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On Green Recovery Plans for the COVID-19 Crisis

How Green Will Europe's Recovery Be?

Practical and geopolitical considerations for US policymakers

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Chairman Keating, Ranking Member Kinzinger, distinguished members of the Subcommittee,

I thank you for this opportunity to share my views on the implications of the European Union's (EU's) European Green Deal on geopolitics, energy security, and transatlantic relations.

My central message is that, as with many other EU initiatives, there is a mismatch between the ambitions and the tools and policy available to meet those ambitions. Whether the EU achieves its decarbonization goals and what the unintended consequences of such efforts will be depends largely on factors outside of the EU's control. That said, the initiative highlights the need for the United States to engage constructively on energy policy with our European partners – not least because many of the issues at stake have far-reaching geopolitical ramifications.

1. European Green Deal and its significance

In her State of the Union (SOTEU) address to the European Parliament on September 16, 2020, the European Commission's (EC's) president Ursula von der Leyen reiterated the EU's commitment to "becoming the first climate-neutral continent by 2050,"[1] articulated already in the Commission's European Green Deal, a strategic document adopted in December 2019.[2] To that end, "the European Commission is proposing to increase the 2030 target for emission reduction to at least 55 percent"[3] relative to its 1990 levels – up from the previous binding target of a 40-percent reduction.

While the European Green Deal itself is very light on specifics, SOTEU gives an indication of the Commission's emphasis on the rollout of hydrogen-based energy technologies, renovations of buildings, and creating an electric charging point infrastructure.

Moving from the aspirational to the concrete, von der Leyen vowed to roll out the legislation needed to meet the 55-percent target, including a strengthened emissions trading scheme, by the summer of 2021. Most significantly the EU is directing a significant part of its post-pandemic recovery fund (Next Generation EU, NGEU), worth €750 billion in loans and grants to member states, and an increased seven-year Multi-Annual Financial Framework (MFF) for 2021-2027 of €1,0743 billion to finance the investment into emission reductions.[4]

To provide perspective on the figures, recall that the EU's GDP in 2019 was just below €14 trillion. On an annual basis, the overall EU budget, including NGEU, will still account for less than 2 percent of the EU's GDP. While the deal has been applauded as a substantial breakthrough, partly because it involved the creation of a common European debt facility, its macroeconomic impact will be small. Of the total spending package, at least 30 percent – or €548 billion over the course of 7 years – is to be dedicated to "climate action." But pre-COVID-19, the EU's ambition was already to allocate over €500 billion for climate and environment under the 2021-2027 MFF, while

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[1] European Commission, *State of the Union Address 2020*, (Brussels: European Commission, 2020), 9, https://ec.europa.eu/info/sites/info/files/soteu_2020_en.pdf.

[2] European Commission, *The European Green Deal*, (Brussels: European Commission, 2019), https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1596443911913&uri=CELEX:52019DC0640#document1.

[3] *State of the Union Address 2020*, 9.

[4] European Council, *Conclusions – 17, 18, 19, 20 and 21 July 2020*, (Brussels: European Council, 2020), https://www.consilium.europa.eu/media/45109/210720-euco-final-conclusions-en.pdf.

mobilizing further investment by member states, the European Investment Bank, and the private sector, mobilizing a total of €1 trillion over the next decade.[5] As a result, in spite of the significant fanfare for the new budget deal and in spite the more ambitious emissions target for 2030 announced by von der Leyen, there has not been a dramatic shift in policy and spending.

2. What is left out and why it matters

What the European Green Deal and the financial package for 2021-2027 leave out is equally as important as their stated ambitions and the seemingly impressive fiscal firepower. In particular, the EU does not control national energy and environmental policies. Neither does the European Green Deal involve a detailed plan of decarbonization – other than the EU's sectoral strategies, e.g. to increase the share of hydrogen-based technologies,[6] promote "circular economy" (i.e. reduce carbon footprint and waste involved in electronics, batteries, textiles, etc.),[7] and energy technologies more generally.[8]

If "the ultimate goal of [climate-friendly energy policy] is to develop non-carbon energy supplies at unsubsidized costs less than those using fossil fuels,"[9] the EU's efforts do not give much indication of how the continent will get there. While hydrogen-based solutions are frequently singled out, including in SOTEU where von der Leyen announced the creation of European 'Hydrogen Valleys,' by the EC's own admission, "neither renewable hydrogen nor low-carbon hydrogen, notably fossil-based hydrogen with carbon capture, are cost-competitive" at the moment[10] and will require significant investment to research and development (R&D) and to infrastructure. Just how far hydrogen-based solutions can get is therefore an open question.

