Energy Storage Coalition

NATIONAL ENERGY & CLIMATE PLANS 2023 RECOMMENDATIONS

National energy and climate plans (NECPs) are essential documents where EU countries outline their national strategy over the next 10 years to meet the EU energy and climate targets for 2030. **The Energy Storage Coalition (ESC)** shares key recommendations on the currently released draft NECPs to be finalised by June 2024. We invite the European Commission and Member States to take them into consideration to ensure the successful achievement of EU energy and climate targets.

The ESC witnesses **encouraging trends** in national authorities acknowledging the importance of developing their flexibility solutions - including energy storage - coupled to further deployment of renewable energies solutions.

The ESC also notices **recurring shortcomings** in the necessary development of national renewable energy & energy storage capacity to its full potential.

To reach the EU's objectives, it is estimated that the EU-wide energy storage capacity needs to be doubled, to reach 200 GW by 2030. It is thus crucial that Member States address existing barriers to energy storage and provide long-term guidance for its development.

While many countries acknowledge the role of energy storage for energy security and the decarbonisation of their energy system, most of the draft NECPs already published are often overlooking simple steps to take.

In order to tackle persisting barriers to energy storage Member States should:

- **Provide a precise flexibility assessment, including long-term energy storage.**
- **Set up a comprehensive strategy on energy storage to guide its development.**
- **Address common hurdles to energy storage projects at national level (e.g. double charging).**
- **Keep a technology-neutral approach that allows for the deployment of all available energy storage solutions.**

THE STATUS OF ENERGY STORAGE IN THE NECPs

On the right path · Missing elements · Not addressed

	Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
AUSTRIA	○	○	○
BELGIUM	●	●	●
BULGARIA	○	○	○
CROATIA	■	●	■
CYPRUS	●	●	■
CZECHIA	■	●	▲
DENMARK	●	■	■
ESTONIA	●	■	■
FINLAND	●	●	●
FRANCE	●	●	■
GERMANY	■	■	▲
GREECE	●	▲	●
HUNGARY	▲	●	●
IRELAND	■	●	■
ITALY	▲	●	●
LATVIA	■	■	■
LITHUANIA	■	●	■
LUXEMBOURG	▲	●	●
MALTA	■	▲	■
NETHERLANDS	●	●	■
POLAND	○	○	○
PORTUGAL	▲	●	▲
ROMANIA	■	●	■
SLOVAKIA	■	■	■
SLOVENIA	●	■	●
SPAIN	●	▲	▲
SWEDEN	●	●	▲

HOW MEMBER STATES ADDRESS ENERGY STORAGE

AUSTRIA

Precise flexibility assessment ○ · Comprehensive strategy on energy storage ○ · Removal of double charging ○

Text still to be published by Austria as of January 2024.

BELGIUM

Precise flexibility assessment ● · Comprehensive strategy on energy storage ● · Removal of double charging ●

Belgium plans a major transformation of the electricity mix between 2023 and 2035. In this context, the NECP acknowledges that the need for flexibility on the energy grid will only increase and the role of short & long-term energy storage to cope with it. While measures are taken at federal & regional level to gather more relevant data and further clarify flexibility needs, the NECP only provides a broad assessment of the country's gap. Accordingly, there is no comprehensive storage strategy at this stage at federal level. While efforts are being made to tackle double charging in some regions (Flanders), the NECP does not mention any specific measure at national level.

BULGARIA

Precise flexibility assessment ○ · Comprehensive strategy on energy storage ○ · Removal of double charging ○

Text still to be published by Bulgaria as of January 2024.

CROATIA

Precise flexibility assessment ■ · Comprehensive strategy on energy storage ● · Removal of double charging ■

In its draft NECP, Croatia rightly underlines the importance of improving energy security with the deployment of a wide range of energy storage technologies. However, the NECP does not provide precise figures about the energy storage gap in Croatia and comprehensive national measures to fill it. The plan also overlooks how to tackle double charging, for instance, or to address the non-existence of grid connection rules for energy storage.

