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SP 4

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1

SP 4: Market and business models for ET

Market and business models for ET

Mission

The *mission* of SP 4 is to guide the development of sound and fair markets for energy vectors, flexibility and emissions thereby driving the system forward with an optimal and affordable integration of RES technologies in the energy mix and consumption patterns.





Workshop objectives

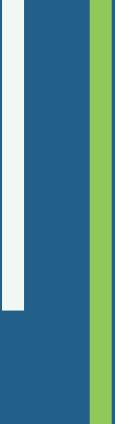
What are we going to discuss?

Key topics

Establish a common understanding of the proposed changes to power market regulation published by the European commission in February

What can SP4/e3s do about this topic and does it trigger new research projects, e.g., what will it mean for business models for RES and traditional generators?





3

Proposed regulation

Response to the energy price crisis and the war in Ukraine

REPowerEU objectives

► Urgent actions on prices

- Keep retail prices in check

► Security of supply

- Refilling gas storage for next winter

► Cut dependency on Russian gas and coal

- Define actions to ramp up the production of green energy
- diversify supplies
- reduce demand, focusing primarily on gas, which significantly influences the electricity market



Strasbourg, 8.3.2022
COM(2022) 108 final

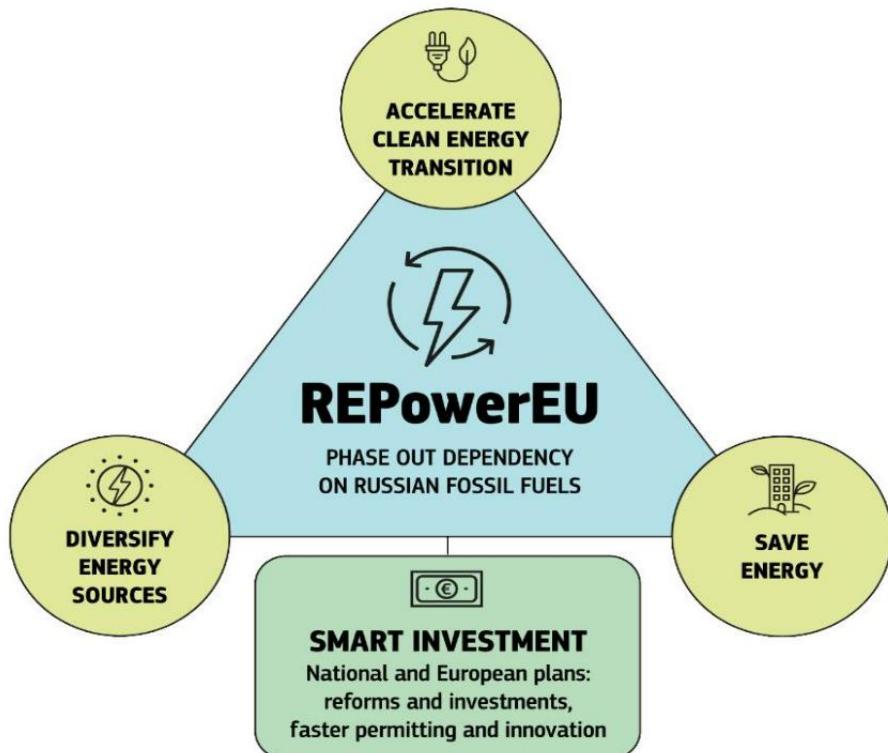
COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE EUROPEAN COUNCIL, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

REPowerEU: Joint European Action for more affordable, secure and sustainable energy

Source: European Commission

...next step is to plan the actions.

Concretising REPowerEU



Source: European Commission



Source: European Commission

Realising the Green deal, REPowerEU, Net-Zero Industry Act

Electricity Market
Design Reform
14.3 2023

Net zero industry
act
16.3 2023

Critical Raw Materials
act
16.3 2023

Hydrogen Bank
16.3 2023

Renewable Energy
Directive
30.3 2023

Energy Efficiency
Directive
June 2023?

Gas package
June+ 2023?

Energy performance
of buildings
June+ 2023?

