Technical Conference:
Impacts of COVID-19 on the Energy Industry

Panel 4: Access to Capital - Credit, Liquidity, and Return on Equity

Panelist Biographies and Statements

Docket No. AD20-17-000
July 8-9, 2020

Impacts of COVID-19 on the Energy Industry

Panel 4: Access to Capital - Credit, Liquidity, and Return on Equity

Panelist Biographies and Statements:

- Roger Collanton, Vice President and General Counsel, California Independent System Operator, on behalf of the ISO/RTO Council
- Kimberly Dang, President, Kinder Morgan
- Mauricio Gutierrez, President and Chief Executive Officer, NRG
- Charles Jones, Chief Executive Officer and Member of Board of Directors, FirstEnergy Corp.
- Philip Moeller, Executive Vice President – Business Operations Group and Regulatory Affairs, Edison Electric Institute
- Antonio P. Smyth, Senior Vice President – Transmission Ventures Strategy & Policy, American Electric Power
- Christine Tezak, Managing Director, Clearview Energy Partners
- Steve Young, Executive Vice President and Chief Financial Officer, Duke Energy

Roger Collanton
Vice President, General Counsel,
Chief Compliance Officer and Corporate Secretary
CAISO

Roger Collanton is the Vice President, General Counsel, Chief Compliance Officer and Corporate Secretary. Mr. Collanton serves as the chief legal officer and representative for the corporation in legal and regulatory matters and oversees all corporate compliance, governance and internal audit functions. Mr. Collanton also advises the Board of Governors on the application of federal, state and local law and provides guidance and advice on governance and corporate issues.

Prior to joining the ISO in January 2009, Mr. Collanton was a partner in the law firm of Morrison & Forester, LLP, in San Francisco where he represented clients in energy litigation matters, constitutional litigation, consumer class action defense, and various other business litigation matters.

Mr. Collanton is a member of the California Bar and has appeared in state and federal courts throughout California and the United States. He received a law degree from the University of California, Boalt Hall School of Law in 1995.

Mr. Collanton received his Bachelor of Science in Business Administration from San Francisco State University in 1986. He became a Certified Public Accountant in 1987. Prior to law school, Mr. Collanton practiced as a certified public accountant with Price Waterhouse and was a corporate controller for a privately-held company.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Impacts of COVID-19 on the Energy Industry	Docket No. AD20-17-000

Prepared Statement of Roger Collanton

My name Roger Collanton. I serve as Vice President and General Counsel for the California Independent System Operator Corporation (CAISO). My remarks address issues identified in Panel 4 - Access to Capital - Credit, Liquidity, and Return on Equity.

The CAISO operates wholesale electricity markets for the benefit of approximately 80 percent of electric demand in California and a small portion of electric demand in the state of Nevada. We serve as the market operator for the Western Energy Imbalance Market, which provides real-time market services to participating balancing authorities throughout the Western Interconnection. As RC West, we also serve as the Reliability Coordinator for 42 balancing authorities and transmission operators in the western United States.

The CAISO is a member of the ISO/RTO Council (IRC), which comprises nine independent system operators (ISOs) and regional transmission operates (RTOs) that operate transmission systems with the objective of ensuring affordable, reliable, and sustainable power. The Commission regulates six of the IRC member ISOs and RTOs, which operate under tariffs and agreements to administer the generation and transmission of electricity in the interest of two-thirds of North America's ratepayers.

The COVID-19 pandemic has resulted in increased attention on the financial health of wholesale electricity market participants as well as ISO/RTO credit policies and procedures. These policies and procedures are necessary to ensure confidence in wholesale electricity markets as a source of reasonably priced supplies of electricity. ISOs/RTOs conduct financial reviews of market participants in accordance with standards and procedures for determining creditworthiness in order to protect market participants from undue exposure to default risk by other market participants. Market participants must continually satisfy minimum participation requirements and fully collateralize all outstanding liabilities. In other words, market participants cannot sell and buy energy and ancillary services without adequate collateral such as a letter a credit or posting financial security. As market participants' outstanding liabilities increase so do their collateral requirements. This practice creates assurances that market participants receive payment for their sales of energy and ancillary services even in the event of a market participant default albeit with some potential delay. Under the CAISO's policies, market participants may also qualify for an amount of unsecured collateral based upon their ongoing adherence to certain financial health measures. However, congestion revenue rights holders must hold secured collateral.

Based on its financial reviews, the CAISO has not observed increased credit risk among our market participants arising from the COVID-19 pandemic whether they are investor-owned utilities, electric service providers, municipal entities, electric generators, or financial marketers. To assess credit risk, the CAISO relies on information from financial credit reporting agencies, the general/financial/energy press, as well as information provided by its market participants. Examples of events that could reflect

increased credit risk may include negative reports from credit rating agencies, increases in expected default frequencies, declining tangible net worth or net assets, and difficulty in responding to collateral demands and market payments.

With respect to credit issues associated with the COVID-19 pandemic, liquidity is the most immediate concern. COVID-19 has caused some disruption in the financial markets, which could affect liquidity sources for market participants to cover their positions in the wholesale electricity markets. In addition, some market participants' revenue streams may be impacted by declining loads and non-payment for retail services. To date, we have seen no impact to financial transactions occurring in the CAISO markets nor any liquidity event that could trigger a material change in the financial condition of our market participants. This does not mean we can relax our monitoring of credit risk. We must remain even more vigilant during these uncertain times.

Major risk factors we monitor include credit downgrades, or increasing expected default frequencies, that could lead to lower amounts of unsecured credit limits and, ultimately, no allowance for unsecured credit if credit ratings fall beneath investment grade. This would force a market participant to post only secured forms of collateral for all outstanding liabilities. Based upon our experience with market participants, the sudden loss of unsecured credit would not create a material change to a market participant's access to wholesale electricity markets. The majority of the market participants qualifying for unsecured credit use only a fraction of their limit to handle the day-to-day variances in their outstanding liabilities. They choose to use secured forms of collateral for the majority of their collateral posting requirements. However, if a

market participant's declining financial health has led to the elimination of unsecured credit limits in wholesale electricity markets, it has likely led to elimination of unsecured credit in other markets, which could begin to pose a liquidity problem.

As the COVID-19 pandemic continues to create cascading economic impacts, increased monitoring by ISOs/RTOs of financial data remains a prudent step. This review may include exogenous economic factors such as unemployment rates, business failures, or the level of unpaid balances by utility retail customers. The Commission has recently provided increased discretion to certain ISOs/RTOs that allow each ISO/RTO to impose higher credit requirements on market participants that may pose a higher credit risk. In part, this discretion will allow these ISOs/RTOs to assess the positions of market participants that may not operate physical assets and may create asymmetric risks between themselves and the rest of the market. Among other next steps, the Commission may wish to conduct outreach to state regulatory commissions that oversee the financial health of load serving entities regarding the importance of maintaining credit protections for well-functioning wholesale electricity markets. I look forward to answering your questions.

Respectfully submitted,

By: *<u>/s/ Roger E. Collanton</u>*

Roger E. Collanton
Vice President, General Counsel
California Independent System
Operator Corporation

Dated: June 30, 2020

CERTIFICATE OF SERVICE

I hereby certify that I have served the foregoing document upon the parties listed on the official service list in the above-referenced proceeding, in accordance with the requirements of Rule 2010 of the Commission's Rules of Practice and Procedure (18 C.F.R. § 385.2010).

Dated at Folsom, California, this 30th day of June, 2020.

/s/ Anna Pascuzzo

Anna Pascuzzo

Kimberly Dang
President
Kinder Morgan

Ms. Dang is President and a member of the Office of the Chairman of Kinder Morgan, Inc., one of the largest energy infrastructure companies in North America. She is also a member of Kinder Morgan, Inc.'s Board of Directors.

Ms. Dang joined Kinder Morgan in 2001 as Director of Investor Relations and has served as Vice President of Investor Relations, Treasurer, and Chief Financial Officer. She joined the Office of the Chairman in 2014 and became President in 2018. As President, Ms. Dang plays a key role in the company's strategic and policy decisions, day-to-day management, and capital allocation decisions.

Prior to joining Kinder Morgan, Ms. Dang spent six years at Goldman Sachs working in the company's real estate investment area. She also worked in Washington, D.C., as a legislative assistant for Congressman Jack Fields and in Austin, Texas, for a venture capital firm.
Ms. Dang holds an MBA from the J.L. Kellogg Graduate School of Management at Northwestern University and a bachelor's degree in accounting from Texas A&M University.

Kinder Morgan owns an interest in or operates 83,000 miles of pipelines and 152 terminals. The company's pipelines transport primarily natural gas, refined petroleum products, CO2 and crude oil and its terminals store, transfer and handle such products as gasoline, ethanol, coal, petroleum coke and steel.

FERC Technical Conference COVID 19
Kim Dang Opening Statement

INTRO. Thank you. I am Kim Dang, President of Kinder Morgan, Inc. We own and operate approximately 70,000 miles of natural gas pipelines, 1,200 miles of liquids pipelines, and one operational LNG import and export facility in the United States. Pipelines remain the safest, most environmentally friendly, and most efficient means of delivering natural gas, crude oil, NGLs, and refined petroleum products to end-users and are a critical part of our current and future national energy infrastructure. Thank you for inviting me to participate on this panel to share Kinder Morgan's experience navigating credit, liquidity, and investor confidence during the COVID-19 pandemic and corresponding collapse in global demand for oil and LNG.

COVID-19. Since March of this year, most Kinder Morgan employees have been working remotely. The primary exceptions are those employees physically operating our critical infrastructure and those in the field maintaining and repairing that infrastructure. For those employees, we are adhering to guidance from the CDC, including temperature screening, deep cleanings for facilities, social distancing, and masks. As we continue to deliver critical services to the country, our commitments have remained clear:

- Keep our family, coworkers, and communities safe, and
- Continue operating our critical assets to deliver the energy across the country that our communities, businesses, and first responders require.

Here is what we are seeing in our FERC-regulated businesses.

NATURAL GAS PIPELINES. For natural gas, industrial demand, exports to Mexico, and LNG have decreased, but demand from local distribution companies and power generators have remained relatively steady and seasonal.

Creditworthiness. One of our primary challenges in the current environment is working with our distressed shippers and ensuring our pipelines are sufficiently secured so we can continue to attract capital and do business. Under FERC's current credit policies (which places an arbitrary three-month cap on credit support for all but new expansion capacity), we cannot sufficiently secure the multi-year risk that we have on many contracts on our system. We applaud FERC's orders declaring concurrent jurisdiction over transportation agreements that form the bedrock of our industry and ability to conduct business. In addition to protecting its concurrent jurisdiction, we believe FERC should exercise its exclusive jurisdiction over the credit support available to pipelines ahead of bankruptcies. Rather than being limited to a one-size-fits-all, three-month cap, pipelines and customers should be able to freely negotiate credit requirements in a not unduly discriminatory manner based on a particular shipper's unique creditworthiness and the market. If the Commission is unwilling to allow that, then it should exercise its concurrent jurisdiction to prevent contract rejection in cases where the pipeline was constrained by the arbitrary three-month cap.

Pipeline Construction. Natural gas pipelines continue to experience significant challenges constructing needed infrastructure due to issues and requirements that preexisted—but are exacerbated by—the current economic recession.

For example, there is a small but vocal and well-financed group of individuals and organizations across the country willing to use any and all venues to disrupt, delay, and stop pipeline projects regardless of those projects' significant environmental and economic benefits. As you know, linear infrastructure is uniquely vulnerable to these attacks without a strong lead agency like FERC to ensure that pipelines required by the public interest get certificated and constructed. Clear rules, efficient reviews, and reasonable schedules with predictable finality are

all contemplated by the Natural Gas Act and are more crucial now than ever for our projects, our customers, affected landowners with whom we work closely, and other stakeholders.

