.

¹³³ SNL Financial, *Rate Case Profile D-ER-12111052*, no date

¹³⁴ FE 4Q 2013 *Fact book*, February 2014.

Proposed Ohio merchant plant bailout

In its Ohio rate case, FirstEnergy is seeking approval for a power purchase agreement, under which its Ohio distribution utilities will purchase the output of the Sammis coal plant (2,200 MW), Davis-Besse nuclear plant (908 MW), and FES's share of the OVEC coal plants (53 MW) at a set price. As with the Harrison deal, this proposal would shift the risk of operating these merchant plants onto Ohio ratepayers, who will pay for the plants' costs regardless of whether market purchases would be a less expensive alternative. In testimony to the Public Utilities Commission of Ohio, FE candidly explains the poor financial performance of the plants and the need for a ratepayer bailout:

The economic viability of the Plants is in doubt. Market-based revenues for energy and capacity have been at historic lows and are insufficient to permit FES to continue operating the Plants and to make the necessary investments. Near-term forecasts for energy and capacity prices are unfavorable. While Company witness [Judah] Rose forecasts that market prices for energy and capacity will increase over time, the Plants may not survive to see these better days....

[T]he future of the Plants is in doubt. The Plants are not receiving sufficient revenues to cover the Plants' costs, both from an energy and capacity standpoint. In light of the historically low level of revenues for the last several years, FES may not be financially able to bear the short-term losses associated with the Plants.¹³⁵

While FE's new regulated strategy will undoubtedly produce more revenues than its merchant strategy, we do not believe that this strategy will be able to turn the company around in the near future, a concern which has also been voiced by some financial analysts.¹³⁶ FE, at the enterprise level and as the parent company must

¹³⁵ Public Utilities Commission of Ohio, *Direct Testimony of Donald Moul on behalf of Ohio Edison Company, The Cleveland Electric Illuminating Company and The Toledo Edison Company*, August 4, 2014. pp. 2-3.

¹³⁶ "The cornerstone of management's new strategy discussed earlier this year is pursuing more regular rate cases across all of its various jurisdictions. While its pending case in New Jersey should have clarity shortly after the 2Q call, we look for management to file several new cases in the near-term to 're-baseline' earnings/rate schedules to put itself in a position to lean on its utilities to drive rate base growth. Previously we had expected a series of rate cases in Pennsylvania ~mid-2014 as FE seeks to capitalize on spending opportunities in this jurisdiction but thus far the regulatory calendar has been quiet in the state. For reference, FE has not increased rates at either West Penn Power or Penn Power (last increases came in 1994 and 1988, respectively, before FE owned the entities). A focus will be on the *allocation* of costs across its utility portfolio as we worry the companies have historically over-earned, hence the prior hesitancy to file for rate relief, and also given its historical limited reinvestment. Meanwhile, management's cautious tone towards any meaningful distribution growth prior to 2016 despite the cases reinforces our concerns

manage extraordinary levels of short and long-term debt. It will be difficult to extract cash from regulated operations to pay down this debt.

Additionally, while there has been significant capital expenditure in the regulated business recently, capital expenditures for regulated generation are likely to decline after the company finishes retrofitting power plants for the federal Mercury and Air Toxics (MATS) rule. This will reduce the potential for growth available in the regulated segment.

Finally, rising interest rates will put pressure on the regulated operations, as there will be regulatory lag in recovering increased interest rates from ratepayers.

Section 5: Conclusion

FE's financial performance has deteriorated over the past several years. Revenues and stock price are down, and dividends were recently reduced. This occurred as net margins in 2013 for the industry as a whole rose by 41.1% and the stock market and energy indexes rose as well.

The company's historic reliance on merchant generation, particularly merchant coal generation, has not been successful. The merchant generation segment has been the major driver of the company's poor financial performance.

The company has now reversed course and embraced government regulation as strategy to preserve its business. The company has pursued a political strategy that calls for government and ratepayer subsidy of coal and nuclear generation, while opposing policies to support competing sources of generation, including energy efficiency and demand response. This strategy is shown through:

over its latest rate strategy" (UBS Investment Research, *FirstEnergy Corp.: Competitive Dis-synergies*, July 31, 2014.)