Electricity Market Design Reform, dated 14.3 2023



EUROPEAN COMMISSION

Strasbourg,
14.3.2023

COM(2023) 148
final

2023/0077(COD)

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

amending Regulations (EU) 2019/943 and (EU) 2019/942 as well as Directives (EU)
2018/2001 and (EU) 2019/944 to improve the Union's electricity market design

(Text with EEA relevance)

{SWD(2023) 58 final}

The market stays

The market principle paid-as-cleared stays as today

Increased surveillance and reporting (REMIT)



EUROPEAN COMMISSION

Strasbourg,
14.3.2023

COM(2023) 147
final
2023/0076(COD)

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

amending Regulation (EU) No 1227/2011 and (EU) 2019/942 to improve the Union's protection against market manipulation in the wholesale energy market

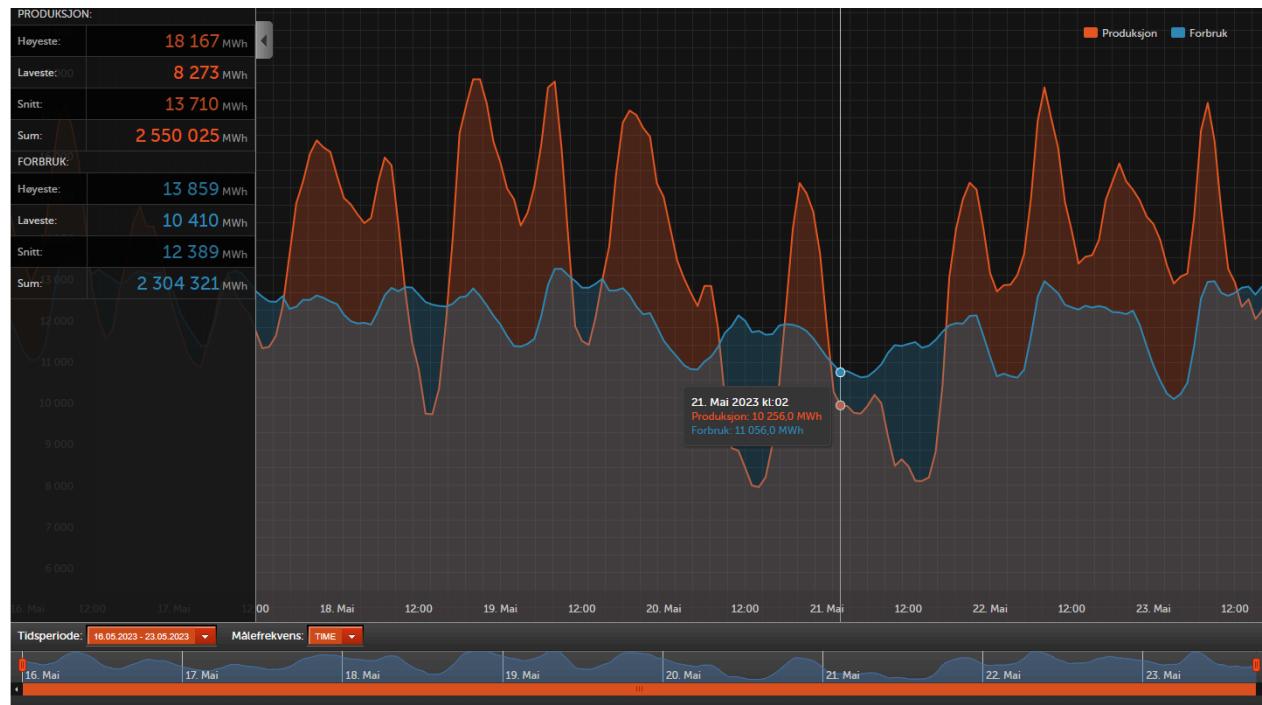
(Text with EEA relevance)

{SWD(2023) 58 final}

.... improve the Union's electricity market design

Main objectives of the regulation

- ▶ insufficient tools to protect consumers, including businesses, against high short-term prices.
- ▶ the excessive influence of fossil fuel prices on electricity prices and the failure for low-cost renewables and low carbon energy to be better reflected in electricity bills-
- ▶ the impact of extreme price volatility and regulatory interventions on investment
- ▶ the lack of sufficient non-fossil flexibility (such as storage or demand response) that could reduce dependence on gas-fired generation.
- ▶ the limited choice of supplier contract types.
- ▶ the difficulties to directly access renewable energy through energy sharing
- ▶ the need for robust monitoring of the energy market to better protect against market abuse.