Instant Rule. I commend FERC on its efforts recently to act more quickly on issuing certificates and requests for rehearing; however, the pipeline industry was caught off guard by FERC's recent "Instant Rule" that bars construction pending rehearing but does not implement any binding guidance or timeframe for when FERC will issue an order on rehearing. Pipeline projects were thrown into limbo by this rule. Now that the DC Circuit has confirmed in *Allegheny Defense Project v. FERC* that the Commission cannot issue tolling orders that serve solely to override the "deemed-denied" provision in the Natural Gas Act, Kinder Morgan encourages the Commission to withdraw the Instant Rule or at the very least modify it through a formal notice and comment rulemaking process, and coordinate that rule with any Commission actions in light of the court's decision. Uncertainty and delay increase project development costs significantly and can make needed projects untenable, especially now when pipelines and our customers face severe headwinds from the pandemic and the current economic crisis.

REFINED PRODUCTS. For Kinder Morgan's refined product pipelines, overall volumes in April were down approximately 41%. Since then, volumes have stabilized for gasoline and diesel, but jet fuel remains very weak. We expect continued improvement as the economy recovers, but there are many impacts of this current pandemic that remain uncertain. If new outbreaks and economic contractions continue or if there are permanent changes in the way we work—more telecommuting and less air travel—there could be permanent volumetric decreases in a range of refined products across our pipelines. Here, as with our natural gas pipelines, we also face opposition, challenges and uncertainties that preexisted COVID-19 and the economic downturn, but that are exacerbated by the current situation.

Five Year Review. For example, the Commission recently began its five year review of the annual index for liquids pipelines. At a time when demand for petroleum products is being significantly impacted by the current pandemic, it is especially important in this review for the Commission to ensure that the approved inflation adjustment for the next five years reflects the actual inflation being experienced by liquids pipelines. We encourage the Commission to differentiate between policy changes that do not reflect inflationary cost changes and the actual inflation faced by the liquids pipeline industry.

RISK AND RETURN. For both gas and liquids pipelines, the growing risks and uncertainties dictate the returns investors require, and therefore must be reflected in the returns our interstate pipelines can earn across our portfolio. We are in a competitive industry, we do not operate in a franchise territory, and we are not guaranteed recovery of our cost of capital to build and operate pipelines. We happily compete and thrive in this environment, but our greatest risk remains our regulatory risks. Investors simply will not continue to invest in a pipeline portfolio where FERC cuts our returns on performing assets while we cannot recover our cost of service on underperforming assets.

Several weeks ago, the Commission issued a policy statement on return on equity for oil and gas pipelines. We believe the Commission correctly stressed flexibility throughout the policy statement. But the Commission should go further by:

1. Accepting more representative and rational proxy groups for natural gas pipelines through the use of beta to identify candidates of comparable risk;
2. Supporting returns through the ratemaking process for both natural gas and liquids pipelines that enables them to raise market capital to develop needed energy infrastructure;

3. Ensuring that its return decisions properly consider the anomalous economic circumstances caused by COVID 19, including the increased credit risk faced by pipelines; and
4. Developing a return component for heavily depreciated pipelines based on avoided replacement cost to extend the use of existing pipelines.

CONCLUSION. We want to continue to partner with FERC, our customers, and other stakeholders in the communities where we live, work, and operate our assets. I am encouraged by FERC's efforts yesterday and today in organizing and holding this technical conference to talk with the regulated community in these difficult times. I encourage FERC to make additional, long-term adjustments in its oversight of the industry to help pipeline companies navigate this challenging environment now and in the long run. Thank you and I look forward to your questions and this discussion.

Mauricio Gutierrez
President and Chief Executive Officer
NRG

Mauricio Gutierrez is President and CEO of NRG Energy, America's premier competitive power company. Mauricio joined NRG in 2004 and helped build it from a regional wholesale generation business into a national, Fortune 500 energy company. Previously he held the positions of Chief Operating Officer for five years and Executive Vice President of commercial operations overseeing all commodities trading. Mauricio has held several senior positions at energy merchant Dynegy and consulting firm DTP in Mexico City.

Mauricio is leading the company's transformation to a customer-focused organization that empowers consumers with personalized energy choices. As CEO, Mauricio rightsized business operations through aggressive costs reductions and a $3.2 billion divestiture program, reduced corporate debt by 80% and increased the dividend by 10x. Mauricio has also overseen a 30% growth in retail customers as the company continues to advance its consumer strategy.

Under his tenure, NRG implemented a comprehensive sustainability framework into the business strategy through best-in-class governance and transparency. NRG was the first power Company to report under the Sustainability Standards Accounting Board (SASB) requirements in 2016. It was also one of the first to have Science Based carbon reductions targets and in 2019, the company accelerated its carbon reduction goals to align with the 1.5 degree Celsius scenario and achieve net zero by 2050. NRG has been recognized as one of the best places to work and best employers for diversity by Forbes.

Mauricio is a member of the Business Roundtable and serves on the boards of NRG Energy, Electric Power Supply Association (EPSA), Chief Executives for Corporate Purpose (CECP) and Drexel University. He holds a bachelor's degree in industrial engineering from the Universidad Panamericana and two master's degrees - one in mineral economics from the Colorado School of Mines and one in petroleum economics from the French Petroleum Institute.

UNITED STATES OF AMERICA
BEFORE
THE FEDERAL ENERGY REGULATORY COMMISSION

Impacts of COVID-19 on the Energy Industry	)	Docket No. AD20-17-000

STATEMENT OF MAURICIO GUTIERREZ
CEO OF NRG ENERGY, INC.

Mr. Chairman and Commissioners, I appreciate the opportunity to address the Technical Conference that the Commission has convened on the impacts of COVID-19 on the energy industry.[1] From the beginning of the COVID-19 pandemic, NRG Energy, Inc. ("NRG")[2] has taken aggressive steps to keep our employees safe and healthy while providing continuous service to our customers. Beginning in mid-March, we successfully moved approximately 90% of our in-office workforce to remote status, with an additional 5% moving to remote work by the end of April. Our plants, real-time desks, and portions of our customer care team continued to report to their designated locations while adhering to stringent safety protocols. As you know, the power industry is part of the critical infrastructure of our country, and I am glad to share that we were able to maintain full operations throughout the crisis by protecting the safety and well-being of our employees.

[1] This statement is being filed for the record on June 30, 2020, in advance of the July 8-9, 2020, technical conference.

[2] NRG is a Fortune 500 power company that generates and retails electricity in the United States and Canada. We have nearly 23,000 MWs of generation capacity and we serve more than 3.7 million residential, small business, and commercial and industrial customers through our diverse portfolio of retail brands.

Over the last several years, my team and I have worked tirelessly to improve our company's financial and risk profile to establish a more stable business platform and assure our investors of our ability to weather challenging economic conditions. In particular, over the last 5 years, we have streamlined and rebalanced our portfolio by selling non-core businesses and reduced our total debt by 70%, or almost $14 billion. We took these steps not because it was easy, and not because it was the cheapest way to earn a short-term profit for our shareholders—but because it was the right long-term decision for all of our stakeholders. When the COVID-19 pandemic struck, we relied on our strengthened financial position to ensure we had sufficient liquidity to continue serving our customers and operating our power plants without interruption. This was made possible by our diversified sources of liquidity, which allowed us to avoid both short-term market disruptions and higher financing costs.

As a competitive producer and retailer of energy, we are subject to losses and increased costs that result from COVID-19. We are not allowed by state or federal regulation to record so-called "Regulatory Assets" on our books[3] to offset COVID-19 losses, and we have no ability to defer losses on the assumption that regulation will subsequently reimburse us. That is fair. As a company that serves the wider economy, we expect to feel its ups and its downs. All firms in this sector should expect that.

COVID-19 has been a human tragedy at a massive scale, and it is not yet over. By contrast, while the pandemic had an impact on the electric-power sector, I do not expect it to be long-lasting. Customers unable to pay their electricity bills are fewer than expected. Demand has

[3] FERC Account 182.3. Many state-regulated utilities have been authorized to create "regulatory assets" to capture their losses, with the assumption that their retail customers ultimately will reimburse them.

started to rebound, and we remain optimistic. The electric-power sector does not require any extraordinary intervention by the Commission as a result of the pandemic.

As commissioners know, the firms and transactions you regulate are commercially sophisticated. There is a universe of financial instruments available to them to hedge risk. *Ad hoc* intervention by the Commission risks amplifying the moral hazards already present in the industry, which have been created by large incumbent firms that believe that each time their profits are not high enough, there is a state legislature just around the corner waiting to bail them out. The Commission should not be party to this sad reality—instead, it should be doing what it can to push back on it and regulating in the national interest.

In many places the Commission regulates, it has used competitive markets to fulfill its mandate to set just and reasonable rates. We operate extensively in those markets. In them, our revenues depend on our ability to compete against our peers and to earn our customers with compelling products and services. We do not ask the Commission to establish a return on our investment. We expect the market to set an appropriate return. If the market's results do not meet our return requirements, we will not invest.

What is important to us is the efficient regulation of those markets, which have been established to clear demand for the products we sell. That means the timely resolution of contested proceedings, the Commission's consistent regulation across markets, and the Commission's rejection of special pleadings that seek favorable treatment for particular market participants. The Commission could do nothing more important at this time than pursuing its caseload in an efficient manner. The Commission should also ensure that the market operators who implement the Commission's orders do so in an expeditious fashion. More than any *ad hoc*

measures the Commission could adopt, consistent and timely regulation of markets will support access to capital on reasonable terms in the electric-power sector.

The Commission does set prices directly for transmission, and I hope the Commission is cognizant of two things before it considers adjustments to ratemaking policy in response to the COVID-19 pandemic and economic downturn. First, investors in the power sector have a choice of where to invest their capital. If the Commission is too generous to price-regulated utilities, it will diminish the willingness of investors (or raise the cost of capital) to invest in our business, which relies on the competitive market to set prices. This is especially profound where a price-regulated entity or its affiliate are in competition with us, a non-price-regulated entity.

Second, the Commission's competition policy has driven down energy prices and collared returns for those of us in the power-generation business. For example, in ISO-New England, market clearing prices for energy have fallen 51% since 2004, the first full year the ISO operated with centralized dispatch. However, an opposite trend has occurred with transmission rates, which have risen 650% over that same period.[4] Now may be an appropriate time to apply the principles of the competitive energy marketplace to transmission in order to ensure business discipline as transmission investment needs arise.