CYPRUS

Precise flexibility assessment ● · Comprehensive strategy on energy storage ● · Removal of double charging ■

While Cyprus includes broad projections for energy storage deployment, its NECP does not mention a comprehensive strategy to guide the deployment of energy storage to allow to optimal renewable energy integration. The plan does not provide information on double charging.

CZECHIA

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🔴	🟠	🟢

Czechia still lacks legal changes transposing energy storage and flexibility. However, a new energy law should enter into force in 2025 and contain a specific ban on double-charging. Czechia's NECP mentions the need for storage and greater flexibility enhancement repeatedly, but more specific measures are required to remove existing administrative & legal barriers and support a larger deployment of energy storage.

DENMARK

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🟠	🔴	🔴

Denmark acknowledges the role of flexibility in decarbonising their energy system, but does not provide indications on how to address renewables curtailment or strategy for replacing fossil-fuel peaker power plants.

ESTONIA

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🟠	🔴	🔴

Estonia describes a clear commitment to remove market barriers for energy storage but is unclear regarding its implementation and does not provide cohesive national objectives for flexibility and energy storage.

FINLAND

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🟠	🟠	🟠

Finland relies on market-based principles to encourage the deployment of energy storage, but does not provide a comprehensive strategy to reduce market barriers to energy storage. Finland abolished double taxation of energy storage in 2019, however, it lingers for certain storage users.

FRANCE

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🟠	🟠	🔴

France highlights the development of flexibility as a whole and electricity storage batteries as a priority to ensure security of supply. However, the NECP falls short of listing a coherent set of measures that would constitute a comprehensive energy storage strategy. Regarding the country's flexibility assessment, the plan mentions the report "Bilan prévisionnel 2023" which forecasts flexibility needs but does not provide a dedicated volume for storage. Finally, while not mentioned in the NECP, double charging remains for pumped hydro storage.

GERMANY

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🔴	🔴	🟢

Germany acknowledges that flexibility will be needed to compensate for the fluctuating supply of renewables. However, the plan does not provide any precise data on the estimated volume of flexibility and states that "storage should also play a role where it makes sense" without mentioning any comprehensive strategy for energy storage. Regarding double charging, only partial withdrawal charges to storage operators connected to the distribution grid remain (ENTEC, 2023).

GREECE

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🟠	🟢	🟠

Greece lists energy storage deployment as a key policy priority and has made significant regulatory efforts to attract investments. The country has conducted preliminary assessments on the deployment of renewables and flexibility solutions but its NECP is vague about the source of the figures provided and the different scenarios considered. Moreover, only batteries, pumped-storage, and hydrogen seem to be considered in the Greek plan. Finally, some forms of double charging remain (ENTEC, 2023) but is not addressed in Greece's NECP.

HUNGARY

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🟢	🟠	🟠

Hungary puts forth ambitious investments for increasing energy storage by 2026 and 2030 to integrate renewables. The NECP plans to improve the regulatory framework but does not mention double charging. Moreover, Hungary will also perpetuate fossil lock-in by building new gas power plants in a contradictory strategy to integrate renewables. Fossil-free flexibility should be prioritised.

IRELAND

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🔴	🟠	🔴

Ireland does not seem to detail the country's flexibility needs for energy storage. While Ireland plans on developing an Electricity Storage Policy Framework, it is not expressly mentioned in the NECP and a comprehensive strategy on energy storage is missing so far.
As of January 2024, some types of double charging on energy storage remain but the matter is not addressed in the NECP.

ITALY

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🟢	🟠	🟠

Italy notably included energy storage ambitions in its NECP. However, a more developed strategy and measures to achieve these goals would be a step forward. For their translation in national tenders, the ESC advises a technology-neutral approach that considers all proven tools available to bridge the energy storage gap, especially long-duration energy storage. Also, double charging in the distribution system is not addressed in Italy's NECP.

