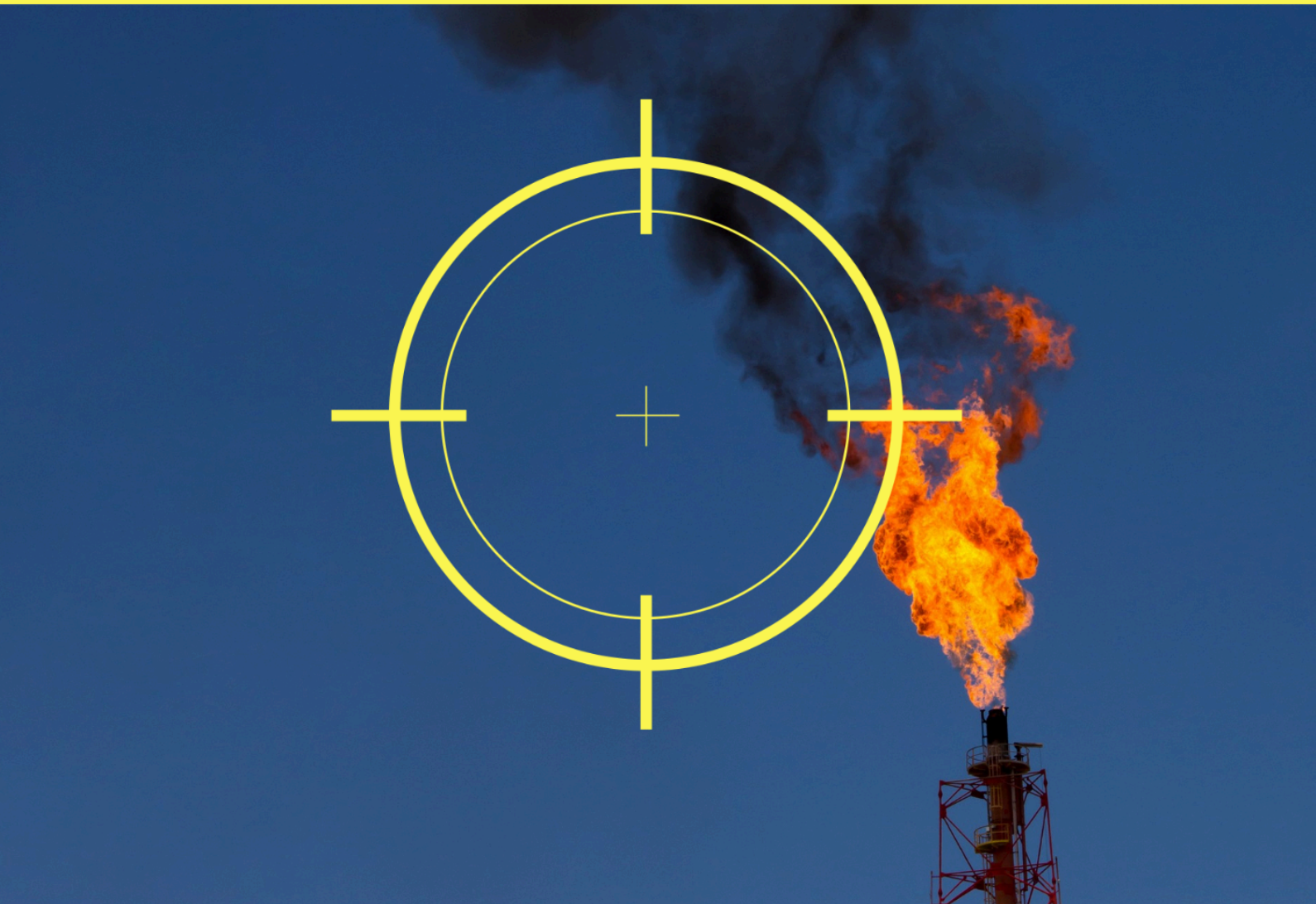
BEYOND FOSSIL FUELS

CAN CLIMATE ACTION NETWORK Europe

NOVEMBER 2026

2026 Flexibility Needs Assessments:

# A missed opportunity to break free from gas dependency



# Acknowledgements

**Lead Authors:**
Juliet Phillips, Beyond Fossil Fuels
Thomas Lewis, Climate Action Network Europe

**Contributors:**
Adrienn Selei, REKK
Henri Schmitz, Germanwatch e.V.
Jan Bakule, Frank Bold
Michał Smoleń, Regulatory Assistance Project (RAP)
Zsuzsanna Pató, Regulatory Assistance Project (RAP)

