



FirstEnergy Corporation

Vote Yes: Report on Carbon Asset Risk Due to Climate Change

Annual Meeting: May 17, 2016

SUMMARY

The U.S. electricity market is rapidly evolving. Utilities that own aging, heavily polluting coal plants are unable to compete with low-carbon, low cost renewables. Additionally, the burning of coal causes harm to public health and the global climate. Coal is the highest-carbon emitting power source in the U.S, so it is no surprise that regulations seeking to reign in the use of coal are becoming both more extensive, and costly. In recognition of the changing economics and regulatory risk related to coal, most U.S. utilities are rapidly retiring coal generation and replacing it with low carbon alternatives.

FirstEnergy, however, remains entrenched in its support of coal generation. The company recently created a lifeline to its antiquated coal-generation by pushing repeatedly for – and on its second try winning -- a customer financed “bail out”, now adopted by the Public Utility Commission of Ohio, which temporarily passes the costs of FirstEnergy’s uneconomic, costly, aged, and polluting coal generation on to customers.¹ The bailout will also revive the Sammis plant, the 41st most polluting coal plant in the U.S., which FirstEnergy idled in 2012 due to its uncompetitive economics.²

But for the bailout, these coal assets would likely have become stranded. Shareholders deserve to know how much of the rest of FirstEnergy’s fleet is at risk of stranding, and what the financial cost these potentially stranded assets represent. Shareholders urge a “Yes” vote on the resolution, which will bring much needed transparency to FirstEnergy’s climate change related carbon asset risk.

RESOLVE CLAUSE

Shareholders request that FirstEnergy prepare a report by September 2016, omitting proprietary information and at reasonable cost, quantifying the potential financial losses to the company associated with stranding of its coal generation facilities under a range of climate change driven regulation scenarios that mandate greenhouse gas reductions beyond those required by the Clean Power Plan.

RATIONALE FOR A YES VOTE

¹ Finnigan. “It Ain’t Over ‘Til It’s Over: Ohio Bailout Battle Marches On.” The Energy Collective, April 2016: <http://www.theenergycollective.com/john-finnigan/2375969/it-aint-over-til-its-over-ohio-bailout-battle-marches-on>

² Sammis idled: Smith. “Coal-Fired Plants Mothballed by Gas Glut”, Wall Street Journal, Sept 2012: <http://www.wsj.com/articles/SB10000872396390443696604577645713658834228>; Sammis America’s 41st Dirtiest Power Plant: Schneider, Boggs. “America’s Dirtiest Power Plants”, Environment America: Sept 2014: http://www.environmentamericacenter.org/sites/environment/files/reports/EA_Dirtiest_power_plants_scrn_0.pdf



1. FirstEnergy's coal fleet is highly exposed to stranded asset risk resulting from regulatory and market changes.

Quickly changing market and regulatory conditions are increasing the likelihood that FirstEnergy's coal assets will be stranded. In December 2015, at the 21st Conference of Parties held in Paris ("COP 21"), global governments agreed to establish policies to limit global temperature rise to 2 degrees Celsius, in order to avoid the catastrophic impacts of climate change.³ To achieve this global warming limit, which is required for ongoing life on earth, experts estimate that 80% of the world's coal reserves would need to remain unburned.⁴ Because approximately 33% of U.S. carbon emissions are created by the power sector, a 2 degree Celsius limit will require significant carbon reductions from U.S. utilities including FirstEnergy, the tenth largest utility in the U.S.⁵

Domestically, a number of new regulations designed to protect the public from climate change, air pollution, and water pollution, have been enacted or are forthcoming. These include, among others, the Clean Power Plan; the Mercury and Air Toxics Standard (MATS); the Regional Haze Rule; the Cross-State Pollution Rule; coal ash regulation; cooling water entrainment regulation.⁶ Regulations like these can create compliance costs that eliminate the profitability of dirty coal plants, which then require investment in new pollution control equipment. The MATS regulations alone required billions of dollars of environmental compliance costs across the U.S. coal fleet to keep toxic Mercury from harming Americans.⁷ In comments to the EPA, a group of utilities, including FirstEnergy, claimed coal plant regulation will "result in billions of dollars in stranded assets."⁸

Market forces have also increased the risk of U.S. coal asset stranding. Since coal's peak in 2007, U.S. coal consumption decreased 29% as of 2015, driven by competition from inexpensive natural gas and renewable energy resources.⁹ Indeed, the EIA reports that 173 coal plants are planned to be retired by 2019.¹⁰ In the first months of 2016, U.S. utilities in the Midwest retired 2,000 MW of coal.¹¹ As the U.S. moves on to new, low carbon, less expensive fuels, aging coal assets – especially those that have been

³ UN Climate Change Newsroom. "Historic Paris Agreement on Climate Change: 195 Nations Set Path to Keep Temperature Rise Well Below 2 Degrees Celsius", December 12, 2015. <http://newsroom.unfccc.int/unfccc-newsroom/finale-cop21/>

⁴ McGlade, Christophe, and Paul Ekins. "The geographical distribution of fossil fuels unused when limiting global warming to 2 [deg] C." *Nature* 517.7533 (2015): 187-190.

