EU announces plans to classify nuclear power and natural gas as green technologies

- **Gas and nuclear are to be included within the limits set by the EU Taxonomy Regulation.** On 31 December 2021, the European Commission (EC) sent a draft legal act about the role of nuclear energy and natural gas in the EU taxonomy to EU member states. The draft suggests that, subject to certain conditions, both transition technologies be classified as climate friendly according to the EU taxonomy. To be deemed green, new nuclear plants must receive construction permits before 2045, and projects must have a plan, funds and a site where radioactive waste produced by the plant can be safely disposed of. Investments in natural-gas power plants can be deemed green if their carbon intensity is below 270g of CO2/kWh, if the plants replace more-polluting fossil-fuel plants and if there is a plan to switch to low-carbon gases (e.g. hydrogen) by end-2035. Furthermore, new natural-gas power plants must receive a construction permit by end-2030.
- **Rejection of the draft is rather unlikely**. The Platform on Sustainable Finance and the Member States Expert Group on Sustainable Finance will have until 12 January to provide their contributions. Afterwards, the EC will formally adopt the complementary delegated act in January and send it to co-legislators for their scrutiny and possible objection within four months. Rejection of the draft would require a so-called reinforced qualified majority of the member states or a majority in the European Parliament that oppose the draft. Therefore, we assume rejection of the draft is rather unlikely.
- **Nuclear generators are likely to be more affected than gas generators.** The inclusion of natural-gas and nuclear activities in the EU taxonomy will allow utility companies to finance future major gas or nuclear projects and will also have an impact on these companies' strategies. Sustainable financing opportunities for gas network operators will also be affected by the handling of gas activities under the EU taxonomy. However, compared to power generators, we think a greater part of their activity will fulfill the screening criteria of the taxonomy. In the future, we think an increasing share of gas network operators' infrastructure is likely to be used for green hydrogen transmission and storage. As green hydrogen is supported by the EU taxonomy, operators will be able to use sustainable financing for these activities.
- **Classification of nuclear and gas will influence financial costs and strategy.** Within our utility coverage, EDF, CEZ and Vattenfall have the strongest focus on nuclear-based power generation. Due to Germany's plan to phase out of nuclear power by the end of this year, the outcome will be irrelevant for EnBW and RWE. With regard to gas-based power generation, Naturgy, Engie, RWE and Enel have the greatest exposure. We expect the impact of this on the gas-fired power generators within our coverage to be generally lower, although their transformation process would also be hampered by less-attractive financing terms.

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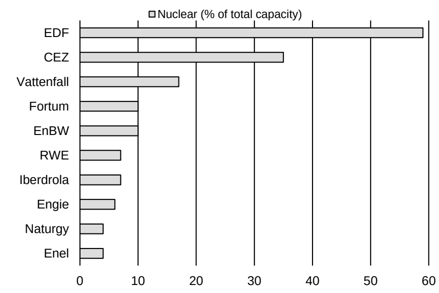
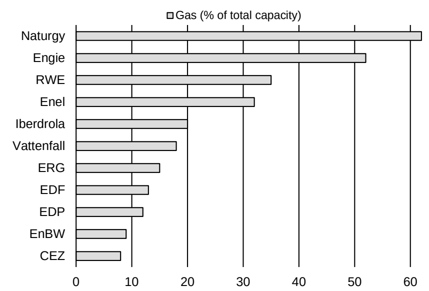
UTILITIES WITH NUCLEAR EXPOSURE



Source: company data, UniCredit Research

UTILITIES WITH GAS EXPOSURE



Source: company data, UniCredit Research

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Nuclear and natural gas are to be included in the EU taxonomy

A complementary delegated act will cover certain gas and nuclear activities

After it was again delayed on 22 December, the highly anticipated announcement on which energy sources can be classified as sustainable for investment purposes was finally drafted by the EC on 31 December 2021. Following heavy debate for months, it looks like the EC has found a compromise that is sufficiently acceptable so that no country can organize a majority against it. The draft suggests that, subject to certain conditions, both nuclear and natural gas be classified as climate friendly according to the EU taxonomy. To be deemed green, new nuclear plants must receive construction permits before 2045, and projects must have a plan, funds and a site where radioactive waste they produce can be safely disposed of. Investments in natural-gas power plants can be deemed green if their carbon intensity is below 270g of CO2/kWh, if the plants replace more-polluting fossil-fuel plants and if there is a plan to switch to low-carbon gases (e.g. hydrogen) by end-2035. Furthermore, new natural-gas power plants must receive a construction permit by end-2030.

