#### NATIONAL PETROLEUM COUNCIL

# 134th MEETING OF THE NATIONAL PETROLEUM COUNCIL April 23, 2024 9:00 a.m. (E.D.T.)

#### **MEETING MINUTES**

Having been duly called and noticed in the <u>Federal Register</u>, the National Petroleum Council's (NPC) 134th meeting was held on Tuesday, April 23, 2024, at 1401 Pennsylvania Avenue, N.W., Washington, D.C. 20004, with NPC Chair Alan S. Armstrong and the Honorable Jennifer M. Granholm, Secretary of Energy, presiding. After deliberation, the Council approved and submitted to the Secretary the final reports on the GHG Emissions and Hydrogen Energy Studies.

#### Agenda and Attendees.

The meeting agenda and attendance are available as separate attachments on the <u>NPC Meetings</u> section of the Department of Energy website.

#### Call to Order, Introductory Remarks, and Welcome to Attendees and Online Observers. Alan S. Armstrong, Chair, National Petroleum Council.

- Chair Armstrong called the meeting to order at 9:00 a.m. (E.D.T.) and introduced the
  participants at the head table. These included Hon. Jennifer M. Granholm, Secretary of
  Energy; Hon. David M. Turk, Deputy Secretary of Energy; Hon. Bradford J. Crabtree, Assistant
  Secretary for Fossil Energy and Carbon Management; Michael K. Wirth, Chair, Hydrogen
  Energy Study Committee; Ryan M. Lance, Chair, Greenhouse Gas (GHG) Emissions Study
  Committee.
- Chair Armstrong then ceded the floor for Hon. Jennifer Granholm to address the Council.

#### Remarks by the Honorable Jennifer M. Granholm, Secretary of Energy.

- In addressing the Council, Secretary Granholm thanked the leadership of both studies, for the time, resources, and partnership involved in the work. Both studies were requested by Granholm. The Secretary said, "The two studies are really quite comprehensive and the [Biden] Administration is grateful for the ability to have a conversation with you about how jointly we can move to collective outcomes. You have helped us meet the moment when our energy and national security have needed it most [and] we will be counting on you again."
- Secretary Granholm highlighted the importance of both studies giving significant weight to the subject of societal considerations and impacts, with environmental justice and equity being of high priority to the Administration.
- Secretary Granholm recognized the challenge ahead for industry to provide a secure supply of oil and natural gas for domestic use and global trade while also being asked to reduce emissions simultaneously and called upon the NPC to continue supporting government in reaching a lower carbon future, and also invited the NPC to think about future study topics.

## Consideration of the Proposed Final Report of the NPC GHG Emissions Study.

- Ryan Lance, Chair of the Greenhouse Gas (GHG) Emissions Study Committee, and John Dabbar, Chair of the GHG Coordinating Subcommittee, presented an overview of the proposed final report, entitled *Charting the Course: Reducing Greenhouse Gas Emissions from the U.S. Natural Gas Supply Chain,* which was provided to the membership (in draft) in early April.
- Key highlights from the report include:
  - Abundant, affordable natural gas is the largest source of primary energy production in the United States and will continue to play a crucial role in the nation's energy and economic security.
  - Reducing emissions from the natural gas supply chain remains a challenge.
  - The United States can meaningfully reduce natural gas supply chain GHG emissions through five critical, interconnected elements:
    - Industry and operator actions;
    - Societal and community engagement;
    - Effective regulation and durable policy;
    - Innovative monitoring, measuring, reporting, and verification of emissions data; and
    - Market incentives.
  - Existing policies and actions are expected to result in a 63 percent decline in methane emissions from the natural gas supply chain by 2030 relative to 2020. However, existing policies will need additional efforts to reduce carbon dioxide (CO2), which the report expects to increase under the Energy Information Administration (EIA) Reference Case.
  - The greatest reductions will occur under the study's Technology, Innovation, and Policy (TIP) Pathway that implements all the recommendations in addition to other measures. Under the TIP Pathway, methane emissions will decrease by 70 percent, CO2 emissions will decrease by 32 percent, and total GHG emissions will decrease by 52 percent by 2050 relative to 2020.
- After the presentation and discussion, the Council membership approved the report unanimously, on a voice vote, and subject to final editing, for transmittal to Secretary Granholm.

## Consideration of the Proposed Final Report of the Hydrogen Energy Study.

- Mike Wirth, Chair of the Hydrogen Energy Study Committee, and Austin Knight, Chair of the Hydrogen Energy Coordinating Subcommittee, presented the proposed final report, entitled *Harnessing Hydrogen: A Key Element of the U.S. Energy Future,* which was provided to the membership (in draft) in early April.
- Key highlights of the report include:
  - To achieve the United States' 2050 net-zero goals, multiple technologies will be needed, including low-carbon intensity (LCI) hydrogen. LCI hydrogen could reduce about 8 percent of U.S. carbon emissions by 2050, and without it, the cost of reaching net-zero in the United States would increase by approximately \$160-\$260 billion, or around 0.5 to 1 percent of U.S. GDP, compared to alternatives.
  - Current policies begin to stimulate usage of LCI hydrogen but are insufficient to unlock adoption rates necessary to support the U.S. climate goals. To achieve the required 7x scaling over the existing hydrogen system, additional policies and actions are vital to promote investment and innovation, and to improve the cost competitiveness of LCI hydrogen.

