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Feedback on Commission Proposal COM(2021) 557 amending Directive (EU) 2018/2001 on the promotion of energy from renewable sources energy.

Fit for 55 Package

CURRENT
Enabling Network Technology throughout Europe

Fir for 55. Feedback on Commission Proposal COM(2021) 557 amending Directive (EU) 2018/2001 on energy from renewable sources.

CurrENT is the industry association representing innovative network technology companies in Europe. Our members offer solutions that climate-proof existing power networks and add innovative elements to the new ones that are yet to be built. Power networks can be optimised and reinforced through these solutions, and additional networks can start off with the latest state-of-the-art technology. Our solutions enable power networks to deliver the energy transition at least cost; faster; in a secure, sustainable and socially responsible manner. We aim to generate greater awareness of new grid-enhancing technologies and to accelerate their implementation by working collaboratively with the broader stakeholder community. Our Vision is a European power network – transmission and distribution – that is the recognised world leader in enabling decarbonisation through the efficient use of modern grid technology.

Introduction

CurrENT would like to commend the EU for passing the European Climate Law, enshrining into law its objective to become climate neutral before 2050 and reducing its greenhouse gas (GHG) emissions by at least 55% before 2030. Likewise, the Commission must be commended for responding rapidly, by forwarding its Fit for 55 package of proposals to make the necessary regulatory tools to achieve the necessary reduction in EU emissions for the EU and its Member States to comply with their commitments under the Paris Agreement.

General comments – the need for grid innovation

Over the past 20 years, renewable energy technologies such as solar PV and wind energy have been developed to a point where they can produce electricity significantly less expensive compared to fossil fuels and nuclear energy – even without taking their clear environmental benefits into account. Therefore, reaching higher shares of renewable electricity no longer comes at the expense of additional cost. Today, more renewables means lower electricity generation costs.

Decarbonisation requires a transformation of Europe's energy sectors unparalleled to anything in history in terms of scale, impact and pace. Energy accounts for 75% of EU greenhouse gas emissions. Supplying carbon-free electricity and electrification of heat and transport, to the greatest extent practicable, are preconditions for decarbonising Europe's economies.

Europe is already experiencing the challenges of integration limitations on weather-dependent electricity technologies. In Ireland, 11.4% (1.45 TWh) of total available wind power was wasted through dispatch-down (curtailment) caused by grid constraints in 2020, and in Denmark, 8.9% (1.46 TWh) of the wind power was curtailed.

Despite a golden period of growth for renewable power in Europe over the past 15 years, electricity's share of overall EU gross final energy consumption has remained unchanged at 24% for the past 15

years. It needs to more than double in order to reach Europe's decarbonisation objectives, according to the Commission's Strategy for Energy System Integration.
Europe needs to dramatically increase power system capability and flexibility in the coming decades to accommodate renewables. This must be provided for by increased interconnection and innovative grid infrastructure, including in the offshore space where no grids exist today. Furthermore, Europe's existing transmission grid and the grid under development must also be utilised better, e.g. by deploying new grid enhancing technology.
The proposed amendments to the Renewables Directive contain useful measures to increase sector coupling and electrification of heating and transport. However – except for the proposals on offshore wind energy grid planning - neither the proposal amending the Renewables Directive nor any other element of the Fit for 55 Package adequately addresses the need to rapidly and dramatically change the way we operate our existing electricity grids and how we apply new, innovative grid technology. Such solutions as dynamic line rating, modular power flow technology, and superconducting cable systems can play a crucial role in addressing the grid-barriers that are already becoming apparent as we move towards an energy system dependent upon variable solar and wind power.
The Florence School of Regulation concluded in its Study on cost-effective Decarbonisation (Piebalgs, Jones; 2020) that, aside from energy efficiency, "the most important and immediate priority for the EU in ensuring a cost-effective decarbonisation of its energy system must (...) be to identify and eliminate infrastructure and other bottlenecks that are likely to constrain the cost-effective production and use of renewable electricity moving forwards."
The Fit for 55 Package does not adequately reflect that conclusion from the Florence School of Regulation. CurrENT would have expected the Commission to have proposed changes, e.g. through amendments to Regulation (EU) 2019/943 on the Internal Market for electricity, requiring TSOs and DSOs to accelerate the uptake of innovative and grid enhancing technologies and provide for greater transmission grid research, development and innovation in cooperation with the private sector and research institutions.