Background: The EU taxonomy is the first and most important measure of the EU's Action Plan on Sustainable Finance, which was launched by the EC in March 2018. The objective of the EU taxonomy is to channel investment into essential technologies and projects to achieve European climate goals and carbon neutrality by 2050. In June 2021, the EC adopted a delegated act on the first two of six environmental objectives (see our Sector Flash - Green Bonds: EU Taxonomy approved with key changes, April 2021) established by the EU taxonomy (climate-change adaptation and climate-change mitigation). Assessment of gas and nuclear activities was the most controversial and was therefore delayed; it was to be addressed in a complementary delegated act.

The next steps: The draft was sent to the Platform on Sustainable Finance and the Member States Expert Group on Sustainable Finance, which will now have until 12 January to provide their contributions. Afterwards, the EC will formally adopt the complementary delegated act in January and send it to co-legislators for their scrutiny and possible objection within four months (with a potential extension of another two months). Rejection of the draft would require a so-called reinforced qualified majority of member states (at least 72% of member states [i.e. at least 20 member states], representing at least 65% of the EU's population) or a majority in the European Parliament that oppose the draft. We expect the now published draft by the EC is a compromise draft that is sufficiently acceptable so that no country can organize a majority against it. Therefore, we assume that rejection of the draft is rather unlikely. Given these next steps, the complementary delegated act should enter into force no later than August of this year and be applied from 1 January 2023, as long as there are no objections.

Our view: This proposal has been delayed multiple times. In our view, this is not surprising given the ongoing discussion about controversies, allegations of green washing, etc. It is a highly political and emotional topic, with the EU's two biggest members at the heart of the debate: France, which is heavily dependent on and pushing for nuclear energy to be deemed green, and Germany, which had been pushing for gas to be considered a green investment (although this has been complicated by Germany's new coalition government). Setting clear guidelines (e.g. requiring a disposal plan for radioactive waste) and timelines (e.g. switching to low-carbon gases by end-2035) is, in our view, a good compromise to foster a transition into a carbon-neutral economy while, at the same time, ensuring security of energy supply. However, the requirement that a commitment be made to switch to renewable or low-carbon gas by end-2035 is likely to be too strict for many operators to adhere to. Furthermore, it is difficult to assess today whether the use of low-carbon gases will be economically viable by 2035. For this reason, we assume that individual countries will have to resort to further incentives to promote investment in gas-fired power plants.

Decision will increase ESG bond supply

From a green bond point of view, deeming these two activities as acceptable green energy sources will positively contribute to the fast growth of sustainable bonds. According to a speech by EC Commissioner Kadri Simson at the World Nuclear Exhibition in November 2021, more than ten EU member states are planning about EUR 400bn in investment in new capacity to be installed by 2050 to keep roughly the same nuclear-generation capacity as today. At the same time, we assume the phasing out of coal-fired power plants will require additional market-based deployment of 15-25GW of gas power plants across the EU. We assume that this could translate into EUR 25-40bn of investment in gas power plants by 2032. We estimate that parts of the investment required will be financed by corporate bonds and by green bonds, if they are eligible.

Regarding accusations of green washing, we assume that most investors to have already made up their minds as to whether these activities should be considered green and included in their portfolios or not. Therefore, we do not expect the decision to have a major impact on the investment guidelines of dedicated private-sector green investors, but it might, of course, influence how public subsidies and promotional loans are deployed.

