

Summary of Written Testimony of FERC Commissioner Richard Glick
Subcommittee on Energy
House Energy and Commerce Committee
June 12, 2019

The Federal Energy Regulatory Commission's (FERC or the Commission) exercise of its statutory responsibilities has significant consequences for subjects as diverse as the price of energy, the ability of public utilities to reliably and safely serve consumers, and the environment in which we live. The Commission's responsibility to eliminate barriers to wholesale electricity market competition, how FERC addresses state energy policies and their impacts on wholesale markets, and the Commission's energy infrastructure permitting responsibilities have particularly important consequences for greenhouse gas emissions and, consequently, for climate change.

Over the last decade, the Commission has taken a number of important steps to remove barriers to competition and ensure that new technologies and products can compete on a level playing field, including demand response resources, variable energy resources, and electric storage resources. I believe the time has come for the Commission to take similar action with regard to aggregated distributed energy resources. I also believe that the Commission must respect Congress's decision under the Federal Power Act to leave the states in charge of resource decision making. In the energy infrastructure permitting space, in my opinion, the Commission is ignoring its statutory mandates under the Natural Gas Act by refusing to analyze reasonably foreseeable greenhouse gas emissions associated with new interstate natural gas pipelines and facilities used to import or export liquefied natural gas. While the Commission is not a climate regulator, the potential climate consequences of the Commission's actions make it all the more important that the Commission faithfully execute its statutory mandates.

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Chairman Rush, Ranking Member Upton, and Members of the Subcommittee. Thank you for the opportunity to testify this morning.

The Federal Energy Regulatory Commission (FERC or the Commission) has sometimes been referred to as a sleepy little agency. But the fact is that many of the actions we take have a significant impact on the everyday lives of Americans. FERC is entrusted with protecting the public interest by regulating significant swathes of the U.S. energy industry, including the wholesale sale and transmission of electricity, the transportation of oil and natural gas, and the permitting of several types of energy infrastructure projects. The Commission's exercise of this responsibility has significant consequences for subjects as diverse as the price of energy, the ability of public utilities to reliably and safely serve consumers, and the environment in which we live.

The American electricity sector is in the midst of a dramatic transformation to a less carbon-intensive, more distributed electric generation fleet that is increasingly customer-centric. The cost of renewable energy technologies, such as wind and solar, has fallen dramatically over the last few decades¹ and those declines are forecasted to continue in the years ahead.² The same is

¹ Lazard, *Levelized Cost of Energy Analysis—Version 12.0*, at 8 (Nov. 2018), <https://www.lazard.com/media/450784/lazards-levelized-cost-of-energy-version-120-vfinal.pdf>.

² Energy Innovation & Technology, LLC, *Renewable Electricity Levelized Cost of Energy Already Cheaper Than Fossil Fuels, and Prices Keep Plunging* (Jan. 22, 2018), <https://energyinnovation.org/2018/01/22/renewable-energy-levelized-cost-of-energy-already-cheaper-than-fossil-fuels-and-prices-keep-plunging/>.

true for battery storage³ and distributed energy resources.⁴ These reductions in price have resulted in a substantial increase in the deployment of these newer technologies. In three of the last four years, wind and solar have accounted for the majority of new electric generation capacity in the United State and that growth is expected to further accelerate in the years ahead.⁵ Partly as a result of these trends, some regions of the country now, at times, produce a majority of their electricity from renewable resources.⁶ In addition, electric storage in the United States is expected to be a \$4.5 billion market and analysts anticipate there will be nearly 4 gigawatts of annual deployments by 2023.⁷ Moreover, distributed energy resource capacity, such as that provided by rooftop solar panels, is projected to nearly double by 2024.⁸ On top of these factors, the growth in zero-marginal cost generation and low natural gas prices are playing a significant

³ BloombergNEF, *Tumbling Costs for Wind, Solar, Batteries are Squeezing Fossil Fuels* (Mar. 28, 2018), <https://about.bnef.com/blog/tumbling-costs-wind-solar-batteries-squeezing-fossil-fuels/>.