**For more information, contact:**
juliet.phillips@bff.earth
thomas.lewis@caneurope.org

# Contents

**Executive summary** ..... **5**

**Country overview and ranking** ..... **6**

**Introduction** ..... **8**

**Critique of methodology: A narrow focus leading to deceptive outcomes** ..... **14**

**Recommendations on the methodology** ..... **17**

**Country profiles** ..... **17**

1. Netherlands ..... 22
2. Ireland ..... 25
3. Belgium ..... 28
4. Hungary ..... 31
5. Lithuania ..... 35
6. Poland ..... 38
7. Portugal ..... 41
8. Czechia ..... 44
9. Germany ..... 47
10. Croatia ..... 51

**Annex I: Methodology for our assessments** ..... **54**

Annex II: Access to the national Flexibility Needs Assessment reports ..... 56

# List of acronyms

| Acronym | Explanation |
|---|---|
| ACER | Agency for the Cooperation of Energy Regulators |
| aFRR | Automatic Frequency Restoration Reserve |
| BESS | Battery Energy Storage System |
| CCGT | Combined Cycle Gas Turbine |
| DSF | Demand-side Flexibility |
| DSO | Distribution System Operator |
| DSR | Demand-side Response |
| EMD | Electricity Market Design |
| ENTSO-E | European Network of Transmission System Operators for Electricity |
| ERAA | European Resource Adequacy Assessment |
| FNA | Flexibility Needs Assessment |
| GW | Gigawatt |
| GWh | Gigawatt-hour |
| LDES | Long-duration Energy Storage |
| mFRR | Manual Frequency Restoration Reserve |
| MW | Megawatt |
| NECP | National Energy and Climate Plan |
| NRA | National Regulatory Authority |
| NRAA | National Resource Adequacy Assessment |
| P2X | Power-to-X |
| TSO | Transmission System Operator |
| TWh | Terawatt-hour |

# Executive summary

We live in a time of overlapping and multiplying crises fuelled by fossils. This has been witnessed this year with the brutal impacts of El Niño; while households and businesses are punished for our reliance on imported gas as energy prices spike. Europe's fossil-reliant power systems currently continue to fan these flames.

A different pathway for our energy systems exists, where fossil gas plants are replaced with renewables and clean flexibility. Clean flexibility is best understood as a portfolio of solutions – from innovative long-duration energy storage technologies, through to charging electric vehicles outside of 'peak' hours – offering benefits by storing and shifting energy use to make the most of abundant cheap renewables.[1]

While gas plants have been one of the primary technologies used to provide flexibility, the climate and energy security imperative now means that fossil-free flexibility must be rapidly scaled. The EU has identified its importance and has set a KPI to reach 200 GW of energy storage by 2030, up from around 55 GW today.[2]

Under EU legislation, 2026 is the first year in which Member States must publish Flexibility Needs Assessments (FNAs), requiring countries to measure their clean flexibility needs and identify market barriers which are holding back growth. With the support of our national partners, in this report we scrutinise the FNAs published by 10 countries, providing a ranking of how they perform against indicators set out in our best practice check-list published in February 2026.[3]

Our analysis indicates that at present, the FNA approach is inadequately designed to enable clean flexibility to fully support energy and climate security. A major rethink of the methodology is needed if they are to serve as a useful mechanism.

**We found that no country meaningfully considered how it could use clean flexibility to replace the role currently played by gas.** A number of countries concluded they had no or very little unmet clean flexibility needs; as they are either on track to meet their renewables targets without needing to reduce curtailment, or they are off-track and no amount of flexibility can help. While some FNAs provide comprehensive analysis of the market barriers, very few provide a policy roadmap on how to implement changes. Others fall far short and claim that no major market barriers exist, despite evidence to the contrary.

We conclude that a key underlying driver of the shortcomings of the reports was the methodology used to undertake the analysis, which was drafted by ENTSO-E and EU DSO

[1] See The Brattle Group (2026): Clean Flexibility: Opportunities in Europe. https://beyondfossilfuels.org/wp-content/uploads/2026/02/2026-02-24_Brattle-Clean-Flexibility-in-Europe-Report.pdf
[2] See EU Commission (2026). Electrification Action Plan. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52026DC0595&qid=1784715609929
[3] See Beyond Fossil Fuels and CAN Europe (2026). Clean Flexibility Check list. https://beyondfossilfuels.org/wp-content/uploads/2026/02/Briefing_Clean_Flexibility_Checklist.pdf

Entity, and approved by ACER. We provide a constructive critique and recommendations on how this should be improved in the future.