Finally, the Commission has asked whether exposure to retail risks will cause disruptions in the industry. Approximately two-thirds of our retail customers are in Texas. In the competitive retail market of Texas, it is Retail Electric Providers ("REPs"), not utilities, who are responsible for billing customers and requesting that nonpaying customers be disconnected. As a leading REP, we stepped up before any governmental requirement and voluntarily provided payment plans and extensions, in addition to suspending all disconnections, because we knew customers

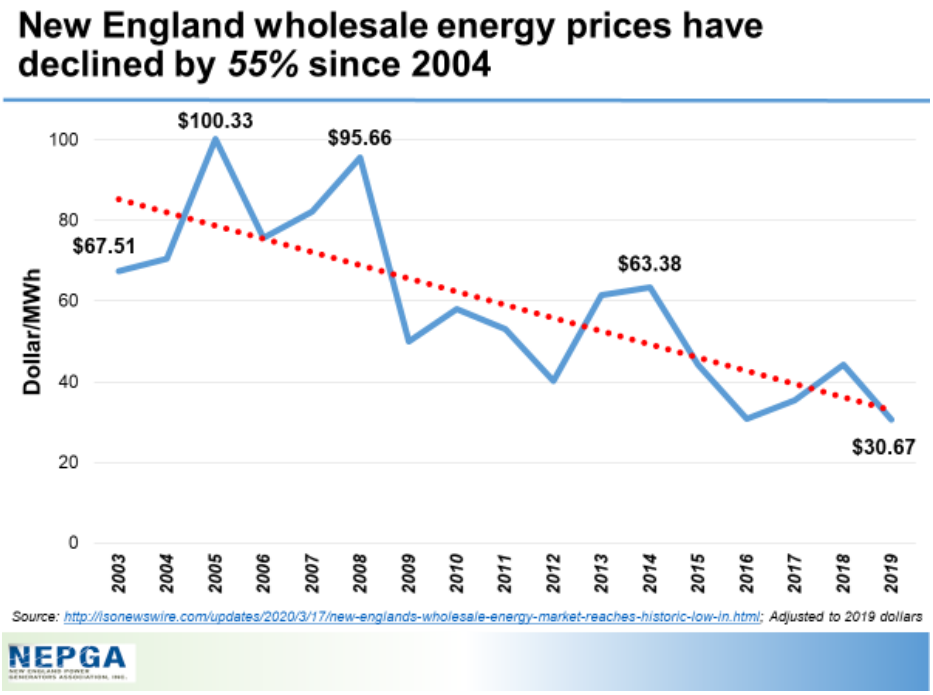
[4] See Appendix A

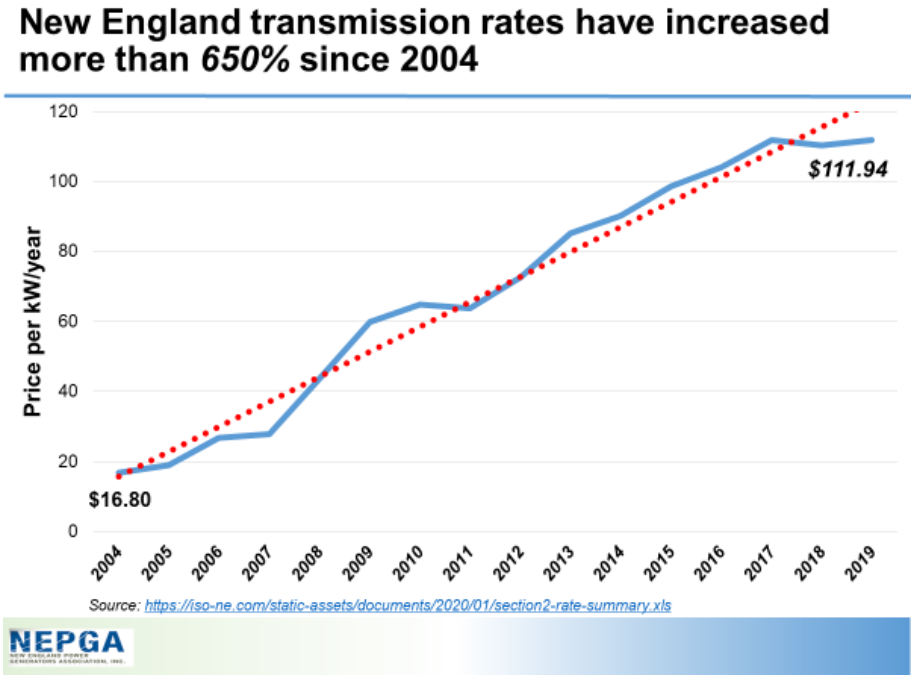
needed relief. Our community support does not end at the energy services we provide. On April 1, we announced a donation of $2 million in support of people on the front line of the COVID-19 pandemic, including funding and safety equipment for first responders, financial support for municipal funds that help small businesses, and a grant for teachers directed by our employees to the schools and projects in their communities.

The Public Utility Commission of Texas also took action to ensure consistency across the retail competitive market, requiring the cessation of all disconnections to customers experiencing financial hardship due to COVID-19. The PUCT also established an Electricity Relief Program ("ERP") that helps pay for a part of customers' bills if they cannot afford to do so. These ERP payments (which cover delivery charges, and also energy charges at a rate of $0.04 per kilowatt-hour) do not make REPs whole. Again, we expect to participate in the ups and downs of the wider economy. As this Commission continues its work, it should not divorce companies' returns from the economic realities of Americans' everyday lives.

Appendix A

Wholesale energy price vs. transmission rate trends over time, based on ISO-NE data.





Charles Jones
Chief Executive Officer and Member of Board of Directors
FirstEnergy Corp.

Charles Jones is President, CEO and director of FirstEnergy since January 1, 2015. He was Executive Vice President and President, FirstEnergy Utilities throughout 2014, Senior Vice President and President, FirstEnergy Utilities from 2010 to 2011, and President of FirstEnergy's utility subsidiaries from 2010 through 2014. He also serves as a director of many other subsidiaries of the Company.

Jones received an undergraduate degree in electrical engineering from The University of Akron. He also attended the United States Naval Academy and was a member of the Institute of Electrical and Electronics Engineers. He completed the Reactor Technology Course for Utility Executives at the Massachusetts Institute of Technology and the Public Utility Executive Program at the University of Michigan. He has had an extensive career, at Ohio Edison Company and later FirstEnergy Corp., and has held various executive leadership positions, most recently Executive Vice President and President of FirstEnergy Utilities, and currently President and CEO. With this vast experience, Jones brings to the Board an extraordinary understanding of the inner workings of the public utilities industry and FirstEnergy.

Charles E. Jones
Chief Executive Officer, FirstEnergy
Written Introductory Remarks as Filed with FERC
AD20-17 - FERC Technical Conference
Panel 4: Access to Capital - Credit, Liquidity, and ROE
July 9, 2020

Chairman Chatterjee and Commissioners Glick, McNamee and Danly, thank you for hosting this important conference to discuss COVID-19's impact on the energy industry.

2020 has been quite a year – so far. No one could have foreseen what has happened to our country. The U.S. economy was shuttered in less than three weeks. That was unimaginable. Our country was then upended by horrifying images of racial discrimination and violence. I want to associate myself and FirstEnergy with Chairman Chatterjee's comments at the start of FERC's last open meeting. We condemn these acts. They have no place in our society and never will in our company. We stand with our employees, customers and communities in strengthening our commitment to diversity, inclusion and social responsibility. We must strive to make our country a better place now and for future generations.

This afternoon, I'll begin by touching on FirstEnergy's response to COVID-19. Then, I'll turn to the immediate need to address the aging bulk electric system, the need for access to capital, investment and a compensatory return on equity, and finally the importance of getting asset management right.

As we've continued to provide the energy our customers and communities need during this health emergency, my first priority has been to help keep our employees, their families and our customers safe.

We successfully transitioned over 7,000 employees – more than half of our workforce – to work from home. For our employees unable to work remotely, we've implemented preventive measures recommended by the CDC and other medical experts to keep them safe on the job.

We continue to adjust as needed to protect our employees and the public, while continuing to serve our customers. We recognize that some customers have had a hard time paying their bills and appreciate the efforts of the state commissions to work with the utilities on mechanisms that allow us to balance financial viability with maintaining service.

Our response to COVID has required careful planning and consistent communication on everyone's part, and I'm proud of our entire team for the resiliency they've shown and the great job they've done over the past few months. I'm especially proud of our utility employees, who have continued to do their jobs in the field, including restoring power quickly and safely to customers after a series of recent storms – and all while following our established precautions for minimizing the spread of this virus.

We're going to continue to put health and safety first and do what's necessary to keep the lights on for our customers throughout this ongoing crisis. That includes investing in and maintaining our vast transmission system. FirstEnergy owns one of the largest transmission systems in PJM with approximately 24,500 miles of lines connecting the Midwest and Mid-Atlantic regions.

As we all know, the transmission system is the backbone of the nation's electric grid. Ensuring that infrastructure remains up-to-date and in top condition is critical to keeping safe, reliable power flowing to customers around the clock. Over the past few decades, however, there's been a lack of investment in the bulk electric system. As a result, transmission owners are now facing an urgent need to replace widespread aging infrastructure in order to avoid putting reliability at risk.

In PJM, two-thirds of all transmission assets in the region are more than 40 years old and approximately half of those assets are over 50 years old. At FirstEnergy, about one-third of our transmission line miles have already exceeded their 60-year useful life. The age and condition of the transmission system in the PJM region poses a significant risk to reliability. That's why a central component of our *Energizing the Future* program is focused on modernizing and strengthening the system by replacing aging transmission lines and equipment to enhance reliability for our customers.

These infrastructure investments are particularly critical now as our industry faces a rapidly changing energy mix, marked by smaller, distributed generating sources. As centralized, baseload sources like coal and nuclear generation retire and are replaced by more renewables, it's crucial that the transmission system is prepared to handle intermittent generating sources and more fluctuation in output.

I have a serious concern that without access to capital, these transmission projects cannot be undertaken. Financial markets have long been concerned about the uncertainty created by the lack of a long-term and durable ROE policy. The complications brought about by COVID-19 only compound this situation. It is critically important for FERC to remove that uncertainty and give investors confidence that utilities will have an opportunity to earn reasonable returns on their transmission investments. While I will not go into specifics, recent FERC orders are a step in the right direction, but there is more work to be done to establish ROEs that are sufficient enough to attract necessary and sustainable investments in the bulk electric system – investments that not only benefit customers by improving reliability, resiliency and security, but can also help fuel economic recovery from COVID-19. If there was ever a time when we needed immediate FERC action to stimulate investment, it is now.

In addition, transmission owners' ability to manage our own assets and plan much-needed transmission projects is equally important. We've faced claims that some of our transmission projects are non-essential and discretionary. It doesn't help that "supplemental projects" is a misleading term that creates the perception that we're overspending and making unnecessary

investments in our transmission system. Nothing can be further from the truth. Those who suggest these projects are non-essential either don't carry the responsibility to serve customers or have in mind commercial interests and opportunities, rather than grid reliability.

A good analogy to help dispel that myth is homeownership. Say you've got an old roof that's leaking, and it's over 40 years old, like most PJM transmission assets. You can keep patching it, or you can replace the roof and preserve the integrity of the house. If you don't replace the aging roof and it fails, then you don't just have a roof problem anymore; you've got floor damage and foundation issues, too. That's what we're trying to avoid on our transmission system. We're replacing deteriorating assets before they fail in order to preserve the structural integrity and reliability of the whole system.

And like homeowners, who are best positioned to manage their own homes, transmission owners are best positioned to understand the condition of their assets and determine the need for maintenance, replacement and improvement. Asset management is a living, breathing, ever-changing process, and it's transmission owners who operate their systems every day and carry the legacy knowledge required to make decisions that impact the performance of the electric grid. It's essential that we continue to depend on their expertise in asset management and cost-effective transmission planning.

At FirstEnergy, our average cost on these supplemental projects is $1.5 million, and we use a competitive process for labor, equipment and construction to maintain cost effectiveness and ensure projects have customer value proposition at the forefront.

In addition, although these projects are determined by transmission owners, they do not lack oversight or transparency. There are robust review processes in place at the RTO, FERC and state levels. PJM employs an exhaustive review process and provides opportunity for stakeholders to comment on system needs and proposed plans. FERC's annual formula rate process also provides opportunity for stakeholders to carefully review cost recovery details. FirstEnergy routinely meets with stakeholders to review the project plans and solicit input on the needs of our customers.

The transmission system continues to provide reliable service for customers during the COVID-19 pandemic – including for critical care facilities, large and small businesses, and people temporarily working from home. Now more than ever, our focus should be the continued provision of safe, reliable transmission service. To enable that, we need to concentrate on regulatory treatments and policies that can help ensure access to capital, sufficient cash flow, and adequate ROE and ROI for utilities. And, we've got to ensure that transmission owners continue to manage their own assets and plan projects essential to providing reliable service to customers.

Thank you.

