

FIRSTENERGY

A MAJOR UTILITY SEEKS A SUBSIDIZED TURNAROUND



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

IEEFA

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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.

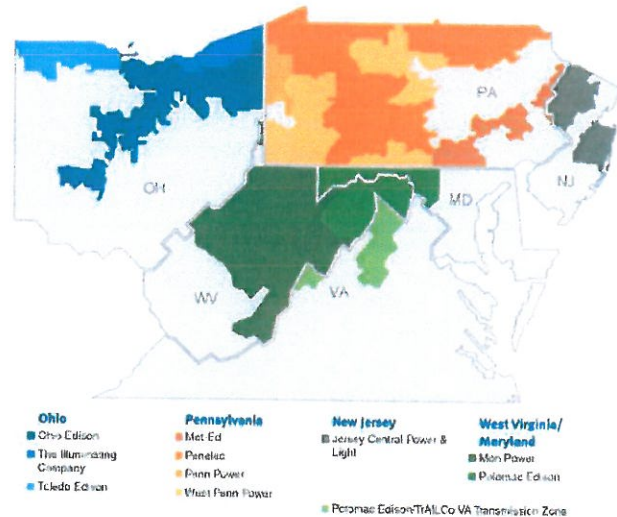
FirstEnergy's latest proposed regulatory bailout is its pending request to the Public Utilities Commission of Ohio asking ratepayers to subsidize the continued operation of its W. H. Sammis coal plant, its Davis-Besse nuclear plant, and its share of the OVEC coal plants. FirstEnergy is requesting that 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



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.

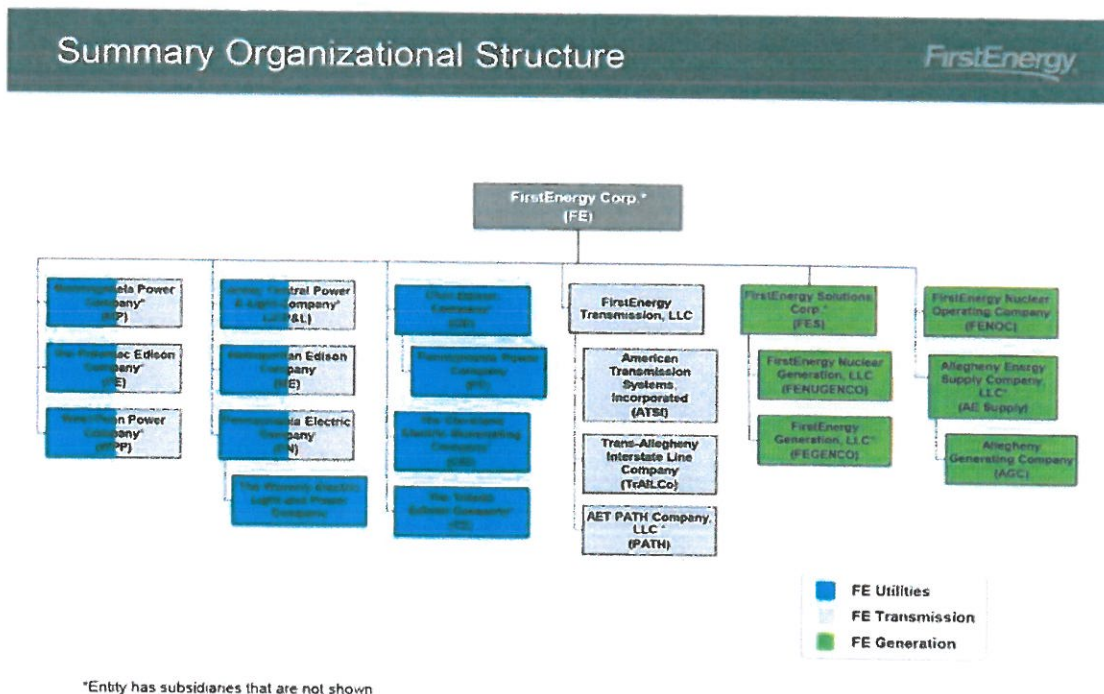
Jersey, and a tiny service territory in New York. FE's merger with Allegheny Energy in 2011 added holdings in West Virginia, Maryland, Pennsylvania and Virginia. Today FE owns several **regulated distribution utilities**: Ohio Edison (OH), The Cleveland Electric Illuminating Company (OH), Toledo Edison (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