⁵ 80% by 2050: Hassol. "Emissions Reductions Needed to Stabilize Climate" Presidential Climate Action Project, 2011: <https://www.climatecommunication.org/wp-content/uploads/2011/08/presidentialaction.pdf>; FirstEnergy sixth largest utility: "Benchmarking Utility Air Emissions", Ceres, NRDC, 2015: <https://www.nrdc.org/sites/default/files/benchmarking-2015.pdf>

⁶ "Environmental Compliance", 2014 Ameren Integrated Resource Plan, p. 5-21, 2014: <https://q9u5x5a2.ssl.hwcdn.net/-/Media/Missouri-Site/Files/environment/renewables/irp/irp-chapter5.pdf?la=en>

⁷ Regulatory Impact Analysis for the Final Mercury and Air Toxics Standards, EPA, 2011, p. 3-31: <https://www3.epa.gov/ttnecas1/regdata/RIAs/matsriafinal.pdf>

⁸ Comment on Proposed Existing Source Performance Standards for Greenhouse Gas Emissions from Electrical Generating Units Docket EPA-HQ-OAR-2013-0602, Coalition for Innovative Climate Solutions, 2014:

⁹ Energy Information Administration. *Annual Energy Outlook*. Data Browser. <http://www.eia.gov/forecasts/aeo/data/browser/>

¹⁰ Energy Information Administration. *Planned Generating Capacity Changes*, by Energy Source, 2015-2019. Dec, 2014. http://www.eia.gov/electricity/annual/html/epa_04_05.html

¹¹ Matyi. "Midwest utilities retire more than 2,000 MW of coal-fired generation", Platts April 2016: <http://www.platts.com/latest-news/electric-power/louisville-kentucky/midwest-utilities-retire-more-than-2000-mw-of-21283280>



recently renovated with costly compliance equipment -- are at risk of stranding if their costs cannot be recovered ahead of their useful life.

Similarly, U.S. coal stocks have lost practically all value, with the U.S. Dow Jones Coal Index losing 93% of its value between July 2011 and July 2015.¹² The largest coal companies in the U.S., Peabody, Arch, and Alpha (and in the case of Peabody, the largest coal company in the world) are all bankrupt.¹³

Due to FirstEnergy's significant reliance on coal, momentum against coal amounts to momentum against FirstEnergy. FirstEnergy remains extremely coal intense. In 2013, FirstEnergy was the 6th largest consumer of coal of U.S. power producers and 65% of its generation was from coal. FirstEnergy falls well below the industry average for clean energy deployment with only 2.26% of its 2012 electricity sales coming from renewable energy, and comes in at 25th of 32 U.S. utilities assessed on renewable energy sales.¹⁴ Shareholders are concerned that FirstEnergy is going in the wrong direction. The nation as a whole has reduced coal consumption 18% between 2008 and 2013; in contrast, FirstEnergy increased coal use by 22% in the same period.¹⁵

2. FirstEnergy requires government support for its coal fleet.

Where FirstEnergy's peers are taking action to reduce their stranded asset risk by rapidly retiring coal assets to procure renewables, FirstEnergy is instead seeking government protection from market realities. As noted above, FirstEnergy pushed to pass the costs of expensive coal assets in Ohio on to its customers, telling press that its coal plants "just aren't making money in the open market".¹⁶ FirstEnergy's requests for Ohio to bailout its coal assets are not the only time FirstEnergy has sought state assistance with the costs of aging coal infrastructure. In 2015, FirstEnergy filed for and won a rate increase in West Virginia to address coal generation overcapacity FirstEnergy's speculative practices created.¹⁷ FirstEnergy has also advanced a bill in West Virginia, awaiting the Governor's signature, which would make it easier for it to pass on costs in between rate cases.¹⁸ FirstEnergy's apparent strategy of raising rates for customers to bail-out aged, polluting coal assets prolongs the life of its coal fleet at the expense of its competitiveness.

While regulators have historically approved rate increases for coal infrastructure, as the world moves forward to less expensive renewable energy, it is less likely regulators will be as amenable to coal going forward. Other state regulators have already acknowledged the absurdity of charging customers to

¹² Google Finance. *Dow Jones U.S. Coal Index*. Accessed April 14, 2016, <https://www.google.com/finance?q=INDEXDJX:DJUSCL>

¹³ Miller. "Peabody Energy Files for Chapter 11 Bankruptcy Protection", Wall Street Journal, April 2016; Miller. "Arch Coal Files for Bankruptcy", Wall Street Journal, January 2016: <http://www.wsj.com/articles/peabody-energy-files-for-chapter-11-protection-from-creditors-1460533760>; <http://www.wsj.com/articles/arch-coal-files-for-bankruptcy-1452500976>

¹⁴ "Benchmarking Utility Clean Energy Deployment", Ceres 2014, p.17: <http://www.ceres.org/resources/reports/benchmarking-utility-clean-energy-deployment-2014>

¹⁵ "Benchmarking Utility Air Emissions", Ceres 2015 & 2013; EIA, 2015 & 2013.