The FNAs could be a vital tool for meeting or exceeding the EU's goal to reach 200 GW of energy storage by 2030. At present, this is not the case. Worst still, it risks leading to the wrong conclusion that Europe has limited need for more clean flexibility.

Until the scope of the analysis is expanded to focus on reducing our reliance on gas, the reports will continue to fall short. We urge a re-think to ensure the FNAs can provide a genuine pathway to a cleaner, more renewable and energy secure Europe.

# Country overview and ranking

The map below summarises which countries have published an official FNA report at the time of publication (26th November 2026). From the published reports, we selected a cross-section for deeper analysis. These FNAs were selected to provide a geographical spread, and in consultation with our national partners.

**Who has published Flexibility Needs Assessments, and who have we analysed?**




*Data correct as of 26/11/2026*

Map: CAN Europe, Beyond Fossil Fuels • Created with Datawrapper

Our high-level ranking of the ten countries we examined is set out in the table below. A full methodology is available at the end of the report, as well as a profile for each country – providing more detail and nuance on how they performed against the different criteria in our key practice check-list.[4]

We marked the FNAs on six key areas: (a) whether they prioritised clean flexibility over gas; (b) contained robust, independent and transparent data sources; (c) took an inclusive approach to clean flexibility to maximise benefits-sharing; (d) applied a robust and climate-aligned understanding of electrification profile; (e) fully considered the opportunities of cross-border cooperation, (f) and the robustness of their market barriers report.

The closer a country got to achieving the 'best practices', the better the score was, with dark green 🟢 representing strong alignment; and light green 🟢 representing partial alignment. Where a country was strongly misaligned with our best practices, we ranked them with a dark red 🔴, and where a country was partially misaligned, Orange 🟠. Yellow 🟡 was used when a country neither fulfilled our criteria, nor violated them.

**Country ranking:** How the FNAs stack up against our check-list

| | Pro-gas | Robust data | Socially inclusive | Electrification | Cross border | Market barriers |
|---|---|---|---|---|---|---|
| Netherlands | 🔴 | 🟢 | 🟢 | 🟠 | 🟢 | 🟢 |
| Ireland | 🟠 | 🟢 | 🟡 | 🔴 | 🟡 | 🟢 |
| Belgium | 🟠 | 🟡 | 🟡 | 🟠 | 🟢 | 🟡 |
| Hungary | 🔴 | 🟢 | 🟡 | 🔴 | 🟢 | 🟢 |
| Lithuania | 🟠 | 🟡 | 🟠 | 🟡 | 🟢 | 🟡 |
| Poland | 🔴 | 🟡 | 🟡 | 🔴 | 🟠 | 🟢 |
| Portugal | 🔴 | 🟡 | 🟡 | 🟡 | 🟠 | 🟡 |
| Czechia | 🔴 | 🔴 | 🟡 | 🔴 | 🟡 | 🟡 |
| Germany | 🔴 | 🟡 | 🟠 | 🔴 | 🟠 | 🟠 |
| Croatia | 🔴 | 🟠 | 🔴 | 🔴 | 🟢 | 🟡 |

[4] See Beyond Fossil Fuels and CAN Europe (2026): Clean Flexibility Checklist. https://beyondfossilfuels.org/wp-content/uploads/2026/02/Briefing_Clean_Flexibility_Checklist.pdf

# Introduction

The transition to homegrown renewables is essential for energy and climate security, enabling us to decouple from highly volatile global fossil fuel markets. To integrate renewables into the energy system and make the most of the benefits they offer, it will be important to shift towards more flexible patterns of energy usage.

Energy flexibility is the ability to balance the power system and ensure that electricity supply is always able to meet demand. Flexibility has always been an important part of the system, ensuring it is resilient and responsive to changing conditions.

While power systems have historically relied principally on fossil gas to provide flexibility, clean flexibility is provided by a portfolio of solutions. These include technologies such as batteries and long-duration energy storage, as well as grid interconnections between countries and regions. Households and businesses are increasingly playing a role through demand-side response – shifting their energy use out of 'peak' times, to moments when renewables are abundant.