⁴ Herman K. Trabish, *Can the Price of Rooftop Solar Keep Falling?*, UtilityDive (Oct. 18, 2018), <https://www.utilitydive.com/news/can-the-price-of-rooftop-solar-keep-falling/539612/>. The Commission has defined distributed energy resources as resources interconnected through the distribution grid, including, for example, small batteries and rooftop solar systems. *Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators*, 157 FERC ¶ 61,121, at P 1 n.2 (2016) (Notice of Proposed Rulemaking).

⁵ U.S. Energy Info. Admin., *Nearly Half of Utility-Scale Capacity Installed in 2017 Came from Renewables* (Jan. 10, 2018), <https://www.eia.gov/todayinenergy/detail.php?id=34472>; Michael Goggin et al., *Customer Focused and Clean: Power Markets for the Future*, Wind Solar Alliance 7 (2018), https://windsolaralliance.org/wp-content/uploads/2018/11/WSA_Market_Reform_report_online.pdf; U.S. Energy Info. Admin., *New Electric Generating Capacity in 2019 Will Come from Renewables and Natural Gas* (Jan. 10, 2019), <https://www.eia.gov/todayinenergy/detail.php?id=37952>.

⁶ See, e.g., Southwest Power Pool, *SPP 101: An Introduction to Southwest Power Pool* 124 (May 2019), <https://www.spp.org/documents/31587/intro%20to%20spp.pdf> (stating a maximum wind penetration in Southwest Power Pool of 67.3% on April 27, 2019); Jeff Zhou, *ERCOT Sets Record Wind Output and Penetration Rate Over the Holiday Weekend*, S&P Global Platts (Jan. 22, 2019), <https://www.spglobal.com/platts/en/market-insights/latest-news/electric-power/012219-ercot-sets-record-wind-output-and-penetration-rate-over-the-holiday-weekend> (stating a new record in the Electric Reliability Council of Texas of 56% of total demand served by wind energy on January 19, 2019); California ISO, *Monthly Renewables Performance Report April 2019*, <http://www.caiso.com/Documents/MonthlyRenewablesPerformanceReport-Apr2019.html> (last visited June 8, 2019) (listing the maximum five minute renewable serving load all-time record in the California Independent System Operator as 78.06%).

⁷ Robert Walton, *US Storage Market to Reach 3.9 GW, \$4.5B by 2023: Wood Mackenzie*, UtilityDive (Dec. 7, 2018), <https://www.utilitydive.com/news/us-storage-market-to-reach-39-gw-45b-by-2023-wood-mackenzie/543779/>.

⁸ FERC Staff Report, *Distributed Energy Resources Technical Considerations for the Bulk Power System* Fig. 2 (Feb. 2018), <https://www.ferc.gov/legal/staff-reports/2018/der-report.pdf>.

role in the changing resource mix by putting downward pressure on wholesale electric rates and displacing aging, uneconomic facilities.⁹

This transformation in the American electricity sector is good for consumers, the American economy, and the environment. As the costs of newer, cleaner technologies continue to decline, consumers are increasingly seeing lower cost electricity.¹⁰ And as more of these newer technologies are deployed, consumers are gaining more control over both the production and consumption of electricity. These changes are not only stimulating the American economy through direct electricity savings to American businesses, but also through significant job growth. The two fastest growing occupations nationwide are solar photovoltaic installers and wind turbine service technicians.¹¹ Nearly 3.3 million employees work in clean energy already.¹² Beyond the domestic impacts, the United States has a significant opportunity to lead the world in the development and deployment of clean energy technologies.

