Global Counsel

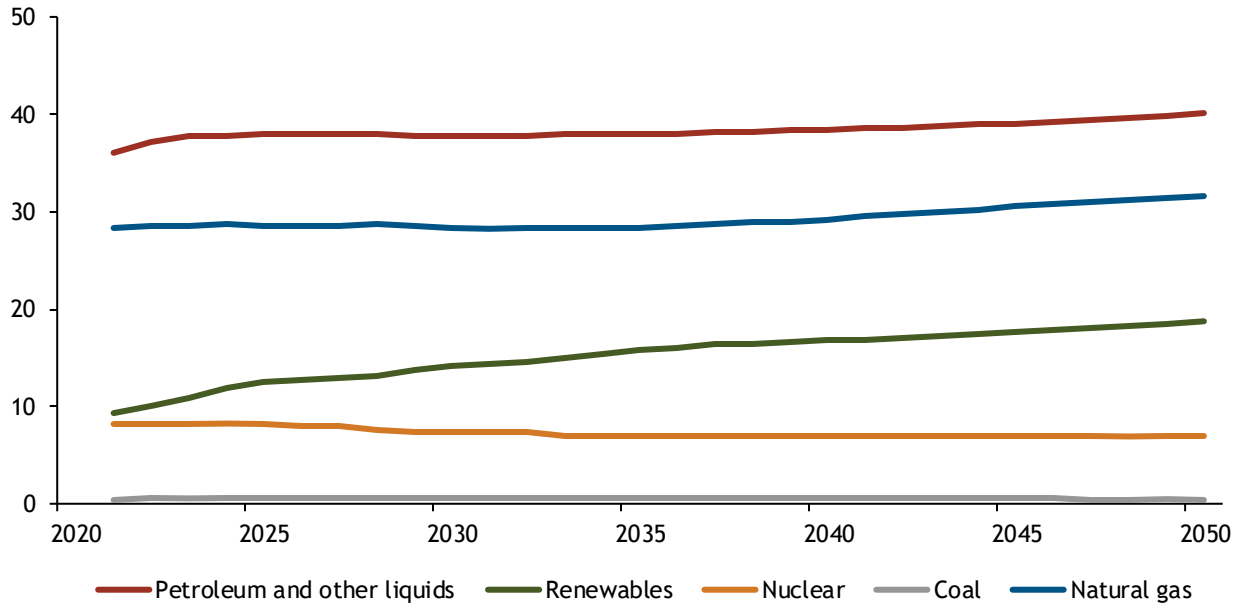
The reality facing the energy transition

Blog post by Associate Ben Basset and Adviser Stephanie Grumet, 24 May 2022

Although the Biden administration has prioritized the US energy transition like no previous administration has, we are seeing a surge in fossil fuel extraction, export, and use. The Russian invasion of Ukraine and pandemic-related supply chain bottlenecks have inflamed US fossil usage. But the geopolitical imperative to export energy to US allies held captive to Russian oil and gas is unlikely to ebb soon, and---for now at least---the way to lower gas prices is to bring more oil to market. Putting these issues aside, the US (and the world) does not have the renewable capacity to completely replace fossil fuels today. Thus, learning to live with fossil appears the most likely path forward, heightening the importance of the Biden administration's proposed and forthcoming regulations ensuring extraction, production, distribution, and use is as clean as practicably possible.

EIA projects oil and natural gas will remain a critical component of the US energy consumption through 2050

Energy consumption by fuel (in quadrillion British thermal units)