Using gas to provide flexibility is often more expensive than clean alternatives.[5] Since electricity prices have historically followed the cost of gas-fired generation, clean flexibility solutions could lower everyone's electricity costs. For households and businesses that provide demand-side flexibility, energy cost savings can be even more significant.

## Understanding the Flexibility Needs Assessments

The Flexibility Needs Assessment (FNA) is a mandatory EU process in which each country quantifies its need for flexibility to complement the acceleration of renewables, while maintaining a high level of supply security. These assessments will be used to set national objectives and policies for non-fossil flexibility.[6]

The FNA was introduced by the revised Electricity Markets Design regulation, adopted into law in 2024.[7] A standardised FNA methodology was developed by European Network of

[5] Beyond Fossil Fuels (2026). Clean Flexibility: Opportunities in Europe. https://beyondfossilfuels.org/wp-content/uploads/2026/02/2026-02-24_Brattle-Clean-Flexibility-in-Europe-Report.pdf

[6] See JRC (2024): What results should Flexibility Needs Assessments in the power sector produce?. https://publications.jrc.ec.europa.eu/repository/handle/JRC139027

[7] See ENSTO-E (2024): System Flexibility Needs for the Energy Transition. https://www.entsoe.eu/system-flexibility/

Transmission System Operators for Electricity (ENTSO-E) and the EU DSO Entity; defining data types, formats, and analysis steps for national assessments. This was approved by the Agency for the Cooperation of Energy Regulators (ACER) in July 2025.

National regulatory authorities (NRAs), or another entity designated, were given until July 2026 to submit a report on the estimated flexibility needs over a 5-10 year horizon, using data from transmission system operators (TSOs) and distribution system operators (DSOs). Member States will set national objectives for non-fossil flexibility by January 2027, highlighting the specific contributions of both demand response and energy storage.[8] ACER will assess the national reports, and if necessary, issue recommendations for removing market barriers and ensuring sufficient non-fossil flexibility.

## The Beyond Fossil Fuels and CAN Europe check-list

In February 2026, Beyond Fossil Fuels (BFF) and CAN Europe set out a check-list of best practices which we encouraged countries to consider when compiling their FNAs, summarised below. These recommendations were sent to energy regulators, TSOs and other bodies delegated with writing their countries' FNAs.

- ☑ **Prioritise clean flexibility over fossil gas.** Clean flexibility should be used as a tool to gradually displace the role that fossil gas currently plays in the energy system, in line with climate and energy security goals. This should include a comprehensive analysis of policy and market barriers for clean flexibility, such as capacity markets which prioritise flexibility from fossil gas. We encouraged countries to commit to publish a Clean Flexibility Policy Roadmap to address challenges identified in the market barrier analysis.

- ☑ **Robust, independent and transparent data sources.** We called for use of up-to-date, comprehensive and transparent data sources, reflecting climate goals and on-the-ground advancements in the clean energy sector. Modelling assumptions should not contain a bias favouring incumbent, fossil assets.

- ☑ **Ensure an inclusive approach to clean flexibility to maximise benefits-sharing.** The shift to a more flexible energy system should be designed in a way to ensure that market barriers are removed and cost-saving benefits are spread in a socially fair way. We called for consideration of energy tariffs that enable households, businesses and community energy projects to participate; and specific support measures to

[8] See ACER (2025): ACER approves EU-wide methodology to assess national electricity flexibility needs. https://www.acer.europa.eu/news/acer-approves-eu-wide-methodology-assess-national-electricity-flexibility-needs

ensure that mid-to-low income households can benefit – and not just those who can afford to electrify their homes and vehicles.

- ☑ **Include a robust and climate-aligned understanding of electrification profile.** FNAs should include a climate-aligned understanding of electrification of heating, transport and industrial sectors when considering future electricity demand profiles. At the same time, FNAs should properly consider the risks associated with overstating potential increases in electricity, particularly related to growth in data centres and other significant load drivers.

- ☑ **Cross-border coordination.** We called for countries to comprehensively analyse and optimise cross-border flexibility to consider benefits and efficiency gains; supported by regional collaboration between TSOs and NRAs, with cross-border modelling.

This check-list was used as a basis for our analysis in this report. We developed a matrix of indicators related to each of the overarching themes, adding a separate indicator related to the market barriers report. A more detailed description of this methodology is set out in the Annex.