Perhaps most importantly, this clean energy transformation will have a lasting positive impact on the environment and climate change. The evidence that anthropogenic climate change is an existential threat to our way of life is incontrovertible. The Intergovernmental Panel on Climate Change recently concluded that global temperatures are on track to rise by 1.5°C by as early as

⁹ U.S. Dep't of Energy, *Staff Report to the Secretary on Electricity Markets and Reliability* (Aug. 2017), https://www.energy.gov/sites/prod/files/2017/08/f36/Staff%20Report%20on%20Electricity%20Markets%20and%20Reliability_0.pdf; The Economist Intelligence Unit, *US Coal Plant Retirements to Continue* (Sept. 7, 2018), <http://www.eiu.com/industry/article/1277120111/us-coal-plant-retirements-to-continue/2018-09-07>.

¹⁰ TXP, Inc. & IdeaSmiths LLC, *The Economic Value of Renewable Energy in Texas: Reducing Energy Costs for Customers 2* (2018), <https://static1.squarespace.com/static/5bc4a0d8e5f7d17e4e04af16/t/5bc643bef4e1fcb9bfccf4e7/1539720128210/Reducing+Energy+Costs+for+Customers.pdf>; Joachim Seel et al., *Impacts of High Variable Renewable Energy Futures on Wholesale Electricity Prices, and on Electric-Sector Decision Making* vii (2018), http://eta-publications.lbl.gov/sites/default/files/report_pdf_0.pdf.

¹¹ U.S. Dep't of Labor Bureau of Labor Statistics, *Fastest Growing Occupations* Table 1.3 (Apr. 12, 2019), <https://www.bls.gov/emp/tables/fastest-growing-occupations.htm>.

¹² Silvio Marcacci, *Renewable Energy Job Boom Creates Economic Opportunity As Coal Industry Slumps*, *Forbes* (Apr. 22, 2019), <https://www.forbes.com/sites/energyinnovation/2019/04/22/renewable-energy-job-boom-creating-economic-opportunity-as-coal-industry-slumps/#535c64de3665>.

2030, a result that could present “irreversible” consequences.¹³ The Trump Administration’s most recent National Climate Assessment points out that we are already experiencing the impacts of climate change and indicates that, absent a dramatic reduction in greenhouse gas emissions, annual economic losses caused by climate change will reach into the hundreds of billions of dollars by the end of the century.¹⁴ That figure does not reflect the potentially catastrophic consequences to human health and well-being¹⁵ or the staggering degradation of the environment.¹⁶

The American people are far ahead of the federal government in demanding action on climate change.¹⁷ Consumers are increasingly demanding that their energy come from renewable or zero-emissions sources. Numerous studies show that individual consumers place significant value on both the clean and renewable attributes of their electricity.¹⁸ Businesses are recognizing this shift to a more customer-centric model and delivering consumers what they want. Dozens of corporations—including some of the largest in the country—have announced or already achieved a goal of procuring all of their electricity needs from zero-emissions or renewable resources.¹⁹

¹³ Intergovernmental Panel on Climate Change, *Special Report: Global Warming of 1.5°C* 6-7 (2018), <http://www.ipcc.ch/report/sr15/>.

¹⁴ U.S. Global Change Research Program, *Fourth National Climate Assessment*, Summary Findings (2018), <https://nca2018.globalchange.gov/>.

¹⁵ Nick Watts et al., *The 2018 Report of the Lancet Countdown on Health and Climate Change: Shaping the Health of Nations for Centuries to Come*, *The Lancet* (Nov. 28, 2018), [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(18\)32594-7/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)32594-7/fulltext).

¹⁶ U.S. Global Change Research Program, *Fourth National Climate Assessment*, Ecosystems (2018), <https://nca2018.globalchange.gov/>; Chelsea Harvey, *Climate Change Is Becoming a Top Threat to Biodiversity*, *E&E News* (Mar. 28, 2018), <https://www.scientificamerican.com/article/climate-change-is-becoming-a-top-threat-to-biodiversity/>; Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, *Summary for Policymakers of the Global Assessment Report on Biodiversity and Ecosystem Services* (May 6, 2019), https://www.ipbes.net/sites/default/files/downloads/spm_unedited_advance_for_posting_hfn.pdf.