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%	7,547	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 10K¹⁸ American Electric Power, 2013 Form 10K, February 25, 2014¹⁹ Dominion, 2013 Form 10K, February 28, 2014²⁰ PPL Corp., 2013 Form 10K, February 24, 2014²¹ Duke Energy, 2013 Form 10K, February 28, 2014²² Edison International, 2013 Form 10K, February 25, 2014²³ FE 2013 Form 10K, p.2²⁴ FE, 2011 Form 10K, p. 41²⁵ 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

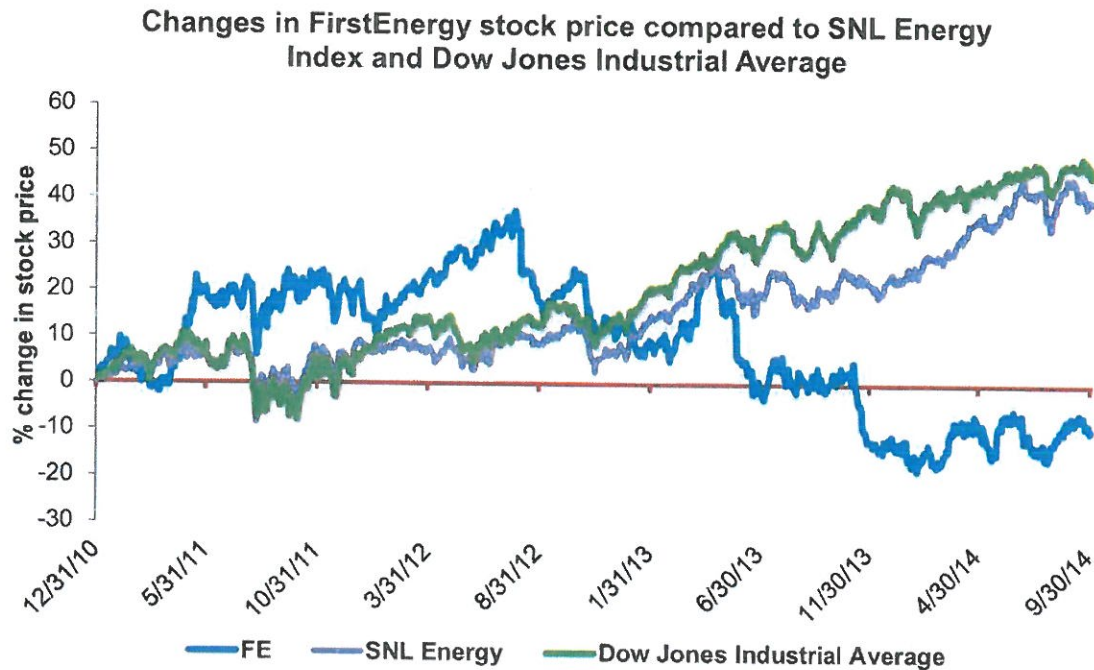
³¹ Edison Electric Institute, *Credit Ratings EEI Q2 2014 Financial Update*, (no date), p.1. (EEI CR Q2 2014)