## Summary of key findings and conclusions

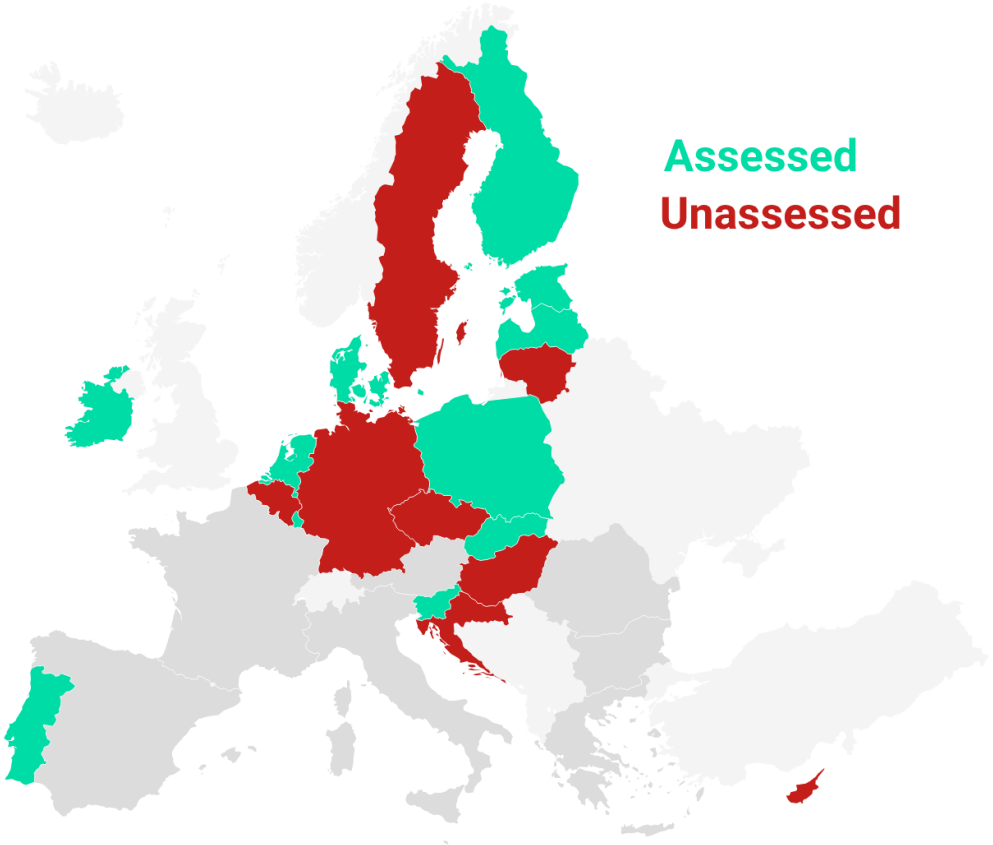
Of the countries we analysed, a number identified no flexibility needed for either (and sometimes both) 2030 or 2035: including Croatia, Czechia, Germany, the Netherlands, Poland and Slovakia. This is despite advancements in a number of these countries to build out new gas capacity in this time.

Where countries did identity flexibility needs, this is often very low volumes. For example, the Polish TSO, PSE, estimates that approximately 16 GWh of additional battery storage capacity would be appropriate for the 2035 system to meet unmet needs, which translates to 4 GW of 4-hour batteries. Meanwhile, Poland's gas-fired electricity generation in 2025: 24.8 TWh/year – meaning the FNA's unmet flexibility figure is equivalent to just 0.23% of Poland's annual gas-fired electricity generation.

Meanwhile, Hungary identifies 43 GWh of solar curtailment it could address via flexible solutions at the distribution grid level – a figure which the TSO notes represents no more than 0.25% of potential domestic solar generation or 0.07% of projected consumption. At the same time, the country is considering the introduction of three gas CCGT units.

## Are TSO needs assessed in the FNA?

Over two-fifths of countries have not conducted an assessment of flexibility needs for the operation of the transmission level




*Data correct as of 26/11/2026*

Map: CAN Europe, Beyond Fossil Fuels • Created with Datawrapper

These outcomes are the result of the narrow approach contained in the methodology of how to analyse the benefits of clean flexibility. Rather than modelling different scenarios and sensitivities to evaluate the socio-economic benefits associated with reduced gas use and dependency, lower electricity prices and lower power system investment needs; the current methodology views flexibility primarily as a tool to reduce curtailment in order to help reach renewable energy targets integration targets under the NECPs.