...concrete tools for more electricity contracts

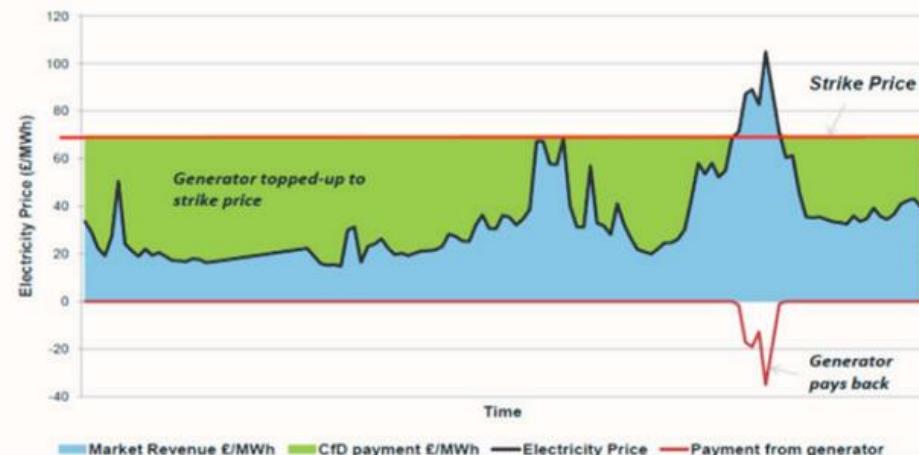
PPA's (Power Purchase Agreements)

- ▶ Buy and sell power at a fixed price for a period of time, short or long.
- ▶ Examples:
 - ▶ Feed-in tariffs is a sort of PPA
 - ▶ Fixed "long-term" energy price for the consumers
 - ▶ Fixed delivery price for the producer

CfD's (Contracts for Difference)

- ▶ Two-way contract with a guaranteed minimum price with a market price component on top but also a maximum price to reduce wind-fall profits.