- In the near term, LCI hydrogen will be produced primarily from natural gas with carbon capture and storage as the most cost-efficient and scalable production pathway, leveraging existing natural gas infrastructure. In the medium- and long-term, electrolytic hydrogen produced from renewable or lower-carbon electricity will scale as demand grows for increasingly lower carbon intensity hydrogen. Both pathways should be pursued as each has a critical role to play in achieving net zero.
- LCI hydrogen use will start in regions that have renewable electricity or natural gas resources, existing demand, infrastructure, or supportive policies. To accelerate deployment and expand the use of LCI hydrogen across the entire United States, additional federal policies, streamlined permitting, technology RD&D, and expansion of societal acceptance through realized community benefits and improved engagement practices will be needed.
- After the presentation and discussion, the Council membership approved the report unanimously, on a voice vote, and subject to final editing, for transmittal to Secretary Granholm.

## Remarks by the Honorable David M. Turk, Deputy Secretary of Energy.

- Deputy Secretary Turk also addressed the Council and reemphasized the appreciation expressed by Secretary Granholm, praising the study participants who contributed to the final reports for their time and effort.
- Deputy Secretary Turk reflected on the complex geopolitical challenges in the energy sector that have emerged since 2020 and recognized the role of industry in shaping responses to these challenges, stating that "the world is better off because the United States is an innovative and dynamic energy powerhouse." He emphasized the importance of all stakeholders continuing to work together "to make sure we're on the right track" to achieve the Administration's 2050 net-zero goals.
- Deputy Secretary Turk provided comments on the presentations of the GHG Emissions and Hydrogen Energy final reports. For GHG Emissions, he noted the immediate need to begin implementing recommendations to work towards reaching international methane emissions reduction goals. For Hydrogen Energy, he called upon the NPC to potentially provide dynamic feedback on the evolving technologies in the hydrogen marketplace to help inform DOE and Administration policies and enable at scale adoption.
- Deputy Secretary Turk also highlighted Secretary Granholm's request for the NPC, in collaboration with DOE, to explore future study topics and the modality of engagement, possibly including shorter term studies. Ideas he floated as potential topics of mutual interest included pathways to address future electricity growth, the timeliness of deploying carbon capture, utilization, and storage (CCUS), the importance of securing the critical minerals supply chain, and the translation of oil and gas industry expertise to further develop geothermal energy systems.

# Remarks by the Honorable Bradford J. Crabtree, Assistant Secretary for Fossil Energy and Carbon Management, U.S. Department of Energy.

• In concluding remarks from the Department, Brad Crabtree offered his "thank you" to everyone involved in the NPC studies and remarked that both reports are poised to impact government policies being rolled out under the Infrastructure Investment and Jobs Act and the Inflation Reduction Act. As examples, Assistant Secretary Crabtree cited GHG emissions measurement, monitoring, reporting, and validation in the natural gas sector, and the rollout of the hydrogen hubs and 45V tax credits.

## **Report of the NPC Finance Committee**

- Chair Armstrong provided the report of the NPC Finance Committee, in lieu of Byron Dunn, Chair of the Finance Committee, as he was not able to attend.
- The Finance Committee met the day before the Council meeting to review the NPC's firstquarter 2024 budget and confirmed that expenditures are currently on track with budget expectations.

# Report of the NPC Nominating Committee.

- On behalf of Committee Chair John Walker, Alan Armstrong presented the recommendations of the Nominating Committee as follows:
  - 2024 NPC Chair: Alan Armstrong.
  - 2024 NPC Vice Chair: Ryan Lance.

<u>2024 Agenda Committee</u>	<u>202</u>
Deb Caplan	
Bob Catell	
Willie Chiang	
Ray Hunt	
Jeff Miller	
Gretchen Watkins	
Bill Way	
Bill White	
Mike Wirth	
Dan Yergin, and	Ι
Vicki Hollub, Chair	

024 Appointment Committee John Christmann Paula Glover David Grzebinski John Hess Olivier Le Peuch Mike Linn Pierce Norton Scott Tinker John Walker, and Lorenzo Simonelli, Chair

- For the five 2024 "at-large" members of the NPC Cochairs' Coordinating Committee: Maryam Brown, Ed Crooks, Marilu Hastings, Tom Jorden, and Robin West.
- There being no further nominations from the floor, the Council unanimously elected the slate as proposed by the NPC Nominating Committee.

## Adjournment.

The 134th meeting of the National Petroleum Council was adjourned at 11:03 a.m. (E.D.T.).

The proceedings of the April 23, 2024, meeting of the National Petroleum Council are, up until the report of the NPC Finance Committee, available in video format. The video, full meeting transcript,

and Hydrogen Energy and GHG Emissions final study reports and presentation slides, along with other pertinent meeting documents, are available as separate attachments on the <u>NPC Meetings</u> <u>section of the Department of Energy website</u>. The Hydrogen Energy and GHG final study reports and presentation slides, as well as the meeting video, are additionally available at <u>www.npc.org</u>.

I hereby certify that, to the best of my knowledge, the foregoing minutes are accurate and complete.

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Alan S. Armstrong Chair National Petroleum Council