¹⁷ David Roberts, *Utilities Have a Problem: the Public Wants 100% Renewable Energy, and Quick*, *Vox* (Oct. 11, 2018), <https://www.vox.com/energy-and-environment/2018/9/14/17853884/utilities-renewable-energy-100-percent-public-opinion>.

¹⁸ *Id.*; Patty Durand, *Three Things Consumers Want From Electricity Providers*, *UtilityDive* (Apr. 10, 2018), <https://www.utilitydive.com/news/three-things-consumers-want-from-electricity-providers-1/520821/>.

¹⁹ BloombergNEF, *Corporations Purchased Record Amounts of Clean Power in 2017* (Jan. 22, 2018), <https://about.bnef.com/blog/corporations-purchased-record-amounts-of-clean-power-in-2017/>; Int’l Renewable Energy Agency, *Corporate Sourcing of Renewables: Market and Industry Trends* 10 (2018), <https://irena.org/>

For example, Anheuser-Busch recently announced that it will reach its 100 percent renewable electricity goal by 2021 (4 years earlier than its original commitment), brewing its entire portfolio of domestic beer brands from solar and wind power.²⁰ Proctor and Gamble similarly announced a goal of powering all of its plants with 100 percent renewable energy by 2030.²¹ All told, corporate renewable energy procurement had a record year in 2018 and is now one of the chief factors driving growth in renewable energy.²²

Although FERC is not a climate regulator, there is no question that the Commission's actions have substantial consequences for climate change. As discussed below, the Commission's responsibility to eliminate barriers to wholesale electricity market competition, how FERC addresses state energy policies and their impacts on wholesale markets, and the Commission's energy infrastructure permitting responsibilities have particularly important consequences for greenhouse gas emissions.²³

The Commission has the responsibility pursuant to the Federal Power Act (FPA) to eliminate unjust, unreasonable, unduly discriminatory, and preferential barriers to wholesale market competition.²⁴ Many wholesale market rules were designed for a grid that was overwhelmingly composed of more conventional generation facilities with capabilities that differ in important respects from newer technologies, such as wind, solar, and battery storage. These market rules

/media/Files/IRENA/Agency/Publication/2018/May/IRENA_Corporate_sourcing_2018.pdf; RE100, *Companies*, <http://there100.org/companies> (last visited June 8, 2019).

²⁰ Anheuser-Busch, *Anheuser-Busch is Going Solar: New Project Will Allow Company to Reach 100 Percent Renewable Electricity Goal* (June 4, 2019), <https://www.anheuser-busch.com/newsroom/2019/06/world-environment-day-2019-/world-environment-day-2019.html>.

²¹ The Procter & Gamble Company, *P&G Announces New Environmental Sustainability Goals Focused on Enabling and Inspiring Positive Impact in the World* (Apr. 16, 2018), <https://news.pg.com/press-release/pg-announces-new-environmental-sustainability-goals-focused-enabling-and-inspiring-pos>.

²² BloombergNEF, *Corporate Clean Energy Buying Surged to New Record in 2018* (Jan. 28, 2019), <https://about.bnef.com/blog/corporate-clean-energy-buying-surged-new-record-2018/>.

²³ Rich Glick & Matthew Christiansen, *FERC and Climate Change*, 40 *Energy L.J.* 1 (2019).

²⁴ 16 U.S.C. §§ 824d, 824e (2012).

can pose unintended barriers to those technologies' full participation in wholesale markets. The Commission must be vigilant in breaking down barriers created by those antiquated market rules and ensuring that all resources can compete on a level playing field.²⁵ Doing so can also indirectly facilitate a reduction in emissions by enabling the participation of new, relatively clean resources that can play a pivotal role in the electricity grid of the future.