Philip Moeller
Executive Vice President – Business Operations Group and Regulatory Affairs
Edison Electric Institute

The Honorable Philip D. Moeller is Executive Vice President, Business Operations Group and Regulatory Affairs at the Edison Electric Institute (EEI). EEI is the association that represents all of the nation's investor-owned electric companies.

Mr. Moeller has significant responsibility over a broad range of issues that affect the future structure of the electric power industry and new rules in evolving competitive markets. He has responsibility over the strategic areas of energy supply and finance, environment, energy delivery, energy services, federal and state regulatory issues, and international affairs.

EEI's member companies increasingly are focused on delivering innovative solutions that meet customers' changing expectations. Mr. Moeller works with EEI's member companies to identify policy solutions and business opportunities to better serve customers.

Prior to joining EEI in February 2016, Mr. Moeller served as a Commissioner on the Federal Energy Regulatory Commission (FERC), ending his tenure as the second-longest serving member of the Commission. In office from 2006 through 2015, Mr. Moeller ended his service as the only Senate-confirmed member of the federal government appointed by both President George W. Bush and President Barack Obama. At FERC, Mr. Moeller championed policies promoting improved wholesale electricity markets, increasing investment in electric transmission and natural gas pipeline infrastructure, and enhancing the coordination of the electric power and natural gas industries.

Earlier in his career, Mr. Moeller headed the Washington, D.C., office of Alliant Energy Corporation. He also served as a Senior Legislative Assistant for Energy Policy to U.S. Senator Slade Gorton (R-WA), and as the Staff Coordinator of the Washington State Senate Energy and Telecommunications Committee in Olympia, Washington.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Impacts of COVID-19 on the Energy Industry) Docket No. AD20-17-000

Statement of Philip D. Moeller
Executive Vice-President, Edison Electric Institute
July 8-9, 2020 Technical Conference
Panel 4: Access to Capital – Credit, Liquidity and Return on Equity

Good Afternoon, I am Philip D. Moeller, Executive Vice-President at the Edison Electric Institute ("EEI"). I thank the Federal Energy Regulatory Commission ("Commission" or "FERC") for the opportunity to participate today and for providing a forum to discuss the impacts of the COVID-19 pandemic on the energy industry and the long-term impact on the entities regulated by the Commission. I am here today to discuss how the COVID-19 emergency has affected the ability of electric utilities to access capital and maintain financial stability for the benefit of customers.

First and foremost, we appreciate the Commission's recognition of the challenges that the electric industry faces during this unique time and its actions to afford public and regulated entities regulatory relief in response to the additional pressures placed on public utility resources during the COVID-19 emergency. EEI represents all investor-owned electric companies in the United States. Our members provide electricity for more than 220 million Americans, and operate in all 50 states and the District of Columbia. As a whole, the electric power industry supports more than seven million jobs in communities across the United States. EEI's members remain committed to providing affordable and reliable electricity to customers during and long after this pandemic.

The COVID-19 emergency has highlighted the importance of having regulatory policies in place that help support access to capital at affordable rates during non-emergency conditions so that the energy system is able to effectively operate during emergency conditions. The investments made to date have helped to ensure that we have had, and continue to have, a reliable and flexible system that enables hospitals and other critical facilities to operate reliably, while accommodating changing load patterns as many Americans work from home. Going forward, transmission investments will help fuel the economic recovery by supporting the creation of jobs and tax revenues. The COVID-19 emergency also has introduced new risks that could potentially impact access to capital. As noted in the Supplemental Notice, these risks include, but are not limited to, "decreased demand, lower commodity prices, reduced access to credit and reduced market liquidity, increased delinquencies, insolvent customers/unrecoverable defaults, lower and/or more volatile stock prices, construction delays, and lags in rate recovery."[1] EEI appreciates the opportunity to discuss these issues with the Commission.

Before discussing the specific impacts of the COVID-19 emergency, it is important to note that policies put in place when there is not an emergency are a key component of ensuring the health of the energy industry during emergency conditions. While all emergencies, including COVID-19, bring their own issues and challenges that must be addressed, as the old saying goes, an ounce of prevention is worth a pound of cure. This includes policies on Return on Equity ("ROE") and incentives for transmission infrastructure investment which enable transmission owners to attract the capital necessary to build the long-lived transmission assets necessary to ensure reliability and resilience of the energy grid as well as to transport electricity to consumers. It also includes having market policies in place that compensate generation resources for the

[1] *Impacts of COVID-19 on the Energy Industry*, Supplemental Notice of Technical Conference, Docket No. AD20-17-000 at 5 (June 5, 2020) ("Supplemental Notice").

attributes they provide to the system as well as policies to ensure that state-federal jurisdictional issues are addressed.

Moving to the Supplemental Notice, the Commission raises appropriate questions related to credit, liquidity, and return on equity.

1. Credit Issues

With respect to credit issues, two of the most acute risks from the COVID-19 emergency are growing delinquent and uncollectible customer accounts and decrease in demand in the near-term. Both directly impact the risk profile and the creditworthiness of the industry. While not new, these risks have increased during the COVID-19 emergency.

To assist customers, in March 2020, all EEI members voluntarily suspended disconnections due to non-payment. Given the challenges many households and businesses are facing during the emergency, EEI members also expanded their well-established programs designed to reach customers suffering hardships, inform them about payment assistance options, and help them find solutions to financial challenges they may be facing. EEI members are still, however, seeing increases in delinquent and uncollectible customer accounts and this trend is expected to continue in the upcoming summer months. States have been responsive to these issues. As of June 30, 2020, twenty-eight states and the District of Columbia have either a state commission order or staff proposal related to cost recovery that allow for deferral of bad debt, the creation of a regulatory asset, and/or the tracking of costs in connection to COVID-19.

Finally, as the country's most capital-intensive industry, electric companies rely on ready access to the capital markets at affordable rates which ultimately benefits customers. At the start of the emergency, as investors converted their holdings to cash, EEI members experienced a substantial decrease in market liquidity along with a surge in market volatility. Then, as the

result of immediate action by the Federal Reserve Board ("Fed") and the U.S. Treasury, and the fact that, unlike in 2008, the market reaction to the pandemic was not caused by an underlying credit crisis, the capital markets rebounded significantly beginning in April. This unprecedented level of monetary stimulus provided stability to the capital markets, allowing electric utilities to maintain access to the capital markets. Due to their ongoing operations and the availability of cost recovery mechanisms through the state public service commissions, EEI members have not been as negatively impacted as other industries. As a result, two of the three major credit rating agencies maintain a stable outlook for electric utilities. Notwithstanding some concern about companies operating with minimal financial cushions when combined with the risks of COVID-19 (e.g., persistent volatility in the equity markets, lower volumetric sales, delayed rate case filings, and higher bad debt expense), electric utilities are likely to sustain investment-grade credit ratings.

2. Liquidity and Access to Capital

Electric companies are dependent on investors for external sources of capital to build infrastructure. This ongoing reliance on capital market access is a risk, particularly during periods of financial market volatility. This is compounded by, among other things, continued and increasing capital expenditures that outpace internal cash flow generation, resulting in negative free cash flow.

Electric companies also need reliable access to short-term liquidity provided through the commercial paper ("CP") markets. For most utilities, CP is a critical source of cost-effective, working capital that facilitates critical payments such as payroll, income taxes, supplier payments, as well as to meet other operational needs. As a result of the emergency, the CP market initially encountered a disruption. Declining liquidity, fewer investors, and higher costs

made it much harder for Tier 2 issuers, which most utilities are, to sell their CP. On March 17, 2020, the Fed announced the establishment of a Commercial Paper Funding Facility ("CPFF") to support the flow of credit during the coronavirus outbreak. On March 24, 2020, EEI, the American Gas Association, and the National Association of Water Companies sent a letter to the Fed, the U.S. Treasury, and the Federal Reserve Banks of New York and Philadelphia urging them to expand the CPFF to bring greater liquidity to the Tier 2 CP market. On April 7, 2020, Chairman Chatterjee and Brandon Presley, President of the National Association of Regulatory Utility Commissioners ("NARUC"), sent a letter to the Chairman of the Fed in support of the March 24 request. The letter indicated that extending CPFF purchasing would be a constructive step toward ensuring a properly functioning, critically important short-term debt market during this challenging period as a utility's continued financial stability and ability to continue to support the country's essential infrastructure are supported by ready access to short-term debt.[2] EEI appreciates the Chairman's and the NARUC President's support and help on this important issue.

While a valuable tool, CP is backstopped by a revolving line of credit which generally reflects capital needs and seasonality in load. To address liquidity concerns, such as abrupt changes in load seen during the pandemic, electric companies also have financial alternatives to CP including short-term loans, drawing down revolving lines of credit with large banks or the issuance of debt and equity. Some utilities issued medium and-long term debt, albeit, at higher spreads to their recent trading levels. If issues persist going forward, some utilities may reduce their operations and maintenance, defer planned capital expenditures, or in some cases, cancel planned CAPEX or change their dividend policies, which could negatively impact their cost of

[2] Federal Energy Regulatory Commission, *FERC, NARUC Support Utility Industry's Needs for Credit Financing* (Apr. 7, 2020) https://www.ferc.gov/news-events/news/ferc-naruc-support-utility-industrys-needs-credit-financing

and access to capital. To date, we are not aware of significant delays in infrastructure projects as a result of the COVID-19 emergency.

3. Return on Equity and Rate Issues

Since March 2020, the Commission has recognized the financial and operational challenges facing electric utilities during this emergency and has taken proactive steps to provide the public and regulated entities relief from certain regulatory obligations during the national emergency related to the COVID-19 outbreak. In its Policy Statement on Business Continuity of Energy Infrastructure, the Commission indicated that:

> We understand that regulated entities may need to implement new procedures, update and/or suspend existing procedures, and take other measures to safeguard the business continuity of their systems. We are aware that such regulated entities may have questions about their ability to meet regulatory requirements and/or recover the expenses necessary if they take steps to safeguard the business continuity of their systems during the national emergency.[3]

EEI appreciates the Commission's recognition of the challenges that the electric power industry faces during this unique time and for its actions in affording regulatory relief, including on accounting issues. The Commission's Chief Accountant and his staff have been proactive in addressing accounting matters in light of the wide-ranging impacts of the COVID-19 emergency. While additional accounting guidance is not contemplated at this time, EEI appreciates the Commission's outreach and quick action when regulatory relief or guidance has been requested.

As related to ROE, EEI urges the Commission to continue to consider refinements to its ROE policy to develop a methodology that works in different market conditions, including the low-interest conditions that we see today. The Commission's policy should ensure that the ROE methodology results in base ROEs that are commensurate with returns on investments in other

[3] *Business Continuity of Energy Infrastructure*, 171 FERC ¶ 61,007 at P 1 (2020).

enterprises having corresponding risks, and that are sufficient to assure confidence in the financial soundness of the electric utility.[4] This will help ensure that electric utilities are able to raise the capital necessary for the proper discharge of their public duties to provide safe, reliable energy to their customers. EEI also supports the Commission's approach to revising its incentives policy to support robust transmission system development to meet future challenges and provide benefits to customers.

While the Commission currently is in the process of evaluating its ROE methodology through contested adjudicatory proceedings,[5] EEI would encourage the Commission to act in the generic proceeding in which the Commission issued a Notice of Inquiry ("NOI").[6] Changes are needed to the Commission's ROE policy and the NOI proceeding contains extensive record evidence from a variety of stakeholders that provides the Commission with a robust and recent record upon which to act. The Commission should act in this proceeding to provide clarity to the electric power industry, as a whole, regarding any revisions to and application of the Commission's base ROE methodology going forward.[7]

In addition, just and reasonable ROEs provide access to the capital necessary to allow utilities to invest not only in the physical infrastructure needed to reliably operate the grid, but also enables utilities to put in place appropriate internal mechanisms (i.e., business continuity plans, appropriately trained personnel and other resources) to safely respond to extreme

[4] *FPC v. Hope*, 320 U.S. 591, 603 (1944); *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n*, 262 U.S. 679, 693 (1923).