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

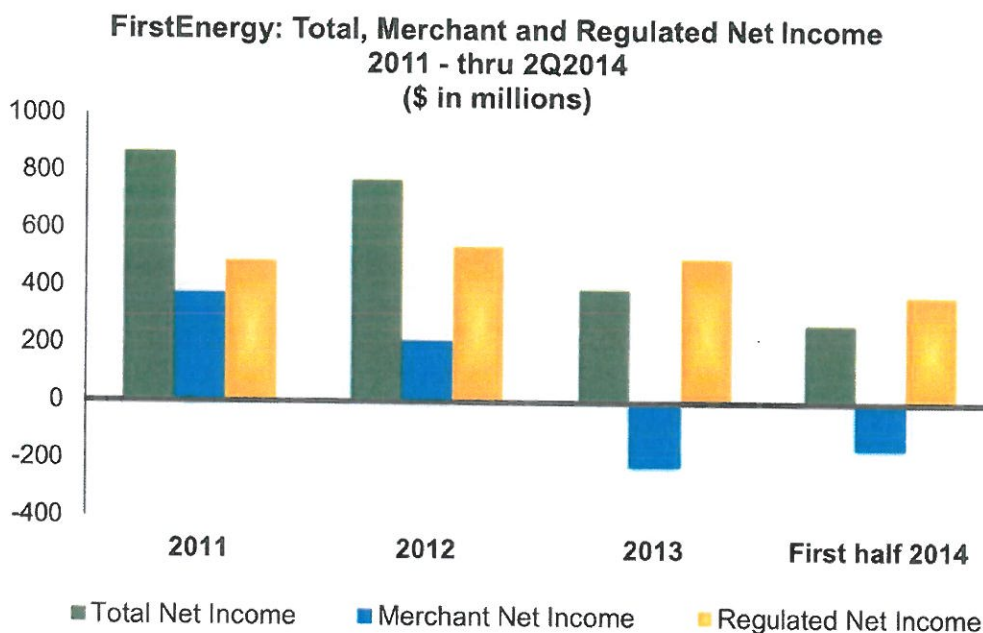
³⁵ Over a five year period FE stock price has declined by 13.7% while the Dow Jones Industrial Average and SNL Energy Index have increased by 99.7% and 88.03% respectively.

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/FinancialReview_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.

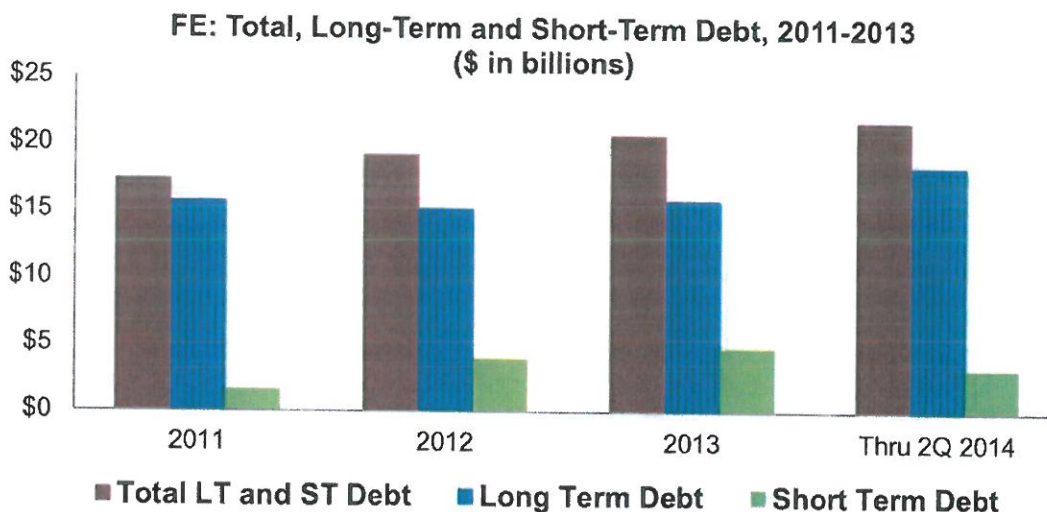
FE's overall decline in net income is driven by weak performance in the company's competitive, merchant fleet, which posted a loss in 2013 and is poised to lose money again in 2014. Although the merchant segment posted a positive net income in 2011, the gain was due in large measure to the sale of FirstEnergy's 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 & 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/FinancialReview_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	-0.6	-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>

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