



ICCR Investor Packet for Electric Utility Clean Energy Campaign: 2017

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Background:

Power plants account for 30 percent of U.S. carbon dioxide emissions – the largest share of any sector of the economy. But by all accounts, the electric utility industry has begun a fundamental transformation, perhaps the greatest in its history. A combination of cost-competitive renewable energy sources, dropping costs of storage technology, decentralization of production, regulation, and slower demand growth is changing the industry landscape. According to Bloomberg New Energy Finance, the [economic reality](#) is that “renewables are now among the cheapest sources of electricity. Wind and solar were the [biggest sources](#) of power [added](#) to U.S. grids three years running, becoming key sources of [jobs](#) in rural America.”¹

1) Renewable Energy

The cost of solar panels and solar energy has dropped precipitously in the past several years, with more declines on the horizon. Many analysts predict that solar power will continue to drop in price until it is the cheapest form of power in many national markets.

2) Decentralized Production

Distributed generation refers to power generation at the point of consumption. Generating power on-site, rather than centrally, eliminates the cost, complexity, interdependencies, and inefficiencies associated with long-distance transmission and

¹ Republican Cracks Emerge in Trump's Coal-Heavy Energy Plan; Joe Ryan; April 24, 2017, <https://www.bloomberg.com/news/articles/2017-04-23/republican-cracks-emerging-in-trump-s-coal-heavy-energy-plan>

distribution. Like distributed computing (i.e. the PC) and distributed telephony (i.e. the mobile phone), distributed generation shifts control to the consumer. Solar has become a popular distributed generation option, and with panel prices continuing to drop and battery storage improving, more people are looking to produce their own power.

3) Regulation

In the US, the Clean Power Plan, mandated in 2015, the reduction of carbon emissions nationally. Although it has been revoked by the Trump Administration, the basis for the regulation, the Supreme Court decision deeming CO₂ a pollutant to be regulated by the EPA under the Clean Air Act, is still in place. The impact of this is yet to be seen. But what remains true is that the falling costs of renewables, and the low cost of natural gas has made a return to coal-fired power plants a non-starter. In addition, with the Paris Agreement in place internationally, we can expect to see more regulation of GHG emissions, making investments in carbon-heavy and polluting electricity sources more difficult to justify.

4) Demand

While more people around the world are using electricity, and powering more items than ever, there have been major advances in energy efficiency, and global electricity demand has remained relatively flat in the past few years. Projections are for that trend to continue – far lower than the historic growth patterns that utilities have traditionally counted on for planning. In addition, large corporations are increasingly shifting to electricity powered by renewable energy, and intensifying efforts to reduce overall demand, sending important signals to electric utilities, which have traditionally supplied corporate energy.

While the electric utility industry is clearly amidst fundamental change, many utilities feel threatened by this change and are fighting it. In the South and Midwest, a significant percentage of utilities still depend on coal-fired power plants to generate their electricity. As natural gas and renewable energy have dropped in cost, many of these coal-fired plants are comparatively expensive to operate. To make up the difference, utilities have petitioned to increase fixed-rate fees for all customers, essentially subsidizing the operation of the most polluting power plants.

These high monthly charges disproportionately burden low-income, low-use customers, increasing the percentage of their income that is spent on energy. This fee structure also results in lower incentives for people to conserve energy, because their bills will not vary as much based on usage.

ICCR members have the opportunity to engage with utilities to assess how they are adapting (or could adapt) their business model to enable increased deployment of low-carbon electricity generation as a means to reduce societal greenhouse gas emissions, make renewable energy more accessible to low-income customers, and protect shareholder value.

Resources

1. Reports and Studies:

The Top 25 U.S. Electric Utilities: Climate Change, Corporate Governance and Politics, from the Investor Responsibility Research Center Institute ([IRRCi](#)) and the Sustainable Investments Institute ([SI2](#)).

NAACP Reports on Electric Utilities:

The NAACP released a report in 2014 that evaluates energy policy in all 50 states from a civil rights perspective. [“Just Energy Policies: Reducing Pollution and Creating Jobs,”](#) is an analysis of each state’s energy sector policies based on environmental and economic impacts.

Engaging With Public Utility/Service Commissions Guidance: a guidance document for communities on how to work with state Public Utilities/Public Service Commissions; Download the Document [here](#).

Black & Veatch 2016 Strategic Directions: U.S. Smart City/Smart Utility Report

<http://bv.com/reports/2016/smart-cities>

[Electric Slide—Transitioning to a Low-Carbon Future](#); series of papers from Walden Asset Management on the transition of electric utilities to a low carbon future.

2. Articles:

Where the Poor Spend More Than 10 Percent of Their Income on Energy,
<http://www.theatlantic.com/business/archive/2016/06/energy-poverty-low-income-households/486197/>

Community Solar Programs Can Reach Millions of People—If Utilities Design and Market Them Right;

<http://members.iccr.org/document/community-solar-programs-can-reach-millions-people%E2%80%94if-utilities-design-and-market-them-right>

Electric Vehicles are an Opportunity for Both Utilities and Companies;

<http://members.iccr.org/document/electric-vehicles-are-opportunity-both-utilities-and-companies>

Electric Utilities Prepare for a Grid Dominated by Renewable Energy;

http://www.greentechmedia.com/articles/read/the-electric-industry-prepares-for-a-renewable-energy-dominant-grid?utm_source=Daily&utm_medium=Newsletter&utm_campaign=GTMDaily

3. Other Resources:

Utility Dive: <http://www.utilitydive.com/> Sign up for a daily email with great coverage of topics related to electric utilities: smart grid tech, clean energy, regulation, generation, and much more.