[5] *See, e.g.*, *Coakley v. Bangor Hydro-Elec. Co.*, 165 FERC ¶ 61,030 (2018); *Ass'n of Bus. Advocating Tariff Equity, et al. v. Midcontinent Indep. Sys. Operator, Inc*., Opinion No. 569, 169 FERC ¶ 61,129 (2019) .

[6] *Inquiry Regarding the Commission's Policy for Determining Return on Equity*, 166 FERC ¶ 61,207 (2019)

[7] *See, e.g.*, Motion for Leave to File Supplemental Comments and Supplemental Comments of the Edison Electric Institute, Docket No. PL19-4-000 (May 11, 2020).

situations, as has been the case during the COVID-19 emergency. Effective ROE policies will ensure this continues to be the case.

In conclusion, EEI appreciates the Commission convening this technical conference and the opportunity to participate. Overall, the industry has met the challenges of maintaining the reliability and resilience of the electric grid and ensuring that all Americans have the electricity that they need during this unprecedented shutdown of the economy coupled with a dramatic increase in teleworking. While the industry has not been immune to the economic challenges facing the United States as a result of the emergency, to date, electric utilities have been able to access capital markets and move forward with projects. EEI appreciates the Commission's willingness to provide regulatory relief as needed and our members will be working with their state commissions going forward to address cost recovery and other issues, including developing payment plans for customers who are struggling to pay their electric bills. The key lesson from this emergency is that it is essential for the Commission to ensure that regulatory policies are in place that support needed investment in the nation's energy infrastructure so that electric utilities can continue to provide reliable electric service during times of emergency.

Antonio P. Smyth
Senior Vice President – Transmission Ventures Strategy & Policy
American Electric Power

Antonio Smyth is Senior Vice President of Transmission Ventures, Strategy and Policy at American Electric Power, which owns and operates the largest electric transmission grid in North America, and is President of Transource Energy, AEP's competitive electric transmission subsidiary.

In his current role, Smyth leads asset strategy, federal regulatory and policy, finance, and commercial development activities for AEP's $20 billion electric transmission infrastructure business. Smyth is also responsible for project siting, outreach, right-of-way acquisition, and AEP's $4 billion investment in multiple electric transmission joint venture companies. In addition to his role in electric delivery, Smyth currently plays a key role in the development of AEP's regulated renewable energy projects.

Smyth has extensive experience in executive leadership in the energy business. Throughout the past 20 years, he has held positions of increasing responsibility at AEP in both the Columbus, Ohio headquarters and the London, U.K. offices. He has testified as an expert on electric industry matters before the Federal Energy Regulatory Commission and state energy regulatory commissions.

Prior to his current role, he led the development of AEP's transmission ventures business, which is responsible for the origination, ownership, and operation of several large-scale electric transmission infrastructure companies across the United States. Smyth has also served in key leadership roles in the strategic initiatives organization, which is responsible for corporate strategy and mergers and acquisitions, and in the corporate finance organization, which is responsible for debt and equity capital markets and rating agency activities.

Smyth currently serves on the board of Electric Transmission Texas, LLC, a $3 billion electric infrastructure joint venture between AEP and Berkshire Hathaway, and is Vice Chairman of the board of trustees of the Childhood League Center, Inc., a Columbus-based school committed to serving young children with developmental disabilities.

Smyth is a United States military veteran, and earned both a Bachelor of Arts in economics and a Master of Science in applied economics from The Ohio State University. He has also completed the executive program at the Fisher College of Business at The Ohio State University and director education training through the National Association of Corporate Directors.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Impacts of COVID-19 on the Energy Industry) Docket No. AD20-17-000

Opening Statement of Antonio Smyth
Senior Vice President for Transmission Ventures Strategy and Policy
American Electric Power Service Corporation

Chairman Chatterjee and Commissioners, thank you for the opportunity to participate in this important dialogue. My name is Antonio Smyth and I am the Senior Vice President for Transmission Ventures Strategy and Policy at American Electric Power Service Corporation.

American Electric Power ("AEP") is one of the largest electric utilities in the United States, serving more than 5.5 million customers in 11 states. AEP also owns the nation's largest electric transmission system, a more than 40,000-mile high voltage network that serves about 10 percent of the electricity demand in the Eastern Interconnection, and approximately 11 percent of the electricity demand in ERCOT.

The electric transmission grid in North America is considered the largest machine in the world. Our modern society depends on a reliable grid as an essential resource supporting the Nation's health, welfare and security. The power grid is at the heart of our systems for communications, finance, transportation, health care, food and water supply. The grid assures the basic needs of heating, cooling and lighting as well as powering all of our electronics. In short, we all expect and require electricity at the flip of a switch. Recent experience has demonstrated the foundational importance of having a power grid, and a power sector, that is robust and capable of serving customers in the face of unexpected stresses like the pandemic.

I will briefly address two issues. First, I will touch on what impacts the COVID-19 pandemic, and the resultant economic downturn, have had on the utility sector's ability to

finance and conduct utility operations. Second, I will identify key actions FERC can take to continue to support the electricity sector during these unusual times.

COVID-19 Impacts

The economic downturn caused by COVID-19, and resultant impacts on our load and our customers' ability to pay their bills, are the most acute pandemic-related financial risk factors AEP faces. Moreover, market volatility has returned in a significant manner.

Although AEP does not currently face liquidity issues at this time, at the beginning of the COVID-19 crisis, AEP and other utilities had to act outside of normal business course to ensure adequate liquidity. As a reaction to the lack of liquidity in the commercial paper markets at the onset of the crisis, AEP and a number of other utilities quickly entered into term loans to reduce reliance on the commercial paper to meet short-term funding needs. In March, AEP and other utilities had to cancel announced long-term debt issuances and instead approach the market at a later date.

We are currently managing around slowdowns in key supply chains as we continue work on capital investment projects for the benefit of our customers. So far, we have managed to mitigate significant grid project delays or financial strain due to delays of getting transmission projects into service and eligible for cost recovery. However, given load reductions and economic uncertainty, AEP has made revisions to certain operations and maintenance programs and capital investment plans as precautionary measures.

Total 2020 revised load estimates are down 3.4 percent. Moreover, more of our retail customers have had and will continue to have difficulty paying utility bills. State regulators have typically authorized deferral of incremental costs of "bad debt" through regulatory asset

mechanisms. Thus, we expect that these increased bad debt costs will be recovered on a deferred basis, but the timing of recovery is not yet known.

With respect to FERC-jurisdictional rates, AEP has transmission formula rates in place that are annually trued-up for changes in actual costs and loads. However, the volatility in the financial markets, the challenges posed by shifting demand, and uncertainty about the pace and shape of future economic recovery remain a significant threat for the sector.

FERC Policy Response

The Commission is properly focusing on how its policies can most effectively support the financial health and continued infrastructure investment capabilities of the electric utility sector during these unusual and difficult economic times. It is crucial that the Commission continue its work to ensure that its rate policies provide sufficient returns to support needed utility infrastructure investment.

Investment in transmission infrastructure benefits customers by ensuring reliable electric service and enabling lower energy market prices by reducing congestion. As made clear over recent months, a modern, resilient transmission grid is critical to maintaining reliable service to customers in the face of potential disruptions such as pandemics, weather events, and cyber and physical security threats, which could overlap. This infrastructure investment also supports jobs, tax revenues and the economy as the Nation works to recover from the economic downturn caused by the pandemic.

The Commission's ratemaking policies, and particularly its return on equity policies, play a critical role in supporting stable cash flows and credit ratings of utilities, which in turn enable robust grid infrastructure investment. Thus, the most important action the Commission can take to support to the electric utility sector in these difficult economic times is to ensure that returns

on equity are adequate for utilities to raise capital and maintain credit quality so they can continue to invest in vital grid infrastructure. This includes developing a sound base ROE policy that examines many factors, including both book- and market-based factors, to ensure resulting returns are not biased by volatile market conditions. Additionally, the Commission should continue its work to ensure incentive transmission rate policy and other Commission policies shape the grid investment environment in an effort to support the needed levels of transmission investment in spite of the current pandemic-related downturn. The Commission's pending proposals on reform of incentive transmission rate policies, and the recent commencement of an initiative to explore use of incentives to drive investment in enhanced cybersecurity, are both constructive efforts that can help ensure that needed transmission system investment remains a priority in these difficult economic times.

Utilities accept the risks that come with their obligation to serve, even during periods of declining load and increased nonpayment of bills like we have seen during the pandemic. Sound Commission ratemaking policies are particularly important at this time, as the electric utility sector works hard to provide critical services to the Nation in spite of the shocks to the economy.

Thank you for organizing this technical conference, and for inviting me to participate. I welcome your questions.

Christine Tezak
Managing Director
Clearview Energy Partners

Christine Tezak is a veteran energy analyst who leads ClearView's coverage of electricity markets, interstate pipelines, energy infrastructure and U.S. environmental policy. Her two decades of experience in electric utility and natural gas pipeline sectors enable her to craft prescient, timely and impactful analysis, particularly as energy and environmental issues have converged.

Prior to joining the Firm, Ms. Tezak was a senior research analyst at Robert W. Baird & Co. and a senior vice president with the Washington Research Group. She has testified before the Federal Energy Regulatory Commission and the U.S. House of Representatives.

Ms. Tezak served eight-terms as a board member, including as President, of the Washington, D.C.-based Women's Council on Energy & the Environment. She remains active in WCEE and is a member of the Natural Gas Roundtable.

Ms. Tezak holds a bachelor's degree in Russian from Boston College and an MBA in Finance from the George Washington University.

UNITED STATES OF AMERICA
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FEDERAL ENERGY REGULATORY COMMISSION

Impacts of COVID-19 on the Energy Industry Docket No. AD20-17-000

OPENING STATEMENT

CLEARVIEW ENERGY PARTNERS, LLC

(JULY 8, 2020)

ClearView Energy Partners, LLC, provides this opening statement for the technical conference regarding COVID-19 and the Energy Industry. Christine Tezak, Managing Director – Research was invited to participate on Day 2, Panel 4: System Operations and Planning Challenges.

ClearView Energy Partners, LLC thanks the Commission for its invitation to participate in today's technical conference. ClearView is an independent research firm based in Washington, D.C. Since 2009, we have identified and quantified non-fundamental energy risks for financial investors and corporate strategists. Our team of specialists relies on firsthand experience and proprietary models to examine the actors, criteria and inputs behind investment-altering outcomes. In providing advice to our institutional investor and corporate strategist clients, spreadsheet data provide our starting point. We attempt to narrow the universe of possible results by filtering economic catalysts through political constraints. We validate and build on early conclusions by actively vetting our ideas with decision-makers in public forums and via proprietary channels. We are analysts, not lobbyists, and we do not represent corporate or partisan interests in any fashion.

Reviewing the Commission's objectives for this panel, we focus our comments on two key areas: (1) return on equity (ROE) policies; and (2) the outlook we are observing for LNG export projects.

Market volatility, regulatory stability and equity returns

Regulatory consistency and continuity are critical through this unprecedented period of economic uncertainty. The Commission invites feedback on the question of whether it should be doing anything to support the ability of FERC-jurisdictional utilities to maintain healthy access to capital. We see many of the factors facing the energy infrastructure community as varying between its subsectors. We would caution that abrupt and/or interventionist policy

responses – no matter how well-intentioned – could have problematic or unintended consequences, necessitating further action and by extension uncertainty.