- *Insider dealing on renewable energy credits in Ohio.* The Public Utilities Commission of Ohio fined FE's Ohio distribution utilities \$43.4 million in 2013 for buying renewable energy credits at inflated prices from FirstEnergy Solutions at ratepayer expense.
- *Refusal to bid energy efficiency into capacity market in Ohio.* FE's failure to bid energy efficiency into the regional capacity market drove up the price of capacity in FE's northern Ohio zone, benefitting FE's power plants but costing ratepayers in northern Ohio approximately six hundred million dollars.
- *Passage of Ohio legislation freezing energy efficiency and renewable energy standards.* FE was the leader in the fight to pass Senate Bill 310 in 2014, which froze Ohio's energy efficiency and renewable energy standards for the next two years.
- *Transfer of Harrison plant at an inflated price.* In 2013, FE transferred the Harrison coal plant from Allegheny Energy Supply to Mon Power. By transferring the plant from a merchant to a regulated subsidiary, FE ensured that West Virginia ratepayers would pay an inflated price for the future costs of the plant. FE's own numbers indicate that the deal will lose ratepayers money at least through 2029.
- *Reliance on federal coal subsidies at Signal Peak.* FE has taken advantage of the subsidized cost of leasing federally owned coal in the Powder River Basin to turn a profit on its investment in the Signal Peak mine.
- *Opposition to energy efficiency in Ohio, Pennsylvania, and West Virginia.* FE has aggressively opposed energy efficiency, and in some cases failed to meet mandatory statutory benchmarks for efficiency, in these three states.
- *Proposed bailout of coal and nuclear plants in Ohio.* FE is seeking a ratepayer bailout for its Sammis, Davis-Besse, and OVEC plants; under the proposal, FE customers will pay a fixed amount to cover the cost of running the plants, no matter what their electricity is actually worth on the market. FE's own numbers estimate that this proposal will cost ratepayers over \$400 million in the first three years.
- *Proposed rate increases.* As part of a more aggressive regulatory strategy, FE is currently seeking rate increases totaling nearly \$600 million in Pennsylvania, West Virginia, and New Jersey.

In short, FirstEnergy's regulatory and political strategies are aimed to squeeze as much profit as possible out of the regulated subsidiaries, while using the regulated subsidiaries

and other taxpayer subsidies to prop up its failed merchant generation business. But despite the above initiatives, FE's financial situation has not turned around, and the company is still burdened by excessively high levels of debt. FE's reliance on subsidies and bailouts – while costly to ratepayers – will not solve the underlying downward slide of the company's financial performance.

About the authors

Tom Sanzillo, Director of Finance

Tom Sanzillo is the Director of Finance for the Institute for Energy Economics and Financial Analysis. He has written several studies on coal plants, rate impacts, credit analyses, and the public and private financial structures for coal. In addition, Tom has testified as an expert witness, taught training sessions, and conducted media interviews. Prior to his work with the Institute for Energy Economics and Financial Analysis and his own consulting practice, Tom spent 17 years with both the City and the State of New York in various senior financial and policy management positions. He was formerly the State of New York's first deputy comptroller, a job that put him in charge of the finances of 1,300 units of local government, the management of 44,000 government contracts annually, oversight of over \$200 billion in state and local municipal bond programs and responsibility for a \$156 billion pension fund. From 1990 to 1993 Tom also served in senior management in the New York City Comptroller's Office.

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Cathy Kunkel is an independent consultant focusing on energy efficiency and utility regulation. She has testified on multiple occasions before the West Virginia Public Service Commission, as part of her consulting work for the non-profit coalition Energy Efficient West Virginia. Prior to moving to West Virginia in 2010, she was a graduate student in the Energy and Resources Group at the University of California-Berkeley and a senior research associate at Lawrence Berkeley National Laboratory. She has undergraduate and graduate degrees in physics from Princeton University and Cambridge University. She is a part-time fellow with the Institute for Energy Economics and Financial Analysis.

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