InvestSnips; Provides useful information about companies traded on the US stock exchanges <http://investsnips.com/complete-list-of-utilities-listed-on-u-s-exchanges/>

2017 Electric Utilities Engagements

Electric Utility Company	Scope 1 or 2 Top Emitter	Action Category	Investor Lead	Filing Deadline	Action Type
AES Corporation	Scope 1 #6	Business Plan for 2C Warming Scenario	Mercy Investment Services	11/7/16	Resolution Vote: 40.1%
Ameren		Business Plan for 2C Warming Scenario	Mercy Investment Services	11/14/16	Resolution
American Electric Power Company	Scope 1 #1	Carbon Asset Risk	As You Sow Foundation		Dialogue
DTE Energy	Scope 1 #12	Business Plan for 2C Warming Scenario	NY State; ICCR Co-filers	11/16/16	Resolution
Dominion Resources, Inc.	Scope 1 #15	Business Plan for 2C Warming Scenario	NY State; ICCR Co-filers	11/22/16	Resolution
Dominion Resources, Inc.	<u>Scope 1 #15</u>	Carbon Asset Risk - Coal Ash	As You Sow Foundation	11/22/16	Resolution
Duke	Scope 1 #2	Business Plan for 2C Warming Scenario	NY State; ICCR Co-filer	11/23/16	Resolution
Duke	Scope 1 #2	Public Health Risks of Coal Pollution	As You Sow Foundation		Dialogue
Duke	Scope 1 #2	Water Impacts of Business Operations	Mercy Investment Services		Dialogue
Entergy	Scope 1 #13	Business Plan for 2C Warming Scenario	As You Sow Foundation	11/22/16	Resolution

Exelon	<u>Scope 2 #9</u>	Business Plan for 2C Warming Scenario	Unitarian Universalist Association		Dialogue
First Energy		Business Plan for 2C Warming Scenario	As You Sow Foundation	12/2/16	Resolution
NextEra Energy	Scope 1 #9	Business Plan for 2C Warming Scenario	ECUSA and Trinity Health		Dialogue
NiSource Inc.		Business Plan for 2C Warming Scenario	Everence Financial		Dialogue
NRG Energy, Inc.	<u>Scope 1 #5</u>	Stranded Assets Due to Climate Change	As You Sow Foundation	11/16/16	Resolution
Southern Company	Scope 1 #4	Business Plan for 2C Warming Scenario	Sisters of St. Dominic of Caldwell, NJ	12/9/16	Resolution
Southern Company	Scope 1 #4	Carbon Asset Risk - Coal Ash	As You Sow Foundation	12/9/16	Resolution
Xcel Energy, Inc.	<u>Scope 1 #8</u>	Business Plan for 2C Warming Scenario	Unitarian Universalist Association	12/5/16	Resolution
Xcel Energy, Inc.	<u>Scope 1 #8</u>	Carbon Asset Risk - Coal Ash	As You Sow Foundation	12/5/16	Resolution successfully withdrawn

Utilities Resolution Example

WHEREAS:

In 2015 195 countries negotiated the Paris Agreement with the goal of keeping global temperature rise well below 2 degrees Celsius above pre-industrial levels. To meet this goal the International Energy Agency (IEA) estimates that the global average carbon intensity of electricity production will need to drop by 90%. The U.S. Environmental Protection Agency's Clean Power Plan is a first step in limiting climate change from the power sector; however, additional reductions in power sector emissions will be required for the U.S. to meet its obligations under the Paris Agreement.

Detailed analyses by the IEA, the International Council on Clean Transportation (ICCT), and the Climate Action Tracker indicate that electrification of transport will play a critical role in achieving the necessary greenhouse gas reductions by 2050.

In June 2016, the credit rating agency Moody's indicated that they would begin to analyze carbon transition risk based on scenarios consistent with the Paris Agreement, and noted the high carbon risk exposure of the power sector.

Rapid expansion of low carbon technologies including distributed solar, battery storage, grid modernization, energy efficiency and electric vehicles provide significant challenges for utility business models but also opportunities for growth. Many large corporations are actively seeking to increase their use of renewable energy, providing a significant market opportunity for forward-thinking utilities.

[INSERT COMPANY SPECIFIC CARBON EXPOSURE DATA HERE]

[THE COMPANY] has not provided details regarding how the 2 degree challenge is being accounted for in capital investment decisions, predictions of future demand, plans to provide affordable and reliable energy for all of its ratepayers, or plans to manage the risks from climate change regulations or market changes due to low carbon technologies. Such information would allow investors to better assess the risks that climate change regulations may pose to the company and shareholder value.

RESOLVED: Shareholders request that [COMPANY NAME] issue a report by December 30, 2017, at reasonable cost and omitting proprietary information, on the Company's strategy for aligning its business plan with the well below 2 degree Celsius goal of the Paris Agreement, while continuing to provide safe, affordable and reliable energy.

Supporting Statement: This report could include:

- The impact of a below 2 degree scenario on [COMPANY NAME'S] current business model; and
- Plans to integrate technological, regulatory and business model innovations such as electric vehicle infrastructure, distributed energy sources (storage and generation), demand response, smart grid technologies, and customer energy efficiency as well as corresponding revenue models and rate designs.