¹⁶ Barrett. "FirstEnergy Wants Regulators to Keep Its Coal Plants Alive" Bloomberg 2015: <http://www.bloomberg.com/news/articles/2015-08-27/firstenergy-wants-regulators-to-keep-its-coal-power-plants-alive>

¹⁷ Kunkel. "FirstEnergy's Scheme to Stick West Virginia Ratepayers With Speculative Risk Is Working", IEEFA, 2015: <http://ieefa.org/firstenergys-scheme-to-stick-ratepayers-with-its-speculative-risk-is-working-in-west-virginia/>

¹⁸ Powers. "West Virginia legislature passes bill encouraging coal-fired unit upgrades", Platts March 2016: <http://www.platts.com/latest-news/electric-power/birmingham-alabama/west-virginia-legislature-passes-bill-encouraging-21117201>



resuscitate dying coal plants. The New York Public Service Commission recently rejected a plan to repower a coal plant by passing on costs ratepayers; Mississippi has consistently delayed passing on spiraling costs of Southern Company's "Kemper" coal plant to ratepayers.¹⁹ Regulators are recognizing that they cannot justify exposing ratepayers to costs associated with companies' overreliance on high-polluting, expensive, uneconomic fuel sources. When regulators eventual tire of passing FirstEnergy's significant coal fleet costs to its customers, shareholders will be left to absorb the liabilities.

The billions of dollars that FirstEnergy is investing to upgrade aged, polluting coal plants required meet tightening pollution laws, and the resources FirstEnergy spends lobbying to recover coal costs from ratepayers, or lobbying for regulatory protections of coal, would all be better spent on "no-regrets" investments renewable energy and energy-efficiency. It is unclear why FirstEnergy insists on withholding such investment. Worse yet, FirstEnergy was significantly involved in the political action to block Ohio's energy efficiency and renewable energy laws, setting back not only the company but the community as a whole.²⁰ Shareowners should be very concerned that FirstEnergy has been not only resistant but antagonistic to low carbon generation options.

3. FirstEnergy lacks disclosure on stranded coal risk disclosures and does not provide critical information to shareholders.

With no disclosure quantifying the potential financial losses to the company associated with the stranded asset risk of its coal fleet, it is unclear whether FirstEnergy has evaluated the company's carbon asset risk at all. FirstEnergy claims the reporting requested by the proposal would be duplicative of its current reporting; this is not the case. FirstEnergy has not produced any public disclosure quantifying the financial risk of its coal asset to date.

Though FirstEnergy itself acknowledges that "... to the extent that new generation technologies are connected directly to load, bypassing the transmission and distribution systems, potential impacts could include decreased transmission and distribution revenues, stranded assets and increased uncertainty in load forecasting and integrated resource planning and could adversely affect our business and results of operations." in its 2015 10-K, no analysis quantifying the severity of this risk follows.²¹

CONCLUSION

FirstEnergy's comprehension of low carbon resources is underscored by a chart on its website describing its energy mix as 99% "clean, low emitting generation", which *inexplicably categorizes its coal plants as "clean and low emitting"*.²² The chart aptly illustrates just how removed FirstEnergy is from the reality of today's electricity market, which is moving aggressively away from coal and toward distributed,

¹⁹ NY: "Cayuga Power Plant to Close", Ithaca.com, February 2016: http://www.ithaca.com/news/cayuga-power-plant-to-close/article_8d9a2da8-da7c-11e5-b781-c753f7b8ea16.html; Kemper delayed prudency hearings: Mississippi Public Service Commission <http://watchdog.wpengine.netdna-cdn.com/wp-content/blogs.dir/1/files/2014/08/Kemper-Order-Aug-5-2014.pdf>

²⁰ Montgomery. "Connecting the Dots: How Fossil Fuel Interests Are Funding State RPS Battles", Greentech Media May 2014: <http://www.greentechmedia.com/articles/read/connecting-the-dots-how-fossil-fuel-front-groups-are-behind-states-rps-batt>; <http://www.utilitydive.com/news/firstenergy-moves-to-end-ohio-energy-efficiency-mandate-for-industrials/313265/>

²¹ FirstEnergy 2015 10k p33: <https://www.firstenergycorp.com/content/dam/investor/files/10-K/2015-10K.pdf>

²² FirstEnergy Generation System, 2015: https://www.firstenergycorp.com/content/fecorp/about/generation_system.html



renewable energy. It also reinforces FirstEnergy's alarming support of coal despite escalating regulatory and market risk, and the attendant ongoing investment in its aged, polluting, uncompetitive, risky, costly coal fleet. FirstEnergy's generally poor stock performance in the last five years suggests that the market recognizes these problems.²³ Until FirstEnergy quantifies and discloses its carbon asset risk and the financial viability of its coal fleet, shareholders have no way of assessing FirstEnergy's forward looking prospects.

²³ Google Finance, FirstEnergy (FE), 5 year view: <http://www.google.com/finance?q=NYSE:FE>