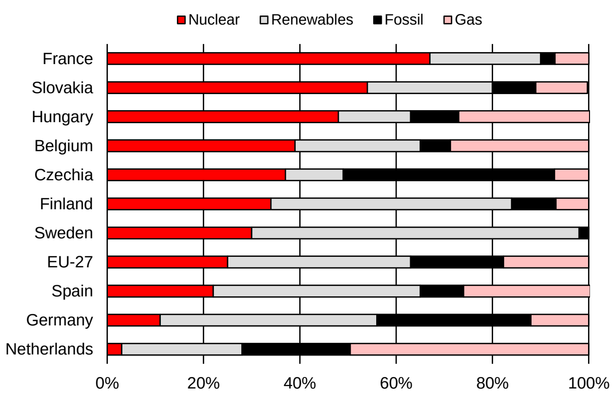
Why gas and nuclear activities are controversial

The NECPs of several EU member states include nuclear power as a transition technology

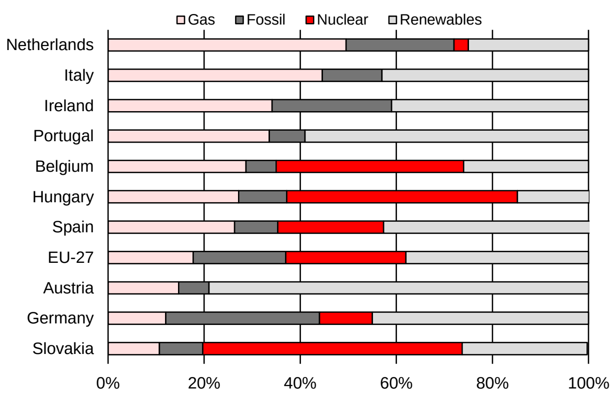
The controversial discussion of gas and nuclear power is largely due to the different importance placed on these technologies within the national energy and climate plans (NECPs) of individual EU member states. This again is also linked to the current electricity mix in individual countries. The left chart below lists EU countries according to their exposure to nuclear energy. The ranking is led by France, Slovakia, Hungary and Belgium. Nuclear generation is expected to decline in the years to come as countries phase out nuclear power – by the end of the current year in Germany, by 2025 in Belgium and by 2030 in Spain. Given the high maintenance capex and nuclear-waste recycling costs associated with nuclear power generation, financing opportunities for such operators will remain important. Therefore, countries with a higher share of nuclear power are likely to to promote the inclusion of this technology in the EU taxonomy. Furthermore, the NECPs of Czechia, Finland, France and Slovakia consider nuclear energy to be an important transition technology.

EU COUNTRIES' SHARE OF NUCLEAR AND GAS ELECTRICITY GENERATION (% OF TOTAL GENERATION)

EU countries with the largest share of nuclear generation



EU countries with the largest share of gas generation



Source: Ember, ENTSO-E, Agora Energiewende, Bloomberg, UniCredit Research

Gas generation will increase in most EU countries as they exit coal

Natural gas supplied around 20% of Europe's electricity in 2020. Despite a 4% decline in 2020 and a further decline in 2021, natural-gas use is still 14% higher than it was in 2015. The right chart above lists countries in order of the magnitude of their reliance on gas-based generation, with the Netherlands, Italy, Ireland and Portugal topping the list. EU member states that do not rely on nuclear power generation or that have a nuclear exit strategy consider natural gas to be a relevant transition technology. As coal-to-gas and oil-to-gas switching has an immediate, positive impact on a country's CO2 emissions, we think that these countries will also be interested in supporting investment in new gas-fired plants. Over the 2015-20 period, average carbon intensity in the EU's power-generation segment fell from 317g of CO2e/kWh to 226g of CO2e/kWh. While coal generation almost halved in that time, 43% of this decline was offset by increased gas generation. Within fossil power generation, a significant natural-gas price increase during 2021 gave coal-fired power generation a competitive edge over gas-fired power generation and led to some switching back to CO2-intensive coal generation.

Nuclear or gas? For the time being, it will not work without both technologies

From our point of view, independent energy strategies cannot function without both technologies at the same time. This is partly due to the time required to transition a country's entire energy infrastructure to renewable energies. Furthermore, both technologies will also serve as a capacity reserve for periods in which little to no energy can be generated from renewables. While a country's preference will be influenced by its current electricity mix and NECP, the major arguments for and against each technology are clear. While nuclear power generation itself causes hardly any CO2 emissions, gas power generation involves fewer operational risks (e.g. the safety of nuclear-waste handling).