Considerable uncertainty surrounds the precise ways through which the resources are going to be allocated and the outcomes that will be attained. NGEU, for instance, consists of grants and loans to national governments, which will use the funds in a manner consistent with their own national energy policies. By October 2020, member states are expected to submit their spending plans to the EC, which will assess the extent to which they contribute to the EU's overall climate (and digital) goals. Yet, that is not a technical exercise with hard-and-fast rules but rather a political

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[5] European Commission, Press Corner, "The European Green Deal Investment Plan and Just Transition Mechanism explained," January 14, 2020, https://ec.europa.eu/commission/presscorner/detail/en/qanda_20_24.

[6] European Commission, *A hydrogen strategy for a climate-neutral Europe*, (Brussels: European Commission, 2020), https://ec.europa.eu/energy/sites/ener/files/hydrogen_strategy.pdf.

[7] European Commission, *A new Circular Economy Action Plan For a cleaner and more competitive Europe*, (Brussels: European Commission, 2020), https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583933814386&uri=COM:2020:98:FIN.

[8] European Commission, *Towards an Integrated Strategic Energy Technology (SET) Plan: Accelerating the European Energy System Transformation*, (Brussels: European Commission, 2015), https://setis.ec.europa.eu/system/files/integrated_set-plan/communication_set-plan_15_sept_2015.pdf.

[9] Gwyn Prins et al., *The Hartwell Paper: A new direction for climate policy after the crash of 2009*, (London: Institute for Science, Innovation & Society, University of Oxford and LSE Mackinder Programme, London School of Economics and Political Science, 2010), 5, http://sciencepolicy.colorado.edu/admin/publication_files/resource-2821-2010.15.pdf.

[10] *A hydrogen strategy for a climate-neutral Europe*, 4. The current ambition is to install 40GW worth of renewable hydrogen-based projects by 2030, while only 1.5-2.3 GW are currently under construction or announced. As a proportion of the EU's energy mix, the EC envisage an increase of the share of hydrogen from 2-4 percent at the present to 13-14 percent in 2050.

balancing act. Different countries have different energy mixes and face different trade-offs in scaling up renewables and phasing out fossil fuels. As a result, how exactly the EU's broadly conceived plans will work on the ground remains an open question.

2.1 R&D, and helping vulnerable regions transition

If existing technologies are not quite there yet, more R&D will be needed – and that is where one of the main gaps in the EU's plans lies. While 35 percent of the R&D budget under the EU's flagship R&D program Horizon Europe is dedicated to climate issues, the budget itself was slashed from the original proposal from last year of €100 billion[11] to €75.9 billion.[12] Likewise, the final agreement among member states involves a reduction of the budget for facilitating transitions of regions with heavy presence of polluting industries under the Just Transition Fund was reduced to just €17.5 billion from the originally proposed €40 billion. The Strategic Investment Facility, originally envisaged at €31 billion, to be used also toward industrial transitions, was eliminated altogether.[13]

The agreement was part of the deal struck under the pressure from member states, particularly in Central and Eastern Europe, which did not want to see the amounts of their structural funds reduced and which pressed for funds whose use would be as unrestricted as possible.

2.2 What role for nuclear energy?

The funding allocated to support decarbonization within NGEU and MFF excludes investment into additional nuclear capacity. Indeed, the role of nuclear power in the EU's energy mix decreased in the past decade and a half. There are, however, considerable differences among member states in the role envisaged by nuclear power and its role in tackling the issue of climate change, and the EU itself plays only a very limited role in shaping national policies under the Euratom Treaty. As a result, some countries have never relied on nuclear power to begin with (Austria), and others have phased out nuclear power completely (Italy) or are in the process of doing so (Germany).

On other end of the spectrum, nuclear power constitutes over 70 percent of France's energy mix – notwithstanding the pledge made initially by president Francois Hollande and later by Emmanuel Macron to reduce its share to 50 percent by 2025.[14] In February this year, President Macron called

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[11] European Commission, "The Commission's proposal for Horizon Europe," accessed September 18, 2020, https://ec.europa.eu/info/horizon-europe-next-research-and-innovation-framework-programme/commissions-proposal-horizon-europe_en. In comparison, in 2020 US Department of Energy (DOE) is spending $2.3 billion to secure energy independence and fund innovations and $5.5 billion in science funding for R&D and DOE's National Laboratories.

[12] *Conclusions – 17, 18, 19, 20 and 21 July 2020*, 18.

[13] See also Karsten Neuhoff and Johanna Lehne, "How 'green' the EU recovery is depends on member states," *Climate Home News*, July 24, 2020, https://www.climatechangenews.com/2020/07/24/green-eu-recovery-depends-member-states/.