Additionally, the approach to the analysis maximises all existing assets before identifying a 'need'; maximising the use of gas turbines that were procured for adequacy reasons to provide flexibility needs. This discourages analysis of the benefits that non-fossil flexibility could bring by providing these services instead.

Against the check-list that BFF and CAN Europe set out, we draw the following high-level conclusions of how countries have performed against the key indicators:

- **Fossil gas is still prioritised for flexibility:** No country has meaningfully considered how it would use clean flexibility to replace the role currently played by gas. Some countries scored worse than others due to their strongly pro-gas policies, such as energy market structures designed to benefit gas over batteries.

- **Limitations in the data and analysis could lead to an understatement of clean flexibility:** A challenge faced is the use of out-of-date data on clean flexibility and renewables from the 2024 ERAA. In a number of cases, including Belgium, Czechia, Croatia, Germany and Lithuania, the FNA reports do not include analysis for the flexibility needs of both TSOs and DSOs – which leaves a significant chunk of the network unassessed. Only a few countries consulted openly with stakeholders while preparing their FNA.

- **Countries recognise the need for demand side response, but fall short on fairness:** Almost all countries identified the need for better incentives and support to ensure that households and businesses can participate in flexibility markets. However, none dug deeper in thinking how to support a socially inclusive approach to ensure that it is not just wealthier families who can benefit from smart electrification.

- **A climate-aligned approach to electrification has not been incorporated:** Few countries explicitly considered the future electricity demand profile of key sectors such as heating, transport and industry; and how this could support flexible energy use. With the exception of Portugal, countries did not consider different scenarios for energy-hungry sectors such as electrolysers and data centres; despite the profound impact these will have on the flexibility potential and needs of the power system.

- **Countries worked in isolation and often did not consider crossborder opportunities:** There appears to have been very limited collaboration in the writing of FNAs. The deepest crossboarder analyses we saw were between grid operators that function as a one bidding zone; such as Germany and Luxembourg, and Ireland and Northern Ireland. While some countries analysed crossborder opportunities, the vast majority prioritised national resources.

- **Policy plans are now needed to address market barriers:** We were pleased to see comprehensive analysis of market barriers in countries including Poland, Hungary, the Netherlands, Ireland and Czechia. What is now needed is a clear plan for implementation of the solutions. In other countries, a less comprehensive analysis is provided, or claims that there are no major market barriers, including Lithuania, Portugal and Germany. We believe in these cases a more thorough consultation with market participants is needed to properly understand potential barriers.

# Summary of recommendations

Without major changes made to the methodology, the FNA reports risk systematically underestimating the role that fossil-free flexibility could offer for clean energy security. We provide detailed recommendations for improvements to the methodology in chapter 5. In addition, we make specific recommendations for the ten countries analysed in profiles throughout the report. A high level summary is provided below:

For national governments, energy regulators and TSOs:

- **Publish clean flexibility policy roadmaps** capturing key actions needed to address market barriers to scaling different technologies and solutions, supporting a socially inclusive approach, as well as providing long-term market certainty of policy support to 2035 and beyond.
- **Introduce support mechanisms** to scale the different types of fossil free flexibility, considering bespoke incentives and subsidies to address different investment needs and incentives.
- **Set out a long-term fossil fuel plant exit plan,** identifying a timeline to end dependence and decommission plants, and any necessary parallel measures to remove gas plants from capacity markets.

For the European Commission:

- **Provide a clear mandate** that the FNA methodology must be adjusted to support the phase out of fossil gas by expanding the scope of the methodology and incorporating recommendations set out in this report.

For ACER:

- **Scrutinise national FNAs** to ensure that countries are not underestimating the potential to further scale clean flexibility, nor have overlooked important market barriers that need addressing.
- **Ensure the next version of the FNA methodology** helps put Europe on track for clean energy security, with a focus on reducing dependence on gas.

# **Critique of methodology:** A narrow focus leading to deceptive outcomes

The introduction of FNAs was set out in the revised Electricity Market Design (EMD) regulation (EU 2024/1747). The EMD focuses the FNAs on investigating different flexibility needs to integrate electricity generated from renewables and support decarbonisation on a seasonal, daily and hourly basis.

These provisions were introduced in the context of countries calling for tools to decouple electricity prices from gas by incentivising non-fossil flexibility and to limit the number of hours gas sets the electricity price. It is therefore reasonable to ask to what extent the FNA process supports the reduction of gas in setting electricity prices and providing flexibility.

