# The Payne Institute for Public Policy

#### PAYNE COMMENTARY SERIES: VIEWPOINT

EARTH . ENERGY . ENVIRONMEN

# The U.S. Can Help Heat Europe

by Brad Handler and Morgan Bazilian

Russia's invasion of Ukraine has led to calls for the U.S. to make a war time expansion of its hydrocarbon production. The idea is to help ease prices and to support energy security and energy diversification for Europe. Certainly, some of these calls belie a narrow commercial self-interest, while others are directed at supporting our allies. Importantly, and despite some of the rhetoric, the U.S. government isn't standing in the way of industry growth. Still, the government can and should help ease the industry's path to higher LNG production to help support European energy—and in particular, heating. As it does so, the U.S. can solidify a commitment to lowering carbon emissions and beefing up environment safeguards.

It should be stressed that the most important issue regarding the war in Ukraine is the loss of life of Ukrainians and our nation's focus needs to be on supporting Ukraine militarily. However,, energy issues are at the fore of the discussion, particularly as the U.S. and other countries consider imposing sanctions on Russian sales of oil and gas.

Three areas help frame the current situation. First, European natural gas prices were stunningly high even before the Russian troop build-up—and now have reached levels that were previously unfathomable. Second, Europe has been acutely aware of its need to diversify its energy resources for decades, even as the continent now <u>intensifies</u> its significant push to grow renewables and retires coal-fired power (and, selectively, nuclear). Third, the value of storage of energy to accommodate seasonal heating demand has emerged as a clear priority, which, given current technology can practically only be provided by liquefied natural gas (LNG) for the next 10-15 years.

What role, then, for the US natural gas sector? The industry's activity recovery from pandemic-induced lows has been somewhat curtailed by investors and creditors' demands for capital discipline (the industry had delivered inadequate financial returns for most of the prior 10 years). The recent surge in prices position oil companies to invest (significantly) more in growth while living within the capital strictures they have set for themselves. Most publicly-traded companies have implemented programs to return a % of cash flow to investors and to limit borrowings. Rather than spending behavior, the production response is now more likely to be compromised in 2022 by lack of availability of key equipment and/or crews until the services and equipment sector ramps up capacity.



Meanwhile, Liquefied Natural Gas (LNG) facilities are already operating more-or-less at full capacity. As LNG volumes have ramped, the commercial model has shifted away from long-term contracts and towards selling cargoes to the highest bidder, which has fluctuated between Asia and Europe in recent years. In other words, the market is not managed based on energy security or geopolitical concerns, but financial ones. Anticipating growth in Asian demand, the U.S. has already projects somewhere in the proposed or planning stages that sum to a  $\sim 75\%$  expansion of natural gas liquefaction capacity by 2030.

Government action, including on Federal lands, has not had a meaningful impact on activity or production (although select states' actions, including for example Colorado's raising of setback distances for drilling locations, have likely hampered development activity to some degree). Further, calls for the government to open up more Federal lands for leasing appear to ignore that there are over <u>9,000 unused permits</u> held by the industry, another 4,600 applications pending and that the Bureau of Land Management continues to issue permits regularly.

What has plausibly had a material impact, however, is the difficulty in getting natural gas pipelines approved and thus the uncertainty about being able to move the gas to market, particularly out of the Marcellus field of Western Pennsylvania and Northeast West Virginia. There have been successful opposition campaigns waged in the courts, based on the potential impact on water quality in affected communities, that have slowed or blocked the approvals of several pipelines, including Constitution, Pilgrim and Williams. The result has been "landlocked" natural gas, depressed regional prices and more subdued development effort for additional gas.

Prior to the war in Ukraine, the emerging focus for US LNG exporters to European markets had already been on methane and other emissions. Companies are beginning to pursue "responsible" gas certification — one example is offered by Cheniere Energy, the U.S.'s largest LNG exporter, which is implementing a carbon emission tagging system for its LNG shipments. The federal government can mandate a similar certification system as it expedites approvals for incremental LNG facilities.

And then for gas pipelines, government must create far greater clarity around the conditions for approval for the industry. The Federal Energy Regulatory Commission (FERC) continued this process last month, releasing <u>new policy</u> that mandates review of both the economic need and the environmental impact of any proposed pipeline or LNG plant with estimated emissions of at least 100,000 metric tons per year. However, dissenting FERC commossioners and pipeline industry representatives have argued that the proposed rules do not provide adequate clarity and have challenged the FERC's ability and authority to assess emissions upstream and downstream of the pipeline itself. Both concerns must be addressed, ideally legislatively, with European customers given significant weight in terms of "economic need."

Expanding gas/LNG infrastructure does "lock in" carbon-emissions longer than the 10-15 years we are highlighting for European demand. However, global demand for natural gas will almost certainly persist for far longer than it does in Europe, particularly given the twin goal of expanding energy access in developing countries. In other words, we expect this additional LNG to be directed to Asia and Africa in the longer term and to help set carbon footprint standards for those regions as well.



Federal and local policy can and should align to promote responsible LNG expansion. Managed correctly, natural gas export can help give our allies in Europe more energy flexibility and energy access as it enhances commercial opportunity for the oil and gas industry, while not compromising the global imperative to decarbonize as fast as possible.



# The Payne Institute for Public Policy

COLORADOSCHOOLOFMINES

## **ABOUT THE AUTHORS**

### Brad Handler Payne Institute Program Manager, Sustainable Finance Lab, and Researcher

Brad Handler is a researcher and heads the Payne Institute's Sustainable Finance Lab. He is also the Principal and Founder of Energy Transition Research LLC. He has recently had articles published in the Financial Times, Washington Post, Nasdaq.com, Petroleum Economist, Transition Economist, WorldOil, POWER Magazine, The Conversation and The Hill. Brad is a former Wall Street Equity Research Analyst with 20 years' experience covering the Oilfield Services & Drilling (OFS) sector at firms including Jefferies and Credit Suisse. He has an M.B.A from the Kellogg School of Management at Northwestern University and a B.A. in Economics from Johns Hopkins University.

### Morgan Bazilian Director, Payne Institute and Professor of Public Policy

Morgan Bazilian is the Director of the Payne Institute and a Professor of public policy at the Colorado School of Mines. Previously, he wD.as lead energy specialist at the World Bank. He has over two decades of experience in the energy sector and is regarded as a leading expert in international affairs, policy and investment. He is a Member of the Council on Foreign Relations.

# The Payne Institute for Public Policy

COLORADOSCHOOLOFMINES

### ABOUT THE PAYNE INSTITUTE

The mission of the Payne Institute at Colorado School of Mines is to provide worldclass scientific insights, helping to inform and shape public policy on earth resources, energy, and environment. The Institute was established with an endowment from Jim and Arlene Payne, and seeks to link the strong scientific and engineering research and expertise at Mines with issues related to public policy and national security.

The Payne Institute Commentary Series offers independent insights and research on a wide range of topics related to energy, natural resources, and environmental policy. The series accommodates three categories namely: Viewpoints, Essays, and Working Papers.

For more information about the Payne Institute please visit: <u>https://payneinstitute.mines.edu/</u>

or follow the Payne Institute on Twitter or LinkedIn:



**DISCLAIMER:** The opinions, beliefs, and viewpoints expressed in this article are solely those of the author and do not reflect the opinions, beliefs, viewpoints, or official policies of the Payne Institute or the Colorado School of Mines.