We anticipate a period of unusual market volatility as the capital markets attempt to digest the economic uncertainty faced by the United States and the world during a global pandemic. We have observed that regulatory policy stability helps energy infrastructure investors, as well as the credit rating agencies and the equity analysts advising them, to "look through" market volatility and focus on the fundamentals of the underlying businesses.

For electric distribution utilities and local gas distribution companies, the posture of state regulators regarding uncollectable accounts appears to be critical to the maintenance of credit ratings and the management of cash flows. Our observation is that states have been constructive in this area, and in most states the moratoria on service shut offs is being accompanied by the recognition that putting customers on payment plans may be a better financial outcome to securitizing significant amounts of unrecoverable debt as either regulatory liabilities or assets. Assuming this trend continues, then state-regulated utilities are likely to remain relatively healthy customers of FERC-jurisdictional entities. They are also likely to contribute positively to the overall outlook of holding companies that also provide FERC-jurisdictional wholesale services.

However, regulated entities are not the only relevant end-users. Commercial and industrial businesses are experiencing substantial economic disruption impacting their energy demands and – in some cases – their ability to pay. Similarly, the downdraft in energy commodity prices has already begun to push some producers into bankruptcy reorganization, impacting contractual arrangements on pipelines as the open dockets before the Commission indicate. Other panelists today are addressing these issues from their first-hand perspective.

The Commission has recently taken actions where it has declared it intends to continue to rely on market-based model to evaluate and set equity returns. Given the uncertainty facing multiple segments of the economy we have observed that the models the Commission relies have and are likely to continue to indicate lower required returns for electric utilities companies than for pipeline companies. We think this properly reflects the mix of the perceived stability in the rate structure and the end-users served. We would also suggest that this difference may not represent an *anomaly* that the Commission should rush to address, but the appropriate reflection of the risk in the underlying structures of the businesses and the nature of the customers they serve.

While it is true that electric transmission utilities compete for capital, investors' appetites are <u>not</u> uniform and investment trends change with market conditions. This group of entities has peers, and these higher credit peers are the most relevant examples of comparable risk and reward consistent with the principles of *Hope* and *Bluefield.* A "flight to quality" is a market *response* to economic stress that implies lower *relative* returns for the most stable businesses. In our view, if the Commission is committed to providing a stable regulatory environment, then

a commitment to market-based information is required. This includes recognition of the structurally lower interest rate environment that has existed since the 2007-2009 financial crisis, and how it is reflect in both higher and lower returns, as appropriate, in its models. Regulated entities have the ability to file for new rates (and customers to file complaints) as conditions change – but the approach should remain consistent.

In Figure 1, we illustrate how an evaluation of FERC's ROE policies applied to a broad national group of electric transmission companies has behaved over the last twelve months. This interval captures the adoption of the Commission's May 2020 revisions to its return on equity policies backdated to November 2019 and the last several months of the COVID-19 crisis. We offer the following conclusions:

- The median and midpoint values have not changed dramatically over the course of the last year, but they are lower. We also think that this is consistent with other capital market indicators.

    - The midpoints of our generic proxy group ranged between 8.5-9.2%, averaging 8.67% based on study period data from November 2019 to June 2020 under the Commission's new composite methodology (May 2020 revisions). This compares to our observed ranges under *Opinion 531* (study periods ending June 2014-October 2019) where mathematical midpoints (not adjusted midpoints) ranged from 8.40-10.91% and averaged 9.09%. For our study periods from December 2011 to the adoption of *Opinion 531*, midpoints ranged from 8.58-10.81% and averaged 9.65%.

    - Medians for the discounted cash flow (DCF) and Capital Asset Pricing Models (CAPM) have similarly remained fairly stable, ranging between 7.5-8.6% and averaging 7.86% in our study periods from November 2019 through June 2020. This compares to our observed ranges under *Opinion 531,* where the DCF-only median ranged from 7.88-8.99% and averaged 8.54%. For our study periods from December 2011 to the adoption of *Opinion 531*, the DCF-only median ranged from 8.66-9.13% and averaged 8.91%.

    - The broader interest rate environment shapes expectations for dividend paying stocks, such as electric utilities. The spread between Moody's BBB utility bonds and 10Y Treasuries suggests that the slightly lower ranges reflected in our ROE proxy group studies over the last year are consistent with recent capital market conditions and structurally low interest rates. The spread between these bonds between December 2012 and May 2014 was 283 bp. During the *Opinion 531* period, the spread averaged 234 bp. Since the adoption of the composite model in November 2019, the spread has averaged 218 bp, but we note that it widened significantly in May (248 bp) and June (262 bp) from its nadir in January and

February (~195 bp). In other words, if the interest rate spread continues to increase, we would expect the composite model results to follow them upward.

- We observe variation in the *width* of the range of results across all intervals. In late 2019, the changes the Commission to the ROE methodology resulted in a wider range of proxy group results compared to the DCF only. However, we would point out that the median and midpoint values remained within a narrow range through the first six months of 2020, notwithstanding the dizzying drop in the equity markets and their subsequent recovery to within reach of their levels at the beginning of the year.

- This consistency in observed returns suggests to us that the market believes this sector has been stable, is stable, and is likely to remain stable *relative to other sectors of the energy complex and the economy*. Therefore, a gap between the required returns for this sector and the returns of other higher risk energy and non-energy components of the economy may widen to the extent that the electric transmission and utility sector generally are considered to be lower risk.

In Figures 2 and 3 we present our ROE models for the natural gas and oil pipeline sectors, respectively. We do not have the same historical data for these models because natural gas pipeline rates are generally settled on a service-by-service basis for fixed intervals and not on the cost-plus formula basis that has become the norm for many electric transmission rates. Our models reflect the equally weighted CAPM and DCF analysis adopted by the Commission in the May 2020 *Policy Statement on Determining Return on Equity for Natural Gas and Oil Pipelines (Policy Statement on Pipeline ROEs)*. We would offer the following conclusions on this data.

- Our current model results indicate to us that investors are likely to require higher returns on investment for natural gas pipelines than they do for electric transmission companies. Weak commodity prices threaten the health of upstream natural gas producers holding transportation contracts. Lower levels of economic activity can reduce flows and some customers may permanently be lost. For natural gas pipelines, shipper and end-user mix could result in different outcomes for different assets.

- We see a similar, higher level of implied required return for our oil, gas liquids and refined product pipelines proxy group, also likely driven by concerns at both ends of the pipeline. Weak commodity prices pressure these producers, too. Demand remains lackluster from jet fuel consumption to gasoline. Total U.S. products supplied (the Energy Information Agency's terminology for demand) remains ~16% below year-ago levels through June.

- The proxy group challenges the Commission cited in its *Policy Statement on Pipeline ROEs* may be aggravated if companies become ineligible for proxy group inclusion because they suspend their dividends or distributions. In addition, several proxy group members have currently have negative 5Y Analysts' growth rates, which may be a

transient issue (we plan to reassess this after first quarter reporting concludes). We would generally exclude companies with negative growth rates from proxy groups. We draw the Commission's attention to this issue as it appears problematic this month for the DCF model for oil pipelines. The Commission has explained how its case-by-case basis policies to potentially relax proxy group criteria if needed in the *Policy Statement on Pipeline ROEs* and this may become relevant.

Aside from the COVID-19 pandemic-related issues that affect supply and demand for pipeline services, we view both the natural gas and liquids line sectors as facing greater longer-term growth risk compared to the electric sector that likely supports a higher cost of equity capital. The focus of many states on lowering the carbon emissions of their electric generation portfolios – and in some cases full decarbonization by a date certain – has called into question the longer-term growth rate for natural gas demand, and by extension natural gas pipeline infrastructure. Similarly, the growing interest in electrification of transportation to lower the greenhouse gas emissions in the economy more broadly challenges the long-term growth prospects of liquids pipelines. These two trends combined, however, do not appear to be negative for electric transmission investment, which appears to continue to be needed to accommodate new, lower carbon generation resources and potential incremental demand from transportation electrification.

COVID-19 demand drops and the LNG outlook

At the end of May, we estimated that global liquefaction capacity may only rise by a total of ~4 Bcf/d over the CY 2020-2022 interval, after having grown ~14 Bcf/d over the CY 2017-2019 interval, based on International Gas Union (IGU) *2020 World LNG Report* and the Energy Information Administration (EIA) data.

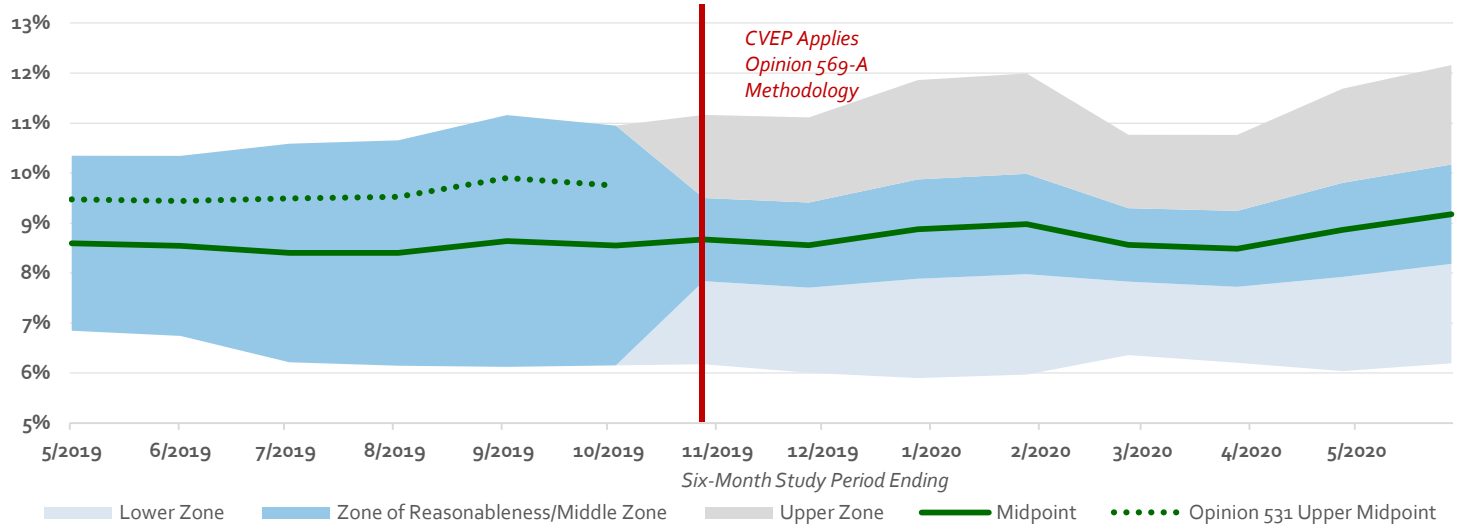
Through June 30, we have observed a number of global liquefaction projects delay a final investment decision (FID) since the outbreak of COVID-19. This currently includes 12.2 Bcf/d of capacity in the U.S. and 8.3 Bcf/d of international projects. At present, the U.S. project sponsors that have deferred their planned FID and in-service dates have pushed them out 12 months; but some international sponsors have adopted more open-ended delays (Figure 4).

Reuters reported in mid-June that 40-45 LNG cargoes scheduled for August loading in the U.S. were expected to be cancelled. This level would be in line with the 40-45 cargos cancelled for July loading. In June, Reuters reported between 20-30 cargoes were cancelled. Just as in the case of pipeline facilities, the creditworthiness and the financial health of the shippers and the demand outlook for the end use markets shape the risk horizon for individual LNG terminal operators and developers.

On behalf of ClearView Energy Partners, I thank you for this opportunity and I look forward to your questions.