Figure 1 : Structure of a contact for differences

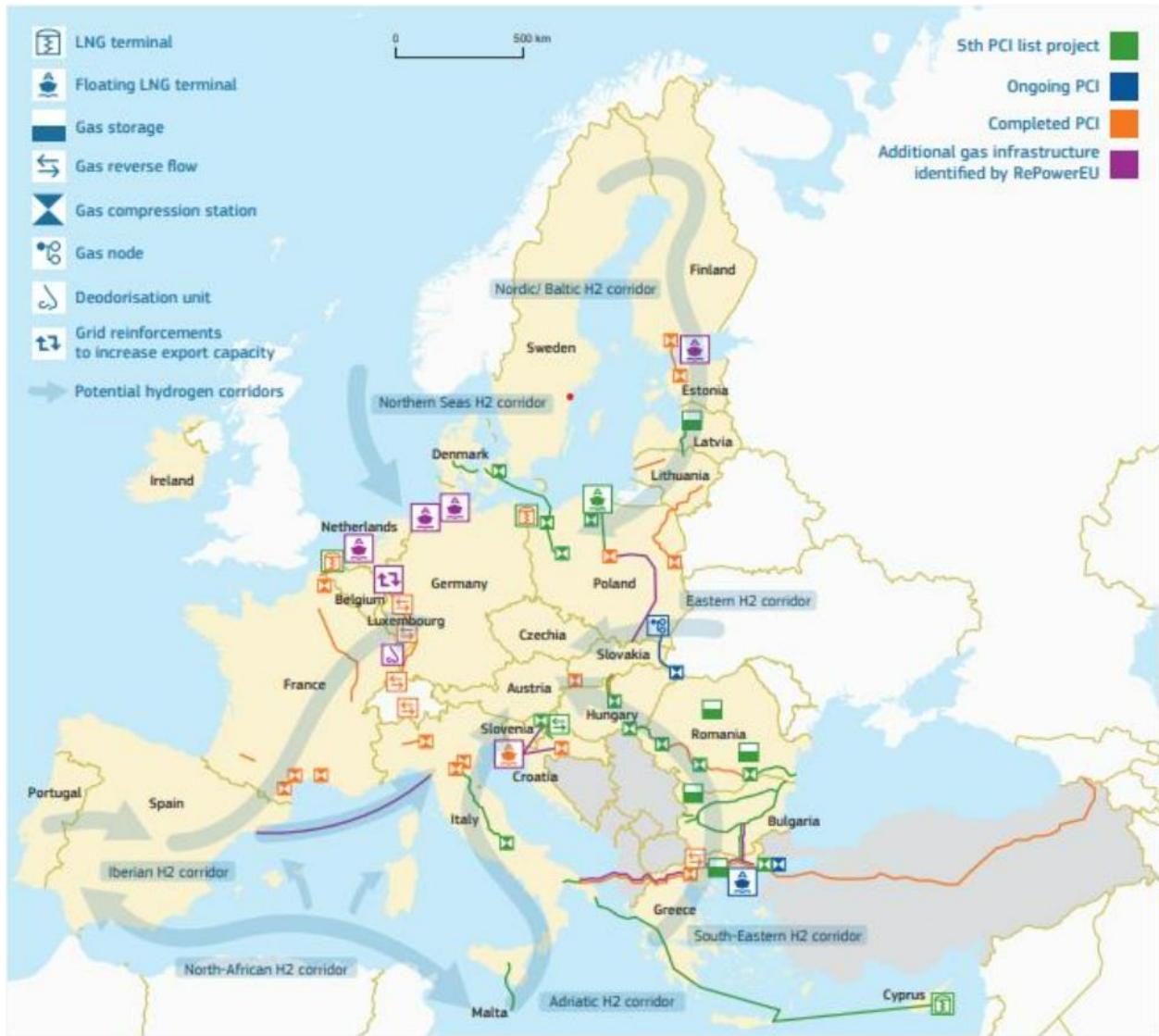


Source: Ofgem

Infrastructure development

Hydrogen and gas

- ▶ Mediterranean H2 corridor
- ▶ North Sea H2 corridor
- ▶ Spanish H2 corridor
- ▶ Nordic/Baltic H2 corridor
- ▶ Closer connection between infrastructures and energy carriers. How will this impact SP4?
- ▶ Is it relevant for SP4 to consider: Self supplied or a joint approach, which is better?



Source: European Commission

Responses to the proposal in February – what can we learn?

The image shows the cover page of a document from the Commissariat à l'énergie atomique et aux énergies alternatives (CEA). The logo 'cea' is in a red square at the top left. The title 'Response to the European consultation Electricity market reform project' is in a grey box at the top right. Below the title, it says 'Issue date : February 2023'. The main text starts with a 'Summary' section, followed by two paragraphs of text. At the bottom, there is another paragraph of text.

cea
Commissariat à l'énergie atomique et aux énergies alternatives
Atomic Energy and Alternative Energies Commission

Response to the European consultation
Electricity market reform project

Issue date : February 2023

Summary

The wholesale market is a good tool for short-term optimisation of the electricity system and should be preserved. However, the wholesale market does not provide the long-term visibility necessary to encourage investment in low-carbon electricity production assets, and it is not representative of the average cost of electricity production, exposing consumers to dangerous price hikes. It is these last two shortcomings that the reform project must address.

To do this, several tools can and should be used in parallel, but not with the same priority: PPA, complementary remuneration (CfD), and forward markets. These tools differ mainly in the risk-bearing entity between production cost and market price.

Even if they are currently undergoing strong development, we question the capacity of APPs based on intermittent renewable energies to present a sustainable interest for consumers. Indeed, with the expected strong development of these energies, the buyers of APPs will find themselves little protected (and less and less) from market fluctuations, and may be penalised in periods of low prices.

Electricity market design - Norwegian comments

We refer to the invitation from the EU Commission to respond to the consultation on the future EU/EEA electricity market design of 23rd January. We thank you for the opportunity to address these important issues.

Norway support an evaluation of the electricity market design and the mission to identify where there is need for improvements. We share deep concerns about the repercussions of the energy prices for households and industry in Europe.



Discussion

Questions to discuss

- ▶ **What possibility do we in e3s have to assess consequences of different market design alternatives?**
- ▶ **What will be important for the consumers?**
 - ▶ The proposal points to transparency and simplicity but this is difficult to obtain in practice ex. new contract types.
- ▶ **How can new projects on renewable energies (for self consumption or energy supply) be affected in the short, medium and long term?**
- ▶ **What are the important questions that SP4 should address?**
- ▶ **Connections to other SP's?**
- ▶ **What would be our, e3s, research based input to the Commission we have or could provide in the future.**

Questions to discuss

- ▶ How to make strengthen the link between SP4 and ongoing activities in the JP, ex. how the regulation might impact on JET and demand reduction?
- ▶ What should be the concrete SP4 activities for 2023-2024, considering the most important impact SP4 could make? What findings would you like the SP to generate and what topics could the JP and SP4 engage in the next months up to 2024
- ▶ Is there interest and possibility for in 2024, 1 year from now, to organise an event / seminar on the assessment of the effect of the regulations that are considered – on the way to become law at the moment? What effects should be assessed and how can SP4 members contribute?



Thank you

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