Source: EIA

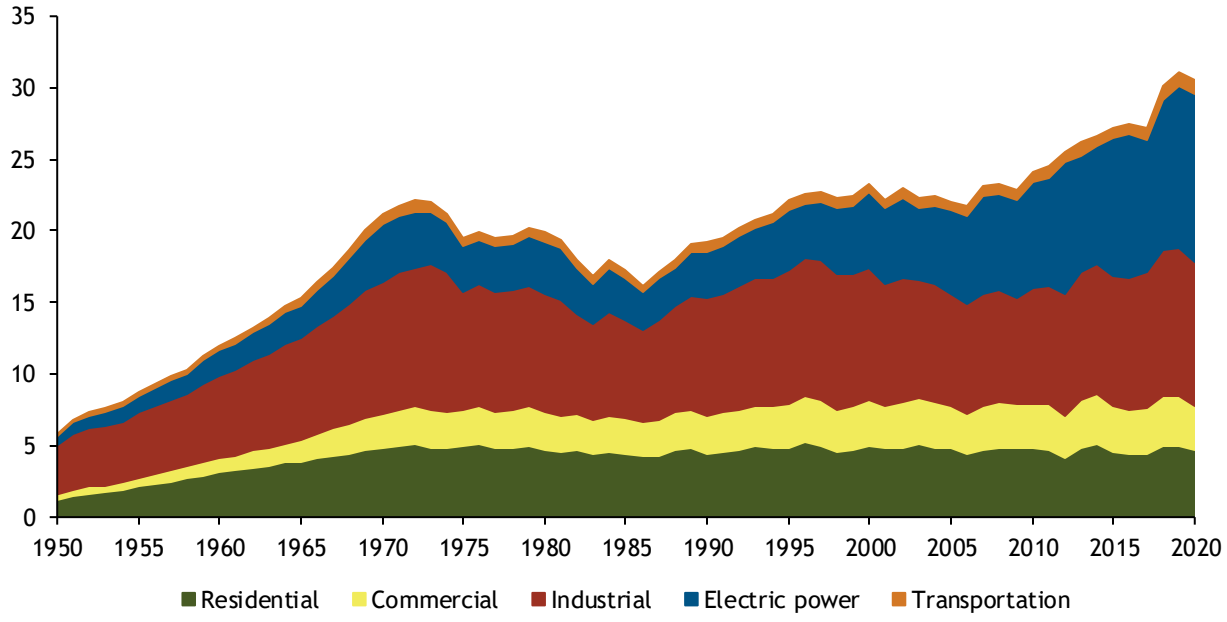
Russia's invasion of Ukraine scrambled the global energy transition and reinvigorated efforts to increase energy independence. But until zero carbon energy capacity can be adequately scaled to support Europe's energy demands, traditional energy sources will continue to play an important role. In the near-term, Europe needs a stable energy supply. The US has already upped its liquified natural gas (LNG) exports to Europe, but that will not be enough. This is not to suggest that the US

should dramatically increase its oil exports – which is highly unlikely, especially while Biden is in office. But if Europe (and the US, for that matter) have no other choice at the moment but to rely on fossil fuels, it would be objectively better to rely on cleaner producers working under stricter environmental requirements than producers who are not.

Strict environmental requirements in the US, for example, have come in the form of the EPA's proposed methane rule. The rule, which is expected to be finalized before the end of 2022, would bring roughly one million new and existing wells under EPA methane regulation. Sources will have to implement comprehensive monitoring and leak detection and repair (LDAR) programs to reduce their methane emissions. The EPA estimates the rule would reduce 41m tons of methane emissions from 2023-2035. Although implementation could be delayed via litigation, the rule will be a catalyst for reducing methane emissions in the industry.

In addition to production, there are also efforts to clean up natural gas combustion. Natural gas has eclipsed coal as the largest source of US power, contributing 38% of total net electricity generation; consumption has increased 50% since 2017.

US natural gas consumption by sector, 1950-2020 (in trillion cubic feet)



Source: EIA

Consequently, natural gas is at centre stage in the administration's climate fight. In an April 2022 white paper, the EPA outlined strategies to reduce CO2 emissions from natural gas generators, many of which have been well received by the private sector, including increasing efficiency and integrating renewables (in use at the Martin Next Generation Solar Energy Center, which combines electric generating units and a solar thermal array), utilizing carbon capture (in use at the Petra

Nova Parish plant in Washington, the Boundary Dam plant in Canada, and the Bellingham, Massachusetts plant), and co-firing with hydrogen or ammonia to reduce emissions (in use at the Long Ridge Energy Generation Project in Hannibal, Ohio, which is being fired with a 5% hydrogen blend with plans to burn 100% hydrogen by 2030).

But despite its intent to regulate, the EPA's ability to regulate greenhouse gas (GHG) emissions coming from the power sector could be curtailed by an impending decision by the Supreme Court. In January 2021, the DC Circuit Court reversed a lower court decision squashing EPA's authority to regulate the power sector by imposing an emissions trading rule, which was subsequently appealed. The Supreme Court took up the appeal in *West Virginia vs. EPA*, sparking fears that the Court would use the case to overturn *Massachusetts vs. EPA*, which granted the EPA authority to regulate GHGs. The Supreme Court's 6-3 majority could rule that the EPA does not have the authority to regulate GHG emissions under the Clean Air Act, which would be a major blow to the Biden administration and the EPA's ongoing efforts to reduce US GHG emissions. If the Supreme Court rules against the EPA, the agency will have to tackle climate-related emissions using other tools.

US oil and gas industry GHG emissions increased 42% over the past decade, in large part due to production increases. But voluntary efforts to shave emissions and meet net zero targets have also increased. Progress will continue given unrelenting public and regulatory pressure, although the Supreme Court could slow this progress if the EPA's ability to directly regulate GHGs is overturned. But regardless, overall efforts are leading to a cleaner industry in the US, especially when compared to countries like Venezuela or Angola. And until viable alternatives and new technologies become commercially available, the industry will remain a critical component of the US and global energy mix.