(Referenced figures follow)

Figure 1 – Generic CVEP Proxy Group ROE Results (May 2019 – June 2020)



Note: To address the requirements of Section 206 of the *Federal Power Act,* FERC adopted an upfront test to check whether an existing ROE can be presumed to still be just and reasonable. To do this, FERC developed a "composite zone of reasonableness" by averaging the upper- and lower-end values of the range of the CAPM, DCF and RP for a relevant proxy group of utilities. It then divides the resulting range into thirds to assess utilities with lower-than-average, average, and above-average risk profiles and compares the subject company's ROE to those ranges.

6 Mo. Data Period Ending	Reasonableness Range		Lower Zone			Middle Zone			Upper Zone			Median	Low-End Test	High-End Test
	Low	Upper	Low	Midpoint	Upper	Low	Midpoint	Upper	Low	Midpoint	Upper			
Nov-19														
CAPM	6.00%	9.52%	6.00%	6.59%	7.17%	7.17%	7.76%	8.35%	8.35%	8.93%	9.52%	7.51%	5.47%	15.02%
DCF	5.32%	11.77%	5.32%	6.40%	7.47%	7.47%	8.55%	9.62%	9.62%	10.70%	11.77%	7.68%	5.47%	14.83%
RP	7.21%	12.20%	7.21%	8.04%	8.87%	8.87%	9.71%	10.54%	10.54%	11.37%	12.20%			
Result	6.18%	11.16%	6.18%	7.01%	7.84%	7.84%	**8.67%**	9.50%	9.50%	10.33%	11.16%			
Dec-19														
CAPM	5.57%	9.38%	5.57%	6.21%	6.84%	6.84%	7.48%	8.11%	8.11%	8.75%	9.38%	7.52%	5.37%	15.04%
DCF	5.33%	11.73%	5.33%	6.40%	7.46%	7.46%	8.53%	9.60%	9.60%	10.66%	11.73%	7.68%	5.37%	14.79%
RP	7.12%	12.23%	7.12%	7.97%	8.82%	8.82%	9.68%	10.53%	10.53%	11.38%	12.23%			
Result	6.01%	11.11%	6.01%	6.86%	7.71%	7.71%	**8.56%**	9.41%	9.41%	10.26%	11.11%			
Jan-20														
CAPM	5.71%	9.78%	5.71%	6.39%	7.07%	7.07%	7.75%	8.42%	8.42%	9.10%	9.78%	7.66%	5.38%	15.35%
DCF	5.33%	13.18%	5.33%	6.64%	7.95%	7.95%	9.26%	10.56%	10.56%	11.87%	13.18%	7.51%	5.38%	14.82%
RP	6.66%	12.62%	6.66%	7.65%	8.65%	8.65%	9.64%	10.63%	10.63%	11.63%	12.62%			
Result	5.90%	11.86%	5.90%	6.89%	7.89%	7.89%	**8.88%**	9.87%	9.87%	10.87%	11.86%			
Feb-20														
CAPM	5.92%	10.16%	5.92%	6.63%	7.33%	7.33%	8.04%	8.75%	8.75%	9.45%	10.16%	7.92%	5.44%	15.84%
DCF	5.37%	13.18%	5.37%	6.67%	7.97%	7.97%	9.28%	10.58%	10.58%	11.88%	13.18%	8.16%	5.44%	15.51%
RP	6.62%	12.64%	6.62%	7.62%	8.63%	8.63%	9.63%	10.63%	10.63%	11.64%	12.64%			
Result	5.97%	11.99%	5.97%	6.97%	7.98%	7.98%	**8.98%**	9.99%	9.99%	10.99%	11.99%			
Mar-20														
CAPM	5.88%	10.03%	5.88%	6.57%	7.26%	7.26%	7.96%	8.65%	8.65%	9.34%	10.03%	7.98%	5.52%	15.96%
DCF	6.01%	11.06%	6.01%	6.85%	7.69%	7.69%	8.54%	9.38%	9.38%	10.22%	11.06%	8.13%	5.52%	15.13%
RP	7.38%	11.94%	7.38%	8.14%	8.90%	8.90%	9.66%	10.42%	10.42%	11.18%	11.94%			
Result	6.42%	11.01%	6.42%	7.19%	7.95%	7.95%	**8.72%**	9.48%	9.48%	10.25%	11.01%			
Apr-20														
CAPM	5.67%	9.19%	5.67%	6.25%	6.84%	6.84%	7.43%	8.01%	8.01%	8.60%	9.19%	7.23%	5.34%	14.45%
DCF	5.60%	11.19%	5.60%	6.54%	7.47%	7.47%	8.40%	9.33%	9.33%	10.26%	11.19%	8.05%	5.34%	15.46%
RP	7.37%	11.93%	7.31%	8.07%	8.83%	8.83%	9.59%	10.35%	10.35%	11.11%	11.87%			
Result	6.21%	10.77%	6.19%	6.95%	7.71%	7.71%	**8.47%**	9.23%	9.23%	9.99%	10.75%			
May-20														
CAPM	5.54%	10.81%	5.54%	6.42%	7.30%	7.30%	8.17%	9.05%	9.05%	9.93%	10.81%	7.70%	5.32%	14.99%
DCF	5.75%	11.78%	5.75%	6.75%	7.76%	7.76%	8.76%	9.77%	9.77%	10.77%	11.78%	8.04%	5.32%	15.21%
RP	6.83%	12.48%	6.83%	7.77%	8.71%	8.71%	9.65%	10.59%	10.59%	11.54%	12.48%			
Result	6.04%	11.69%	6.04%	6.98%	7.92%	7.92%	**8.86%**	9.81%	9.81%	10.75%	11.69%			
Jun-20														
CAPM	6.10%	11.77%	6.10%	7.05%	7.99%	7.99%	8.94%	9.88%	9.88%	10.82%	11.77%	8.60%	5.26%	17.20%
DCF	5.83%	12.09%	5.83%	6.87%	7.92%	7.92%	8.96%	10.00%	10.00%	11.05%	12.09%	8.34%	5.26%	16.60%
RP	6.65%	12.62%	6.65%	7.65%	8.64%	8.64%	9.64%	10.63%	10.63%	11.63%	12.62%			
Result	6.20%	12.16%	6.20%	7.19%	8.18%	8.18%	**9.18%**	10.17%	10.17%	11.17%	12.16%			

Source: ClearView Energy Partners, LLC

Figure 2 – Generic CVEP Interstate Natural Gas Pipeline ROE Analysis (6-mo. Ending June 2020)

CAPM Analysis

Company	Market Return (R_M) Dividend Yield	Projected Growth	Cost of Equity	Risk-Free Rate	Risk Premium	Beta	Unadjusted Ke	Mkt Cap ($ MM)	Size Adjustment	Implied Cost of Equity
Enable Midstream	2.43%	7.29%	9.72%	1.62%	8.09%	1.65	14.98%	$2.04	1.54%	16.51%
Enbridge						0.95	9.31%	$61.60	-0.29%	9.02%
Kinder Morgan Inc.						1.30	12.14%	$34.31	-0.29%	11.86%
National Fuel Gas						0.85	8.50%	$3.81	1.26%	9.76%
TC Energy						1.10	10.52%	$40.28	-0.29%	10.24%
TC Pipeline LP						1.20	11.33%	$2.21	1.54%	12.87%
Williams						1.60	14.57%	$23.08	0.50%	15.07%

High-End Outlier Test	Excluded
Case-by-case, based on "illogical" or "anomalous" estimates.	0

Low-End Outlier Test	Excluded
Case-by-case, based on "illogical" or "anomalous" estimates.	0

All Results	
Median	11.86%
Low End	9.02%
High End	16.51%

DCF Analysis

Company	Long Term GDP[1]	6 Mo. Dividend Yield	IBES 5Y Analysts' Growth Rate	Weighted Avg. Growth Rate	Adjusted Dividend Yield	Implied Cost of Equity
Enable Midstream	*2.09%*	*25.76%*	*-23.90%*	*-15.24%*	*23.80%*	*8.56%*
Enbridge	4.18%	7.31%	5.49%	5.05%	7.50%	12.55%
Kinder Morgan Inc.	4.18%	6.39%	0.45%	1.69%	6.44%	8.14%
National Fuel Gas	4.18%	4.37%	8.50%	7.06%	4.52%	11.58%
TC Energy	4.18%	8.29%	5.81%	5.27%	8.51%	13.78%
TC Pipeline LP	*2.09%*	*8.02%*	*-1.40%*	*-0.24%*	*8.01%*	*7.77%*
Williams	4.18%	9.22%	1.98%	2.71%	9.35%	12.06%

High-End Outlier Test	Excluded
Case-by-case, based on "illogical" or "anomalous" estimates.	0

Low-End Outlier Test	Excluded
Case-by-case, based on "illogical" or "anomalous" estimates.	2

All Results	
Median	11.58%
Low End	7.77%
High End	13.78%

Outliers Removed[2]	
Median	12.06%
Low End	8.14%
High End	13.78%

Notes:
[1] In the 2008 *Policy Statement* on proxy groups for oil and gas pipelines (123 FERC ¶ 61,048), FERC determined that it was appropriate to discount the long-term GDP growth rate for master limited partnerships by 50%.
[2] Low end outliers: Enable Midstream and TC Pipeline LP for negative growth rate.

Composite Analysis

Study Period Ending	CAPM Analysis Low	CAPM Analysis Median	CAPM Analysis High	DCF Analysis Low	DCF Analysis Median	DCF Analysis High	Composite Low Avg.	Composite Median Avg.	Composite High Avg.
5/2020	9.20%	12.05%	16.77%	8.04%	11.78%	14.40%	8.62%	11.91%	15.58%
6/2020	9.02%	11.86%	16.51%	7.77%	12.06%	13.78%	8.40%	11.96%	15.14%

Source: ClearView Energy Partners, LLC

Figure 3 – Oil and Natural Gas Liquids ROE Analysis (6-mo. Ending June 2020)

CAPM Analysis

Company	Market Return (R_M) Dividend Yield	Projected Growth	Cost of Equity	Risk-Free Rate	Risk Premium	Beta	Unadjusted Ke	Mkt Cap ($ MM)	Size Adjustment	Implied Cost of Equity
Energy Transfer	2.43%	7.29%	9.72%	1.62%	8.09%	1.55	14.17%	$19.18	0.50%	14.67%
Enterprise Products Partners						1.10	10.52%	$39.72	-0.29%	10.24%
Magellan Midstream LP						1.20	11.33%	$9.72	0.84%	12.17%
MPLX LP						1.15	10.93%	$18.29	0.50%	11.43%
Pembina Pipeline Corp						1.55	14.17%	$14.75	0.50%	14.67%
Phillips 66						1.15	10.93%	$13.74	0.50%	11.43%
Phillips 66 Partners						1.30	12.14%	$31.40	-0.29%	11.86%
Plains All American						1.05	10.12%	$8.23	0.84%	10.96%

High-End Outlier Test	Excluded
Case-by-case, based on "illogical" or "anomalous" estimates.	0

Low-End Outlier Test	Excluded
Case-by-case, based on "illogical" or "anomalous" estimates.	0

All Results	
Median	11.86%
Low End	10.24%
High End	14.99%

DCF Analysis

Company	Long Term GDP[1]	6 Mo. Dividend Yield	IBES 5Y Analysts' Growth Rate	Weighted Avg. Growth Rate	Adjusted Dividend Yield	Implied Cost of Equity
Energy Transfer	*2.09%*	*15.53%*	*-4.34%*	*-2.20%*	*15.36%*	*13.16%*
Enterprise Products Partners	*2.09%*	*9.44%*	*-3.80%*	*-1.84%*	*9.35%*	*7.51%*
Magellan Midstream LP	2.09%	9.43%	-0.40%	0.43%	9.45%	9.88%
MPLX LP	2.09%	16.79%	4.51%	3.70%	17.10%	20.81%
Oneok	4.18%	10.92%	-0.09%	1.33%	10.99%	12.33%
Pembina Pipeline Corp	*4.18%*	*2.54%*	*24.50%*	*17.73%*	*2.76%*	*20.49%*
Phillips 66	*4.18%*	*5.09%*	*-6.00%*	*-2.61%*	*5.02%*	*2.42%*
Phillips 66 Partners	2.09%	8.35%	2.95%	2.66%	8.46%	11.13%
Plains All American	*2.09%*	*12.35%*	*-18.10%*	*-11.37%*	*11.65%*	*0.28%*

High-End Outlier Test	Excluded
Case-by-case, based on "illogical" or "anomalous" estimates.	1

Low-End Outlier Test	Excluded
Case-by-case, based on "illogical" or "anomalous" estimates.	4

All Results	
Median	11.13%
Low End	0.28%
High End	20.81%

Outliers Removed[2]	
Median	12.33%
Low End	9.88%
High End	20.81%

Notes:
[1] In the 2008 *Policy Statement* on proxy groups for oil and gas pipelines (123 FERC ¶ 61,048), FERC determined that it was appropriate to discount the long-term GDP growth rate for master limited partnerships by 50%.
[2] Companies excluded for significantly negative 5Y Analysts' Growth rates: Enterprise Products Partners, Phillips 66 and Plains All American. Company excluded for illogical 5Y Analysts' Growth Rate >20%: Pembina Pipeline.