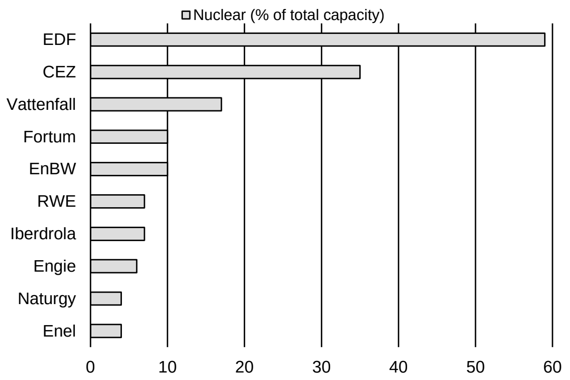
Implications for utilities in our coverage

The roles of nuclear and gas generation will influence financial costs and investment decisions

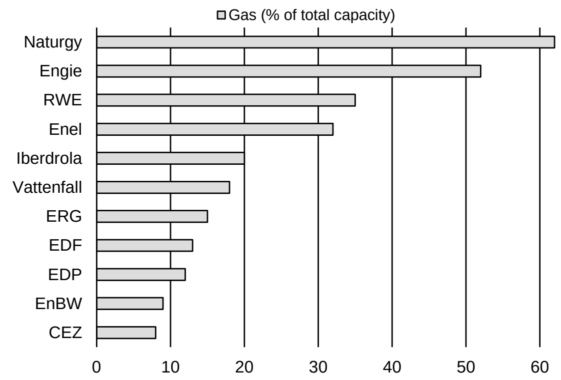
The exclusion of gas or nuclear activities from the EU taxonomy would be detrimental to the ability of associated companies to finance major gas or nuclear projects in the future. Hence, their final classification will influence each company's future investment focus and financing approach. Given the financing requirements of these companies' renewable expansion and the better financing terms associated with these activities, scenarios for splitting groups into nuclear and renewable parts could be considered. The high safety requirements and recycling costs in the field of nuclear power generation mean that maintenance capex and long-term costs are much higher than natural-gas activities. Therefore, we think that the impact of the final classification will be felt more in nuclear activities than in gas power activities.

UTILITIES' SHARE OF NUCLEAR AND GAS GENERATION CAPACITY (% OF TOTAL CAPACITY)

Utilities with higher share of nuclear generation



Utilities with higher share of gas generation



Source: company data, UniCredit Research

EDF, CEZ and Vattenfall have the highest nuclear exposure

Within our utility coverage, EDF, CEZ and Vattenfall have the strongest focus on nuclear-based power generation (see the left chart above). Due to Germany's plan to phase out of nuclear power generation by 2022, the outcome of this will be irrelevant for EnBW and RWE. With regard to gas-based power generation, Naturgy, Engie, RWE and Enel have the greatest exposure (see the right chart above).

Gas network operations should at least partly fulfill screening criteria

Furthermore, gas network operators will be affected by the EC's decision on how gas activities should be considered according to the EU taxonomy. However, compared to power generators, we think a greater part of gas network operators' activity will fulfill the screening criteria of the EU taxonomy. An increasing share of operators' infrastructure will likely be used for green hydrogen transmission and storage in the future. As green hydrogen is supported by the EU taxonomy, operators will be able to use sustainable financing for these activities.

RECOMMENDATION OVERVIEW (ISSUERS MENTIONED IN THIS REPORT)

2i Rete Gas	Overweight
CEZ	Marketweight
EDF	Overweight
EDP	Overweight
EnBW	Marketweight
Enel	Overweight
Enagas	Underweight
Engie	Marketweight
Fortum	Marketweight
Iberdrola	Marketweight
Italgas	Marketweight
Naturgy	Marketweight
RWE	Overweight
Snam	Marketweight
Vattenfall	Marketweight

Source: UniCredit Research

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