Over the last decade, the Commission has taken a number of important steps to remove barriers to competition and ensure that new technologies and products can compete on a level playing field. For example, in 2008, the Commission sought to ensure that demand response resources²⁶ were able to participate in wholesale electricity markets by requiring regional transmission organizations and independent system operators (RTOs/ISOs) to make a number of reforms, including revising their market rules to accept offers from demand response resources largely as they would offers from conventional generators.²⁷ In 2011, the Commission again removed barriers to demand response resources' participation in wholesale electricity markets by requiring RTOs/ISOs to compensate such resources at the same level as conventional resources.²⁸ Similarly, in 2012, the Commission aimed to create a level playing field for variable energy resources—primarily wind and solar—by revising market rules that did not accommodate

²⁵ It is important to note that breaking down barriers to competition does not mean giving new technologies a preference over conventional ones or excusing new resources from obligations that apply to similarly situated conventional resources.

²⁶ Demand response programs pay consumers to reduce their electricity use in response to the price of electricity. *FERC v. Elec. Power Supply Ass'n*, 136 S. Ct. 760, 767 (2016).

²⁷ *Wholesale Competition in Regions with Organized Electric Markets*, Order No. 719, 125 FERC ¶ 61,071, at PP 3, 16-19 (2008), *order on reh'g*, Order No. 719-A, 128 FERC ¶ 61,059 (2009), *order on reh'g*, Order No. 719-B, 129 FERC ¶ 61,252 (2009).

²⁸ *Demand Response Compensation in Organized Wholesale Energy Markets*, Order No. 745, 134 FERC ¶ 61,187, at P 59, *order on reh'g & clarification*, Order No. 745-A, 137 FERC ¶ 61,215 (2011), *reh'g denied*, Order No. 745-B, 138 FERC ¶ 61,148 (2012), *vacated sub nom. Elec. Power Supply Ass'n v. FERC*, 753 F.3d 216 (D.C. Cir. 2014), *rev'd & remanded sub nom. FERC v. Elec. Power Supply Ass'n*, 136 S. Ct. 760 (2016).

their operational models and characteristics, such as the rules governing how transmission service is purchased and scheduled.²⁹

More recently, early last year the Commission issued a final rule that requires RTOs/ISOs to facilitate the participation of electric storage resources in the wholesale electricity markets.³⁰

The Commission required each RTO/ISO to establish a participation model for electric storage resources that recognizes the physical and operational characteristics of those resources. The model must: (1) ensure that electric storage resources are eligible to provide all capacity, energy, and ancillary services that they are technically capable of providing; (2) ensure that such resources can be dispatched and can set the wholesale market clearing price as both a seller and a buyer; (3) account for the physical and operational characteristics of such resources through bidding parameters or other means; and (4) set a minimum size requirement for electric storage resource participation that does not exceed 100 kilowatts. The Commission also required that each RTO/ISO specify that the sale of electric energy from their markets to an electric storage resource that the resource then resells back to those markets must be at the wholesale locational marginal price.

Shortly after taking action on electric storage resources, the Commission also reformed its standard generator interconnection procedures and agreements to, among other reforms, reduce potential barriers to large electric storage resources by explicitly including such resources in the

²⁹ *Integration of Variable Energy Resources*, Order No. 764, 139 FERC ¶ 61,246, *order on reh'g & clarification*, Order No. 764-A, 141 FERC ¶ 61,232 (2012), *order on clarification & reh'g*, Order No. 764-B, 144 FERC ¶ 61,222 (2013).

³⁰ *Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators*, Order No. 841, 162 FERC ¶ 61,127 (2018), *order on reh'g*, Order No. 841-A, 167 FERC ¶ 61,154 (2019).

definition of generating facility and expanding opportunities for interconnection customers to exercise the option to build certain required interconnection facilities themselves.³¹

The Notice of Proposed Rulemaking that led to the final rule on electric storage resources also proposed reforms to remove barriers to aggregated distributed energy resources' participation in wholesale markets. In particular, the Commission proposed to require each RTO/ISO to permit aggregated distributed energy resources to participate in their markets under the model that best accommodates the physical and operational characteristics of those resources. The Commission's proposal would also have required RTOs/ISOs to remove any unnecessary limitations on how aggregated distributed energy resources must be operated. Although the final rule on electric storage resources recognized the importance of removing barriers to aggregated distributed energy resource participation in wholesale markets, the Commission concluded that it needed additional information before issuing a final rule addressing distributed energy resources. To gather this information, the Commission conducted a two-day technical conference in April 2018. I believe we now have a sufficient record to move forward with a final rule that facilitates aggregated distributed energy resources' participation in wholesale markets. The time has come for the Commission to take new actions to eliminate those barriers.