[14] Adrien Sénécat, "La baisse du nucléaire à 50 % en 2025, une promesse jamais suivie de moyens [The reduction of nuclear power to 50% in 2025, a promise never followed up on]," *Le Monde*, November 8, 2017, https://www.lemonde.fr/les-decodeurs/article/2017/11/08/la-baisse-du-nucleaire-a-50-en-2025-une-promesse-jamais-suivie-de-moyens_5212107_4355770.html.

nuclear power "the most decarbonized non-intermittent production of energy in the world"[15] and the country's hydrogen strategy relies primarily on the electrolysis of clean hydrogen using nuclear power – not solar or wind as in Germany.[16]

In Sweden, where nuclear power accounts for over 30 percent of the overall energy mix, the public opinion has gradually moved in support of it, and the main center-right party, Moderaterna, opposes the phasing out of existing capacities.[17] Czech Prime Minister Andrej Babiš unsuccessfully pushed for nuclear power to be categorized as a "clean" energy source, eligible for funding under NGEU.[18] The Czech Republic is planning to build a new reactor in Dukovany, with the tender to be awarded in 2022.[19] Romania, which recently scrapped its partnership with China, is planning to build nuclear reactors 3 and 4 at Cernavoda. Hungary is proceeding with the construction of the Paks II reactor by Rosatom, and in Finland, a Finnish-Russian consortium is going ahead at Olkiluoto 3.[20]

2.3 Can Europe overcome its addiction to Russian gas?

Another question that the EU's decarbonization strategy leaves unanswered is the role of natural gas in its energy mix and particularly the role of Russia as a major supplier. Since the 1990s, the bloc's reliance on natural gas as an electricity-generating fuel has increased as it became a more economical and comparatively cleaner alternative to coal. Because fracking has never taken on in Europe to the same extent as in the United States and Canada, natural gas imports, 40 percent of which come from Russia, remain significant.[21] Russia has been using natural gas infrastructure as a means of building leverage over Europe – and also as a means of putting pressure on post-2014 Ukraine.

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[15] Luna Gay-Padoan, "'Nous avons une chance historique, c'est le nucléaire', selon Emmanuel Macron ["We have a historic chance, namely nuclear power," according to Emmanuel Macron]," *TV5Monde*, February 12, 2020, https://information.tv5monde.com/info/nous-avons-une-chance-historique-c-est-le-nucleaire-selon-emmanuel-macron-346444.

[16] Anna Feitz, "Hydrogène: la France détaille son plan à 7 milliards d'euros [Hydrogen: France details its plan to 7 billion euros]," *LesEchos*, September 8, 2020, https://www.lesechos.fr/industrie-services/energie-environnement/hydrogene-la-france-detaille-a-son-plan-a-7-milliards-deuros-1240547.

[17] "Kraftigt ökat stöd för kärnkraft i Sverige [Significantly increased support for nuclear power in Sweden]," *Analysgruppen – Energiföretagen*, November 22, 2019, https://www.analys.se/wp-content/uploads/2019/11/20191122-analysgruppen-opinion-pressmeddelande.pdf.

[18] Aneta Zachová, "Ako premiér Babiš nepresadil jadro ako zelený zdroj energie [As Prime Minister, Babiš did not convince the EU to label nuclear power as a green source of energy]," *Euractiv*, April 29, 2020, https://euractiv.sk/section/energetika/opinion/ako-premier-babis-nepresadil-jadro-ako-zeleny-zdroj-energie/.

[19] Hana Jakubcová, "Kdo dostaví blok v Dukovanech? Odpověď bude v roce 2022 [Who will build the block in Dukovany? The answer will be in 2022]," *Třebíčský deník*, April 29, 2020, https://trebicsky.denik.cz/zpravy_region/kdo-dostavi-blok-v-dukovanech-odpoved-bude-v-roce-2022-20200429.html.

[20] Anne Kauranen, "Finland's long-delayed Olkiluoto three nuclear reactor granted operating licence," *Reuters*, March 7, 2019, https://www.reuters.com/article/us-finland-nuclear/finlands-long-delayed-olkiluoto-three-nuclear-reactor-granted-operating-licence-idUSKCN1QO1IC.