Composite Analysis

Study Period Ending	CAPM Analysis Low	Median	High	DCF Analysis Low	Median	High	Composite Low Avg.	Median Avg.	High Avg.
5/2020	10.42%	12.05%	15.19%	9.46%	13.23%	20.22%	9.94%	12.64%	17.79%
6/2020	10.24%	11.86%	14.99%	9.88%	12.33%	20.81%	10.06%	12.17%	17.90%

Source: ClearView Energy Partners, LLC

Figure 4 – Delays to Global Liquefaction Projects So Far This Year

Country	Project (Sponsor)	Capacity (Bcf/d)	Pre-COVID-19 Estimated In-Service Date	Current Estimated In-Service Date[1]	Event
U.S.					
United States	Freeport LNG T4 (Freeport)	0.7	2023	2024	On June 23, a Freeport LNG spokesperson tells Platts that the company does not expect to take final investment decision (FID) on the fourth train of its Freeport LNG facility this year, but that it could begin construction by mid-2021 subject to market conditions.
United States	Rio Grande (NextDecade)	3.6	2023	2024	On May 18, NextDecade announces that it has delayed taking FID on its Rio Grande LNG liquefaction facility to 2021.
United States	Port Arthur (Sempra)	1.4	2023	2024	On May 4, Sempra announces that it has delayed taking FID on its Port Arthur LNG project to 2021.
United States	Driftwood (Tellurian)	3.6	2023	2024	On June 16, Tellurian announces that it has pushed construction of its Driftwood facility to 1H2021 from 2020.
United States	Texas LNG Brownsville (Texas LNG)	0.6	2024-2025	2025-2026	On May 6, Texas LNG announces that it has delayed taking FID on its Texas LNG Brownsville facility to 2021.
United States	Lake Charles (Energy Transfer)	2.3	2025	2026	On March 30, media report that Energy Transfer has delayed taking FID on its Lake Charles LNG project to 2021.
Total U.S.	--	**12.2**	--	--	--
International					
Senegal	Gimi FLNG (Golar LNG)	0.33	2022	TBD	Golar LNG announces on April 7 that it received a written notification of a force majeure claim from BP indicating that the company does not expect to be ready to receive the FLNG facility in 2022 due to COVID-19.
Canada	Goldboro (Pieridae Energy)	0.81	2023	2024	On May 5, Pieridae Energy announces that it had delayed taking FID on its Goldboro LNG project to 2021.
Canada	Woodfibre (Pacific Oil & Gas Ltd.)	0.28	2023	2024	On March 25, a Pacific Oil & Gas spokesperson says in a statement to media that the company would delay construction of the Woodfibre LNG facility until mid-2021.
Mozambique	Rovuma (ExxonMobil)	2	2024	TBD	Exxon announces on April 7 that it does not plan to take FID on its Rovuma LNG facility in 2020.
Qatar	North Field Expansion Project (Qatar Petroleum)	4.21	2024	2025	Qatar Petroleum CEO Saad al-Kaabi tells Reuters on April 6 that the company plans to delay LNG production at the North Field project by one year to 2025.
Australia	Pluto Train 2 (Woodside)	0.7	2025	2026	On March 27, Woodside announces that it is has delayed taking FID on train 2 of its Pluto LNG facility until 2021.
Total Int'l	--	**8.3**	--	--	--
Sum Total	--	**20.6**	--	--	--

Notes:
[1] We assumed a final investment decision delay of one year correspondingly sets back a project's estimated in-service date by one year.

Source: ClearView Energy Partners, LLC, using company and media reports

Steve Young
Executive Vice President and Chief Financial Officer
Duke Energy

Steve Young is executive vice president and chief financial officer for Duke Energy. He leads the financial function, which includes the controller's office, treasury, tax, risk management and insurance, as well as corporate development. These duties include accounting, cash management and overseeing risk control policies. Young also oversees the company's information technology, cybersecurity and physical security organizations.

Young joined Duke Power in 1980 as a financial assistant. After a series of promotions within the controller's department, he was named manager of bulk power agreements in system planning and operating in 1991, and manager of the rate department in 1993. In April 1998, Young was appointed vice president of rates and regulatory affairs, with responsibility for Duke Power's regulatory strategies and policies in rate, financial and accounting matters. He was also accountable for the company's interaction with the utility commissions of North Carolina and South Carolina, and the Federal Energy Regulatory Commission. He was named senior vice president and chief financial officer for Duke Power in February 2003, group vice president and chief financial officer in March 2004, and vice president and controller in June 2005.

In December 2006, Young was named senior vice president and controller for Duke Energy. In addition to maintaining that role at the close of the merger between Duke Energy and Progress Energy in July 2012, he also became the company's chief accounting officer. He was named executive vice president and chief financial officer of Duke Energy in August 2013. In early 2016, Young also assumed responsibility for Duke Energy's newly formed business transformation and technology function.

Young earned a Bachelor of Arts degree in business administration from the University of North Carolina at Chapel Hill. He also completed the Advanced Management Program at the Wharton School of Business and the Reactor Technology Course for Utility Executives at the Massachusetts Institute of Technology.

Young is a certified public accountant and a certified managerial accountant in North Carolina. He is a member of the American Institute of Certified Public Accountants, Institute of Managerial Accountants and National Association of Accountants. He is also a member of the Edison Electric Institute CFO Committee. Young serves as a member of the boards of directors for the Bechtler Museum of Art and the Charlotte Sports Foundation. He is also a member of the Regional Campaign Committee of the United Way of Central Carolinas.

UNITED STATES OF AMERICA

FEDERAL ENERGY REGULATORY COMMISSION

TECHNICAL CONFERENCE – PANEL 4: ACCESS TO CAPITAL – CREDIT, LIQUIDITY AND RETURN ON EQUITY

PRECONFERENCE STATEMENT OF STEVEN K. YOUNG, CHIEF FINANCIAL OFFICER FOR DUKE ENERGY CORPORATION

July 9, 2020

Good afternoon, Mr. Chairman, Commissioners, FERC staff and my fellow panelists. I appreciate the opportunity to participate in the discussion today and look forward to a conversation about the energy industry's access to capital during the COVID-19 pandemic.

As background on Duke Energy, we are one of the nation's largest regulated providers of energy utility service, serving roughly 25 million electric and natural gas customers in the Carolinas, Indiana, Ohio, Kentucky, Florida and Tennessee. While we have some unregulated, commercial operations, the majority of our business is focused on regulated electric and gas utilities and infrastructure and providing essential services to our customers, which is accomplished through investing approximately $10 billion of capital each year.

2020 has presented challenges for many industries across the globe – and the energy and utility industries are not immune. Duke Energy, along with many utilities, must account for the capital-intensive nature of our business as we continue to make significant investments to modernize the energy grid, generate cleaner energy and expand natural gas infrastructure – all of which position the company to serve customers with reliable, affordable and increasingly clean energy now and well into the future. This

forum, as well as the other panels in this conference, enable stakeholders from across the country with wide-reaching viewpoints to better understand how the industry continues to respond and demonstrate dexterity during times of adversity and steps utilities are taking to ensure the strength of their balance sheet during these unusual economic times.

As a consequence of the essential services we provide and the capital intensity of these services, nearly all of our services and the rates we are permitted to charge for those services are overseen by this Commission and by state public service commissions. We have a five-year capital investment plan of $56 billion, virtually all of which is in our electric and gas utilities. To fund these significant capital investments required to provide service to our customers, it is essential that we are able to attract debt and equity capital in the same financial markets utilized by our peers and by other non-regulated businesses to provide effective service to the public. If access to the capital markets is unduly impaired, our ability to provide customers with safe and reliable electric and natural gas services at a reasonable cost is jeopardized.

In early 2020 – and particularly beginning March of this year, the debt and equity markets experienced significant volatility, creating concerns about access to reasonably-priced capital across the industry. In fact, access to markets was severely restricted and, if access could be attained, the cost was quite high on a relative basis. To illustrate the magnitude of this year's volatility, in a 48-day period between February and April 2020 there were 24 days when the equity market moved more than 3%. In the prior three years, there were only six such days with market moves of 3% or greater. In addition, short-term and long-term new borrowing rates nearly doubled in a two-week period during March. And

Duke Energy's secondary values of equity and debt fell by up to 25% in some cases. The Treasury Department's support of credit markets and the impacts of the federal stimulus legislation funding were critical to stabilizing the situation. We cannot become complacent – and given the COVID-19 virus is not yet under control and we continue to see high unemployment rates, the economy could face additional problems. And, hurricane season only exacerbates the situation for utilities, particularly those electric utilities that serve Southeastern franchises.

Duke Energy, like many utilities I suspect, is cash flow negative and projects to be throughout our five-year planning horizon. This is not a new phenomenon and is due to the significant capital investment requirements, which exceed the funds received from operations. As I stated earlier Duke Energy's capital plan of over $10 billion per year is needed to maintain, modernize and expand our infrastructure to meet customer demands and growth. We must make investments in new transmission and distribution infrastructure as customer growth occurs. We must make investments to modernize the grid with smart meters and storm-hardened equipment to better communicate to customers and withstand extreme weather events. We must invest in renewables and storage technology to de-carbonize our generation fleet. Think about the importance of reliability of energy supply to each home and business with the extensive reliance on interconnectivity. In order to meet these needs, we must have confidence in access to capital markets. Correspondingly, lenders, meaning bond holders and shareholders, must have confidence that utilities will be able to recover these financing costs in rates.

We recognize the challenge our customers and employees face in these times and have responded by suspending disconnections, waiving late fees, granting employee stipends and contributing to

community charitable organizations. These are the right things to do, but they also increase funding pressures. Customer accounts in arrears have increased 68% when comparing May of 2019 to May of 2020 – and that's directly tied to the COVID-19 pandemic. Duke Energy and many of our peer utilities are tightening our belts to help ease the financial stress, but regulatory support is critical to continue to provide adequate service.

Specifically, we are looking to our regulators to provide adequate and timely recovery of costs. This means setting returns that are appropriate, given the increased risk in the marketplace, and recovery periods that are not overly extended. This will instill confidence in investors who are critical to funding the projects required to provide reliable service. As a result of the COVID-19 pandemic, our customers' homes have become their offices, restaurants, schools and more as they stay at home, so we recognize the importance of providing reliable service while we all adjust to the current environment – and into the future. At the same time, we must maintain our financial strength, access to capital, credit ratings and liquidity position to attract investors and keep customer rates affordable. I look forward to the continued dialogue around this topic today and the many perspectives that will be shared as part of the panel discussion.