The Commission's relationship with state energy policies can also have important consequences for climate change. Although FERC has jurisdiction over the wholesale sale and transmission of electricity in interstate commerce, the FPA reserves to the states exclusive jurisdiction to regulate "facilities used for the generation of electric energy."³² This state authority includes the regulation of environmental externalities associated with electricity generation, such as

³¹ *Reform of Generator Interconnection Procedures and Agreements*, Order No. 845, 163 FERC ¶ 61,043 (2018), *order on reh'g*, Order No. 845-A, 166 FERC ¶ 61,137 (2019).

³² 16 U.S.C. § 824(b) (2012).

greenhouse gas emissions.³³ Although Congress has revised the FPA a number of times, it has never revisited this preservation of the states' authority over resource decision making.

Any dual federalist statute will produce tensions at the jurisdictional boundaries between federal and state authority. In recent years, however, these tensions have increased as states have stepped in to fill the policy vacuum at the federal level on greenhouse gas emissions and climate change. Because many state actions will shape the number and type of resources available to participate in the wholesale market, they will inevitably have consequences for the wholesale sales of electricity subject to Commission jurisdiction. In recent years, a number of entities that would rather not compete directly with state-sponsored clean resources (ignoring that many of them have also benefitted, and continue to benefit from government subsidies), have urged the Commission to use those consequences as a basis for Commission action to frustrate or limit the effect of certain state policies aimed at reducing greenhouse gas emissions.

The Commission must resist the temptation to interfere with those state policies. Rather, the Commission must respect Congress's decision to leave the states in charge of regulating the generation mix, which, among other things, means that the Commission must ensure that wholesale market rules are not deployed to frustrate state policies. Not only does the FPA expressly reserve authority to regulate generation facilities to the states, but regulations addressing environmental externalities are paradigmatic examples of a state's exercise of its

³³ *Hughes v. Talen Energy Mktg., LLC*, 136 S. Ct. 1288, 1299 (2016); *Elec. Power Supply Ass'n v. Star*, 904 F.3d 518, 523-24 (7th Cir. 2018), *cert. denied*, 139 S. Ct. 1547 (2019); *Coal. for Competitive Elec. v. Zibelman*, 906 F.3d 41, 55 (2d Cir. 2018); *Allco Fin. Ltd. v. Klee*, 861 F.3d 82, 101 (2d Cir. 2017), *cert. denied*, 138 S. Ct. 926 (2018); *Conn. Dep't of Pub. Util. Control v. FERC*, 569 F.3d 477, 481 (D.C. Cir. 2009); Brief for the U.S. and the FERC as Amici Curiae at 22-27, *Elec. Power Supply Ass'n v. Star*, 7th Cir. Nos. 17-2433 and 17-2445 (filed May 29, 2018); Brief of Amici Curiae Electricity Law Scholars in Support of Defendants-Appellees at 10-18, *Elec. Power Supply Ass'n*, 904 F.3d 518 (Nos. 17-2433 and 17-2445).

general police powers over health and welfare.³⁴ According adequate deference to state public policies under the FPA has potentially significant consequences for climate change, especially given the absence of federal action to address this existential threat.