[21] "Shedding light on energy in the EU - A guided tour of energy statistics," *Eurostat*, April 30, 2020, https://ec.europa.eu/eurostat/cache/infographs/energy/bloc-2c.html

The South Stream pipeline, an explicit effort to circumvent Ukraine, was stopped by the EC on competition policy grounds.[22] Its replacement, Turk Stream, together with Nord Stream and the almost-completed Nord Stream 2 pipeline create sufficient redundancy for Russia to be able to cut off supplies to Ukraine (or Belarus) without compromising its ability to supply natural gas to the EU. Although low gas prices and the abundant spare capacity make the economic rationale of such pipelines dubious, to say the least, Germany remains committed to the Nord Stream 2 project – notwithstanding US sanctions.[23]

As an aside, the problematic geopolitics of natural gas goes some way towards explaining the reliance of Poland on the highly polluting and uneconomical coal and lignite, which jointly account for almost three quarters of the country's energy mix.[24] Poland has also openly defied the goal of carbon neutrality by 2050. The challenge of dependence on Russian supplies has also prompted groups of countries into investing into alternative sources of supply and interconnectors reducing Russia's leverage. The Three Seas Initiative in particular is envisaging the construction of an LNG terminal in Krk, Croatia, with a connecting pipeline through Hungary and Slovakia; a pipeline that connects Lithuania, Latvia, and Estonia to the wider European gas network (Gas Interconnection Poland-Lithuania, GIPL), a Bulgaria-Romania-Hungary-Austria (BRUA) pipeline, as well as a Baltic pipeline to Norway. How feasible these projects are is an open question. Yet, their proliferation suggests that even with the EU's commitment to decarbonization natural gas is not going anywhere. It also reveals strategic tensions within the EU between countries that see Russia energy supplies as a geopolitical challenge and those that believe that energy and politics can be neatly separated.

3. The United States needs to engage

While the EU as a bloc places decarbonization high on its list of priorities, considerable uncertainty surrounds the actual effects that the European Green Deal and spending priorities within the new MFF and NGEU will have on the ground. The imperative for the United States is to engage, however. It is in the US interest that the EU makes significant strides toward reducing its own carbon footprint and that its energy sector extricates itself from its current dependency on Russian oil and gas. Moreover, it is manifestly in the US interest that the Chinese regime does not expand its presence in European energy sectors.[25] That will require a multiprong approach, including:

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[22] Arno Behrens, "The declared end of South Stream and why nobody seems to care," *Centre for European Policy Studies*, December 5, 2014, https://www.ceps.eu/wp-content/uploads/2015/01/AB%20Southstream%20Pipeline.pdf.

[23] Guy Chazan, "Germany offered €1bn for gas terminals in exchange for US lifting NS2 sanctions," *Financial Times*, September 16, 2020, https://www.ft.com/content/3d028b63-31da-450e-ae73-13b25ecd0032. According to the Financial Times, Germany's finance minister Olaf Scholz even "said Germany would increase its financial support for LNG infrastructure and import capacities 'by up to €1bn' in exchange for the US 'allow[ing] for the unhindered construction and operation of Nord Stream 2'."

[24] Anna Mikulska and Eryk Kosinski, "Poland's love affair with coal: can the EU do anything about it?," *Energy Post*, April 5, 2018, https://energypost.eu/explaining-polands-coal-paradox/.

[25] Prominently, China Three Gorges, a state-owned major electricity enterprise, started investing into Energias de Portugal, an integrated electricity operator and the country's largest firm in 2011. It currently holds a controlling 28.3 percent stake (alongside China Ningbo International Corporation Co. Ltd., another Chinese state-owned investment company) in 2012, State Grid of China acquired 25 percent of the equity of REN, the country's electricity grid utility. In 2016, China State Grid acquired a 24 percent stake in Independent Power Transmission Operator (ADMIE) in

A. Support for US energy companies operating in Europe through the Export-Import Bank and other tools. Westinghouse's nuclear fuel fabrication plant in Västerås, Sweden, remains a marginal presence relative to Russian producers. Several US companies, including NextEra, are starting pilot projects involving hydrogen. As part of US economic diplomacy, connections between US and EU companies and joint ventures ought to be encouraged, particularly in areas where the likely alternatives feature Chinese companies, as in solar.

B. The United States ought to provide appropriate support to projects of LNG terminals in Europe, regardless of whether those end up benefiting US exporters of LNG in particular or suppliers from other countries, most notably Nigeria and the Gulf countries. Diversification away from Russia is in and by itself desirable.

C. Support for common R&D projects, involving US and EU research organizations and the private sector. This could come in the form of joint grants by the US Department of Energy and Horizon Europe for US-EU research consortia.

D. (Friendly) pressure on our European partners to avoid steps that compromise both EU and US strategic interests and the EU's efforts at decarbonization – such as the Nord Stream 2 pipeline or large Chinese investments into European energy infrastructure – up to and including the use of sanctions under CAATSA or PEESA/NDAA.

Thank you.

Greece. See: Madi Sarsenbayev and Nicolas Véron, European versus American Perspectives on the Belt and Road Initiative, *Peterson Institute for International Economics*, March 29, 2020, https://www.piie.com/sites/default/files/documents/sarsenbayev-veron2020-04.pdf.