The methodology was approved by ACER and published in July 2025. It outlines how to measure system-level needs related to renewables integration, ramping[9] and short term flexibility[10]; distribution network flexibility needs; and transmission network flexibility needs. Article 12 of the methodology established cases in which certain parts of the TSO analysis are conditional or optional.[11] No part of the methodology asked countries to consider how they could displace current or planned use of gas for flexibility, with fossil free alternatives.

Renewables integration is measured against the ability to reduce curtailment to support the achievement of national renewable energy targets – reducing renewables waste via storing or shifting energy, to a point in which renewables targets can be achieved.

The narrow scope of the methodology has led many Member States to declare that they have no or very little flexibility needs. For countries already on track to achieve their renewables targets, it is possible to say that no additional flexibility is needed as they don't need to cut curtailment to hit their targets. Meanwhile, in countries off track to meet their targets, a similar conclusion can be drawn - since no amount of flexibility can help achieve targets where there has been insufficient build-out of renewable energy sources.

This gives the impression that ambition is not required when setting targets for energy storage and demand-side response. However, this is not the case, as there is substantial potential for Europe to go further in displacing gas use with clean flexibility. Europe's installed gas capacity stands at

[9] Ramping refers to responding to rapid changes in electricity generation or demand, such as when solar generation drops in the evening.

[10] Short-term flexibility refers to managing unexpected changes in supply and demand, including forecasting errors and balancing requirements.

[11] See ACER (2026): Type and format of data and the methodology for TSOs' and DSOs' flexibility needs analysis. https://www.acer.europa.eu/sites/default/files/documents/Individual%20Decisions_annex/ACER-Decision-05-2025-FNAM-Annex-I.pdf

253 GW, and 91 GW more are under development.[12] Meanwhile, the price of electricity in EU countries is still deeply dependent on gas,[13] and there remains a strong need to harness flexibility and renewables to reduce the role of fossil gas as the price setter.

The short-comings of the methodology are illustrated by the following examples.

## 🇵🇱Poland

### On track to miss renewable target, therefore concludes little need for additional flexibility

The Polish report does not identify any clean flexibility needs for 2030 because the country is off-course to meet its renewables target under the NECP. The report notes (machine translated from Polish, emphasis added):

*"In 2030, there will be a shortfall in renewable generation compared to the renewable energy share target, which cannot be compensated by new flexibility resources. The 51.6% renewable energy share target resulting from the NECP is not met on average.. and the reason for this failure is not a high level of redispatching, but rather insufficient renewable energy capacity.* ***New storage capacities do not contribute to meeting the renewable share target, and therefore their value in meeting this target is zero."***

This conclusion reflects the narrow scope of the FNA methodology, overlooking the other potential advantages that more clean flexibility could bring to the Polish energy system; from cutting consumer energy bills, to reducing dependence on expensive gas plants.

## 🇩🇪Germany

### Hits renewables targets, therefore sees little need for additional flexibility

In comparison to Poland, Germany concludes that due to the fact it is on-track to meet its renewable target, it does not need any more clean flexibility beyond that already factored into the modelling. The TSOs find that since the modelled renewable energy for 2035 is *"significantly higher than the national climate targets, a specific flexibility target from the perspective of renewables integration is not required and no additional flexibility needs have*

[12] See Beyond Fossil Fuels (2026): Gas tracker. https://beyondfossilfuels.org/gas-tracker-tab/ (correct of 11/11/2026)
[13] See Ieefa (2026): Europe's electricity prices are still tied to gas, making geopolitics a structural vulnerability. https://ieefa.org/resources/europes-electricity-prices-are-still-tied-gas-making-geopolitics-structural-vulnerability

*been identified to achieve the NECP."* The regulator concludes: *"There is therefore no perceived need to take further measures to increase available flexibility in this area.*

This conclusion sits uncomfortably alongside the German government's plans to procure around 10GW of gas plants, in a move they claim is a *"necessary complement to the expansion of renewable energies"*. It does not appear that any consideration has been given as to how clean flexibility could have instead met any portion of these system needs.

## 🇧🇪Belgium

### Narrow focus leads to some technologies favoured over others

Another limitation of the current, narrow approach is that it can favour certain clean flexibility solutions over others. The focus on curtailment events led Belgium to conclude that long-duration flexibility will only *"play a minor role in optimal portfolios"*. A more holistic understanding of clean flexibility which also sees it supporting system adequacy and therefore helping reduce reliance on gas plants would likely lead to a different outcome.