Beyond the electricity sector, the Commission's energy infrastructure permitting responsibilities can also impact emissions. The Commission has authority over the licensing of certain hydroelectric facilities³⁵ as well as the siting of interstate natural gas pipelines³⁶ and facilities used to import or export liquefied natural gas.³⁷ With regard to hydroelectric facilities, the Commission is responsible for licensing and overseeing non-federally owned hydroelectric facilities in the navigable waters of the United States or on federally owned lands. Before issuing a license, the Commission must determine whether a hydroelectric facility is in the public interest. I believe that the ability of hydroelectric facilities to generate zero-emissions electricity³⁸ and to integrate other sources of zero-emissions electricity,³⁹ thereby reducing greenhouse gas emissions from the electricity sector, should be an important aspect of the Commission's public interest determination under the FPA.

³⁴ See, e.g., *Huron Portland Cement Co. v. City of Detroit*, 362 U.S. 440, 442 (1960) (“Legislation designed to free from pollution the very air that people breathe clearly falls within the exercise of even the most traditional concept of what is compendiously known as the police power.”).

³⁵ 16 U.S.C. § 797(e) (2012).

³⁶ 15 U.S.C. § 717f (2012).

³⁷ *Id.* § 717b.

³⁸ Hydropower remains one of the largest sources of renewable electricity in the United States. U.S. Energy Info. Admin., *Electric Power Monthly* (Mar. 2019), https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_1_01_a.

³⁹ U.S. Dep't of Energy, *Hydropower Vision: A New Chapter for America's 1st Renewable Electricity Source* 48 (2016), <https://www.energy.gov/sites/prod/files/2018/02/f49/Hydropower-Vision-021518.pdf>; A. Botterud et al., *Pumped Storage Hydropower: Benefits for Grid Reliability and Integration of Variable Renewable Energy*, Argonne Nat'l Lab. 33-43 (2014), <https://publications.anl.gov/anlpubs/2014/12/106380.pdf>; Timothy J. Welch, *Pumped-Storage Hydropower Shows Promise for Boosting Energy Storage*, U.S. Dep't of Energy Office of Energy Efficiency & Renewable Energy (Aug. 23, 2016), <https://www.energy.gov/eere/articles/pumped-storage-hydropower-shows-promise-boosting-energy-storage>.

The Commission also must make a public interest determination under the Natural Gas Act (NGA) before issuing certificates for interstate natural gas pipelines and facilities used to import or export liquefied natural gas. Because environmental effects factor directly into the public interest standard, the Commission must analyze the environmental effects of a proposed interstate natural gas pipeline under both section 7 of the NGA and the National Environmental Policy Act (NEPA).⁴⁰ That evaluation must include not just the direct effects of a proposed interstate natural gas pipeline, such as emissions associated with construction and operation, but also the indirect effects that are reasonably foreseeable consequences of granting a section 7 certificate.

A new interstate natural gas pipeline may, in some instances, help to reduce greenhouse gas emissions by reducing reliance on oil or coal, which produce more greenhouse gas emissions per unit of electricity generated than a new natural gas-fired plant. But natural gas is also a source of greenhouse gas emissions. Greenhouse gases are emitted not only through the downstream combustion of the natural gas, but also upstream from the new infrastructure through flaring and fugitive methane emissions, among others sources.⁴¹ In other words, new natural gas infrastructure can have a number of effects on greenhouse gas emissions, either mitigating or contributing to the ultimate harm from climate change, all of which must factor into the Commission's evaluation of whether a certificate is in the public interest.

Unfortunately, in my opinion, the Commission has chosen to ignore its statutory mandates.

Indeed, last year the majority of Commissioners announced a new policy that explicitly chooses

⁴⁰ National Environmental Policy Act of 1969, Pub. L. No. 91–190, 83 Stat. 852; *see Sierra Club v. FERC*, 867 F.3d 1357, 1373-74 (D.C. Cir. 2017) (*Sabal Trail*).

⁴¹ Union of Concerned Scientists, *Environmental Impacts of Natural Gas*, <https://www.ucsusa.org/clean-energy/coal-and-other-fossil-fuels/environmental-impacts-of-natural-gas> (last visited June 8, 2019).

to ignore reasonably foreseeable upstream and downstream greenhouse gas emissions in almost all cases.⁴² This policy prevents the Commission from performing the public interest analysis that Congress required when it enacted the NGA and creates legal risk for pipeline developers as the Commission's public interest determinations are increasingly tested before the courts.