Article 1 (2) 40% renewables target - amending Article 3

EU renewable energy policy making has been a tremendous success ever since the adoption 20 years ago of Directive 2001/77/EC on Promotion of Electricity from Renewable Energy Sources, which set national, mandatory targets for renewable electricity and an overall EU target of 22.1% renewables in electricity by 2010.
It was followed in 2009 by Directive 2009/28/EC on the Promotion of the Use of Energy from Renewable Energy Sources, setting national targets and a EU target of 20 % renewable energy by 2020, which was part of the European Commission's 2020 Climate and Energy Package.
Preliminary estimates published by the European Environment Agency on 26 October 2021 show that all the Package's three 2020 targets – 20% GHG reductions, 20% renewables and 20% energy efficiency – were achieved. The EEA data shows that EU-27 GHG emissions were down 31% compared to 1990; renewable energy reached 21.3%; and the energy efficiency target was achieved with a margin of 5% for primary and 3% for final energy consumption.

The 27% renewable energy target for 2030 proposed by the European Commission in 2016 was clearly insufficient. Eventually a target of 32% renewables was agreed with the Renewable Energy Directive (EU) 2018/2001, as part of the Clean Energy Package in 2018. That too, seems grossly incompatible with the EU's obligations under the Paris Agreement
Likewise, the Climate Target Plan established that the share of renewable energy in the EU would need to almost double from currently 21% to at least 40% in 2030 to be compatible with the EU's emission reduction targets. In that light, CurrENT finds it highly appropriate to increase the 2030 renewable energy target, established by Article 3, to at least 40%, as proposed by the Commission.

Article 1 (4) Cooperation on grid infrastructure – amending Article 9

New paragraph 1a

The Commission is proposing to add a new paragraph 1a in Article 9, requiring Member States to agree to at least one joint project with another Member State. CurrENT supports the proposal, as it could further enhance the necessary cross border cooperation on renewables and associated grid infrastructure. However, CurrENT proposes that the requirement could also be met by a Member State agreeing to joint projects with third countries. The EU would benefit greatly by engaging in joint hybrid renewable energy projects e.g. between Norway and the UK on offshore wind and with the nations of North Africa on solar projects and infrastructure.
Moreover, CurrENT suggest that the new paragraph also makes reference to the need for strengthening the planning of offshore projects and their associated grid infrastructure and adds – here and in Article 2 of the Renewables Directive – a definition of "offshore hybrid assets".

New paragraph 7a

CurrENT strongly supports the Commission's proposal for a new paragraph 1a in Article 9, having Member States bordering a sea basin jointly define the amount of offshore renewable energy they plan to produce by 2050 with intermediary steps in 2030 and 2050 and associated reporting. It's a regional approach to EU grid planning that must, hopefully before long, develop into a truly pan-European approach to grid planning, development, investment and operation. The proposed text is similar to the text proposed by the European Commission in Article 14 (1) of its proposal for revised TEN-E Guidelines[1]. However, the wording on grid planning has been watered down, compared to the TEN-E proposal, which stresses the need for the same Member States to "develop and publish integrated offshore network development plans" for the offshore capacity (Article 14 (2) of the TEN-E proposal).
The European Commission's Offshore Renewable Energy Strategy estimates investment in offshore renewables at almost €800 billion; around two thirds to fund the associated grid infrastructure and the remaining third for offshore power generation. In other words, for every Euro spent on offshore renewable generating assets, two Euros will be spent on the associated offshore grid infrastructure. The amended Renewables Directive should be much stronger in its call for the need for joint offshore infrastructure planning, e.g. by adding the text proposal from Article 14 (2) of the TEN-E proposal.

[1] COM(2020) 824