Congress of the United States
Washington, DC 20515

January 29, 2023

TO: Members of the Committee on Energy and Commerce

FROM: Committee Majority Staff

RE: Hearing entitled "American Energy Expansion: Strengthening Economic, Environmental, and National Security"

I. INTRODUCTION

On Tuesday, January 31, 2023, at 11:00 a.m. in 2123 Rayburn House Office Building, the Committee on Energy and Commerce will hold a full committee hearing entitled "American Energy Expansion: Strengthening Economic, Environmental, and National Security." The hearing will explore the benefits, opportunities, and approaches to expanding American energy and energy technology.

II. WITNESSES

- **The Honorable Paul Dabbar,** Former Under Secretary of Energy; Distinguished Visiting Fellow, Center on Global Energy Policy, Columbia University; CEO, Bohr Quantum Technology
- **Mr. Robert McNalley**, President, Rapidan Energy Group, LLC
- **Ms. Donna Jackson,** National Advisory Council, Project 21
- **Dr. Ana Unruh Cohen,** Former Majority Staff Director, U.S. House Select Committee on the Climate Crisis

III. BACKGROUND

Energy is essential to the nation's economy, its productive capacity, its national security, and the health and welfare of the public.

Blessed with tremendous natural resources and an economic system that fosters the free flow of capital to support its innovative and technological capabilities, the United States maintains the most sophisticated and efficient systems of energy production and delivery in the world. Its vast and complex electricity systems deliver uninterrupted power to the public, manufacturers, and industry. These energy systems provide for the affordable, reliable energy, feedstocks, and power necessary to expand America's economy, security, the environment, and the welfare of the public.

America's recent shale revolution transformed the nation's energy posture in the world and serves as a lesson in the benefits of American energy expansion.

From 2007 to 2019, hydraulic fracturing, horizontal drilling, and related innovations for production from shale and other "tight" formations, brought an eight-fold increase in extraction productivity for natural gas and a nineteen-fold increase for oil. This reduced costs and spurred production to record-breaking levels, resulting in the United States becoming the world's largest oil and gas producer—a net exporter of oil and the largest exporter of gas. The President's Council of Economic Advisors in 2019 estimated this greater productivity reduced the domestic price of natural gas by 63 percent and led to a 45 percent decrease in the wholesale price of electricity; a 10 percent drop in the global price of oil.[1] This in turn, saved U.S. consumers an estimated $203 billion annually, or $2,500 for a family of four. The increase of more affordable gas to produce electricity especially helped the United States achieve the largest absolute reduction in carbon dioxide emissions in the world.[2]

The shale energy boom switched America's approach to energy "from a mind-set of scarcity," as the International Energy Agency explained, "to one seeking to maximize the benefits of energy abundance."[3] These included national and energy security benefits. Policymakers in Congress lifted the ban on crude oil exports and in the Executive branch reduced regulatory approvals for LNG exports. World energy markets were reshaped. America began providing increased assurance of secure, reliable supplies of energy both for its markets and for the world.[4]

Overall energy demand globally is projected to grow 50% by 2050, with fossil fuels continuing to dominate– accounting for more than 70% of world demand (down from over 80% today). Most of this growth will be from the developing world.[5] With rising power competition with China, the global energy security vulnerabilities exposed by Russia's invasion of Ukraine, and the scale of continued worldwide demand for fossil energy, the vital role for American energy and technology—including nuclear technology—for global energy security will continue.

How to ensure America meets that demand with its energy resources will be an issue for policymakers.

On the domestic front, energy security and affordable, reliable energy and power is challenged by a myriad of state and federal policies.

Challenges to expanding American energy stem from permitting and environmental policies that impede energy production and delivery. These challenges include policies and

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[1] See "The Value of U.S. Energy Innovation and Policies Supporting the Shale Revolution," The Council of Economic Advisors, October 2019.
[2] See Global Energy & CO2 Status Report, International Energy Agency, March 2019.
[3] See International Energy Agency release, "The US shale revolution has reshaped the energy landscape at home and abroad, according to latest IEA policy review," September 13, 2019.
[4] The benefits of U.S. shale gas to European gas prices and savings may be seen in these data linked here, by the Energy Policy Research Foundation.
[5] See, for example, U.S. Energy Information Administration, International Energy Outlook, 2021, linked here.

programs that aim to reduce domestic greenhouse gas emissions at an unprecedented pace for an advanced industrial economy for which fossil energy fuels make up 79% of consumption.[6] Issues surrounding the drive to reduce domestic emissions include: impacts on electric reliability, energy costs, supply chain vulnerabilities, and the long-term economic, security, and industrial impacts from a forced "transition" from fossil-based energy systems.

This past December, the North American Electric Reliability Corporation (NERC) annual assessment of the long-term reliability of the nation's electric system depicted vast areas of the nation at elevated or high risk of power shortfalls during prolonged periods of major weather events that strain the bulk power system.[7] Indeed, Winter Storm Elliott this past December brought extreme cold across much of the country, forcing power outages for over a million homes and businesses. These risks have been attributed to policies that drive a massive, rapid build out of intermittent wind and solar generation, lack of adequate backup power, and closure, loss, or restrictions on firm or dispatchable energy sources—fossil, nuclear, hydroelectric— to assure reliable delivery of power.

How to address these reliability issues and increase access to affordable energy with American energy resources will also be an issue for policymakers.

IV. ISSUES

The following issues may be examined at the hearing:

What are the benefits of American energy expansion, both domestically and globally?

What is necessary to expand American energy and energy technologies?

How may the reliability and affordability of energy and power be assured?

V. STAFF CONTACTS

If you have any questions regarding this hearing, please contact Mary Martin, Peter Spencer, or Jacob McCurdy of the Committee staff.

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[6] See, for example, U.S. EIA linked here. The Biden Administration seeks to cut greenhouse gas emissions by 50-52% below 2005 levels by 2030, and net zero emissions by 2050, see goals, linked here.

[7] See "2022 Long-Term Reliability Assessment," NERC, December 22, linked here. A series of events involving or threatening rolling blackouts in recent years, including this past December, underscore the increasing warnings from NERC about reliability risks.