In fact, the U.S. Court of Appeals for the D.C. Circuit held in 2017 that the emissions resulting from the downstream combustion of natural gas transported through an interstate natural gas pipeline can be a reasonably foreseeable result of building that pipeline that must be considered as part of the Commission's public interest determination.⁴³ The Commission to date has ignored this precedent. Last week, the D.C. Circuit reaffirmed its position that FERC has a statutory responsibility to examine an interstate natural gas pipeline's reasonably foreseeable upstream and downstream emissions when it considers whether the proposed pipeline is in the public interest.⁴⁴ I sincerely hope that I can work with my colleagues to meaningfully consider greenhouse gas emissions as part of the public interest determination going forward.

Similarly, under section 3 of the NGA, the Commission issues licenses for the facilities used to import or export liquefied natural gas unless it finds that the proposed facilities will not be consistent with the public interest.⁴⁵ As with new interstate natural gas pipelines, the Commission has refused to consider the significance of greenhouse gas emissions associated with new liquefied natural gas facilities.⁴⁶ In some cases, the Commission has gone so far as to

⁴² *Dominion Transmission, Inc.*, 163 FERC ¶ 61,128, at P 43 (2018).

⁴³ *Sabal Trail*, 867 F.3d at 1373-74.

⁴⁴ *Birckhead v. FERC*, No. 18-1218, 2019 WL 2344836, at *3-4 (D.C. Cir. June 4, 2019).

⁴⁵ 15 U.S.C. § 717b (2012).

⁴⁶ See *Dominion Energy Cove Point LNG, LP*, 164 FERC ¶ 61,102 (2018). The courts have explained that, because the authority to authorize liquefied natural gas exports rests with the U.S. Department of Energy, NEPA does not require the Commission to consider the upstream or downstream greenhouse gas emissions that may be indirect effects of the export itself when determining whether the related liquefied natural gas export facility satisfies section 3 of the NGA. See *Sierra Club v. FERC*, 827 F.3d 36, 46-47 (D.C. Cir. 2016) (*Freeport*); see also *Sabal*

quantify the greenhouse gas emissions, but then refused to assess their significance.⁴⁷ This not only neglects the Commission's obligation to assess the environmental impacts of the proposed facilities under the NGA and NEPA, but also its concomitant duty to explore possible mitigation measures to reduce any significant adverse effects. In so doing, the Commission treats greenhouse gas emissions differently than all other environmental impacts it considers. The refusal to assess the significance of greenhouse gas emissions also precipitates the Commission's misleading conclusion that proposed new infrastructure has no significant environmental impact—a finding that plays an integral role in the Commission's public interest determination.

In sum, while the Commission is not a climate regulator, the potential climate consequences of the Commission's actions make it all the more important that the Commission faithfully execute its statutory mandates.

Chairman Rush and Ranking Member Upton, thank you again for the opportunity to appear before the Subcommittee today. I look forward to answering your questions and the questions of your colleagues.

Trail, 867 F.3d at 1373. NEPA still requires, however, that the Commission consider the direct greenhouse gas emissions associated with a proposed liquefied natural gas export facility. *See Freeport*, 827 F.3d at 41, 46.

⁴⁷ *See Driftwood LNG LLC*, 167 FERC ¶ 61,054 (2019) (issuing a section 3 certificate for a liquefied natural gas export facility that the Commission determined would directly emit over 10 million tons of greenhouse gases annually without assessing the significance of the environmental impact of these emissions); *Port Arthur LNG, LLC*, 167 FERC ¶ 61,052, at P 137 (2019); *Venture Global Calcasieu Pass, LLC*, 166 FERC ¶ 61,144, at P 112 (2019); *Freeport LNG Dev., L.P.*, 167 FERC ¶ 61,155, at P 35 (2019).