LATVIA

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🔴	🔴	🔴

Latvia already has a high share of renewables and plans to further bolster it to ensure the self-sufficiency of its own energy production. Its NECP underlines that an increase in local electricity demand is to be expected and that the country will need a significant volume of peak/reserve capacity in heating. However, the NECP never mentions energy storage. It does not provide any detail based on existing assessments, or on measures related to energy storage, and does not touch upon double charging or other common hurdles.

LITHUANIA

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🔴	🟠	🔴

Besides objectives at household level and the mention of a possible capacity mechanism for demand-response & storage, Lithuania seems to overlook concrete national measures on energy storage. It does not provide a basis to assess their needs and establish a comprehensive strategy for energy storage deployment.

LUXEMBOURG

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🟢	🟠	🟠

Luxembourg outlines many schemes to boost renewable self -consumption, including support to install behind-the-meter energy storage in homes, businesses, and industries. However, beyond the development of green hydrogen, Luxembourg lacks specific plans to boost front-of-the-meter and long duration energy storage.

MALTA

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🔴	🟢	🔴

Malta lists the roll-out of cost-effective energy storage as an essential priority to ensure its energy security. While Malta's step towards renewables and energy storage is evident, a clear quantification of the announced measures would be a significant improvement. It might be linked to the fact that the NECP does not provide a clear flexibility assessment, though it mentions that a new electricity supply study should further cover flexibility needs. Malta's legislation makes no specific mention of electricity storage, treats charging as consumption and, unfortunately, the Maltese NECP does not provide any sign that the issue will be addressed.

NETHERLANDS

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🟠	🟠	🔴

The Netherlands' NECP contains strong commitments for renewable energy and intertwines obligations on deploying energy storage with renewable energy production. However, a more specific strategy on energy storage is missing. Residential storage is also double taxed, something not addressed in the NECP.

POLAND

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
⚪	⚪	⚪

Text still to be published by Poland as of January 2024.

PORTUGAL

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🟢	🟠	🟢

Portugal's NECP provides an encouraging foundation of measures to support the deployment of energy storage. However, its strategy is not technology neutral and gatekeeps the deployment of several solutions that would otherwise be available to address the gap in energy storage.

ROMANIA

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🔴	🟠	🔴

Romania aims for 240 MW/ 480MWh of battery storage by 2025 and encourages demand response consumption to address the energy demand fluctuations. However, it is far from constituting a comprehensive strategy for energy storage and there is no precise flexibility assessment. Nothing is mentioned about double charging.

SLOVAKIA

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🔴	🔴	🔴

Slovakia sets the promotion of energy storage as a priority to achieve greater flexibility and to integrate more renewable energy. However, to reach this objective, it is essential that their NECP would require more tangible data and measures to guide energy storage development.

SLOVENIA

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🟠	🔴	🟠

Slovenia's NECP is optimistic about the development of a flexibility market to boost grid flexibility and the deployment energy storage. However, for the time being, it lacks concrete measures to drive this ambition.

SPAIN

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🟠	🟢	🟢

Spain provides one of the most complete draft NECPs with a reinforced commitment to flexibility and a dedicated energy storage strategy. Tackling double charging is also mentioned as an ongoing need. Overall, the implementation of concrete measures and the redesign of Spain's capacity mechanism will be of particular importance to reach these goals.

SWEDEN

Precise flexibility assessment	Comprehensive strategy on energy storage	Removal of double charging
🟠	🟠	🟢

Sweden's NECP bears mention of plans to promote flexibility to integrate increasing variable renewable energy. An assessment of its flexibility needs is also pending. However, it needs further concrete strategies and measures to prioritise non-fossil flexibility solutions and meet its climate & energy targets.

Energy Storage Coalition

The Energy Storage Coalition (ESC) gathers four key clean energy actors: SolarPower Europe, The European Association for Storage of Energy, WindEurope, and Breakthrough Energy. The Coalition aims at accelerating the decarbonisation of the European energy system by increasing the deployment of sustainable and clean energy storage solutions to support renewables.

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