Short- and medium-duration flexibility dominates, with *"long-term flexibility only selected in the 2035 constrained transition scenario, representing a small share of total capacity (33 GWh out of 306 GWh), indicating that most curtailment can be addressed without extensive long-duration solutions. Very long-duration flexibility is never selected."*

## 🇮🇪Ireland

### Highlights the limitations of the methodology

Ireland concludes similarly to Poland: "*The available RES generation amounts to a penetration level which is below the NECP target, even with 0% renewable generation curtailment.*" Therefore, there are "*no uncovered renewable integration flexibility needs according to the calculation approach required in the methodology.*"

The Irish FNA critically engaged with the methodology, suggesting areas for improvement. It highlights how the analysis informed by the FNA methodology on ramping and short term flexibility do not reflect national processes informing transmission system operational and planning perspectives, and therefore suggests the outcomes of the FNA *"should not be interpreted as having any meaning towards considerations for operating reserves in the SEM [the wholesale electricity market operating across the entire island of Ireland]."*

The report also considers future improvements to the methodology: "*Selecting a set of inputs which represent a future in line with meeting NECP targets and eventually net-zero would have answered the question of how much flexibility would be required to meet NECP targets rather than the flexibility requirement of meeting a generation adequacy scenario.*"

### 🇱🇹Lithuania

Considering additional ways in which flexibility can benefit the system

Similar to Ireland, Lithuania was unable to find any flexibility needs following the ACER methodology. As a result, it added seven new categories of "specific needs", including for managing uncontrollable solar integration, supporting limited interconnection with Poland, managing generation at the distribution level, and market integration. However, while new flexibility needs were identified, Lithuania claims these needs would likely be satisfied due to future battery trends. Challenging the use of existing gas against non-fossil flexibility was not assessed, which may have shown more opportunities for clean flexibility.

# Recommendations on the methodology

**Broaden the focus of the methodology to ensure that FNAs support a gas phase-out to achieve wider socio-economic benefits of clean flexibility**

This first round of FNA reports has clearly demonstrated that the current methodology leads to outcomes where countries can conclude that they have little to no clean flexibility needs, without needing to consider the wider benefits that replacing gas flexibility with storage and demand side flexibility could offer.

This highlights the need to move away from the narrow focus on how clean flexibility supports renewables integration, and to instead consider how clean flexibility can steadily replace dependence on gas plants for energy system balancing.

FNAs should not just look at the gap of missing flexibility, but actively challenge the use of existing and forecasted gas in providing flexibility. Just because a turbine has been included under ERAA, does not mean it should provide flexibility. For the next version of the methodology, we encourage the inclusion of indicators that would see a reduction of gas in terms of GW of turbines, GWh of electricity produced by gas, and the total number of hours that gas sets the electricity price.

The methodology should ensure LDES is seriously considered for longer duration needs, rather than allowing FNAs to rely on existing and planned gas turbines without further scrutiny of the alternatives. This allows policy makers to make more rounded, informed decisions when setting objectives, strategies and support schemes for flexibility.

Analysis should investigate the socio-economic benefits of increased non-fossil flexibility to better inform policy making. This could include benefits associated with lower costs for consumers and industries, reduced reliance on fossil fuel imports, and reduced emissions from the power sector.

## Expand needs to cover wider flexibility services

The methodology should encourage Member States to investigate needs that could be provided by clean flexibility including emergency measures such as black start, running a country with limited interconnection, large generation loss and more general system stability services such as frequency response and synthetic inertia.

## Policies bias in favour of fossil gas flexibility should be challenged in the market barriers report

Under the current process, FNAs do not require an analysis of whether certain key energy

market policies may favour gas plants over clean flexibility. This is despite clear evidence that key tools, such as capacity markets, currently have a clear bias towards providing contracts to gas plants rather than battery storage – with countries increasingly choosing to 'squeeze' clean flexibility out of the auctions via derating factors which make BESS less competitive compared to gas plants.[14] We encourage ACER to ensure that this is a criteria for the next round of analysis in the FNAs to be included in the market barriers report.

## Use up-to-date, independent and transparent data sources

Many countries used ERAA 2024 data, which although was in line with the methodology, led to outcomes which do not reflect the current market realities and on-the-ground trends. We call for new guidelines that require use of the most up-to-date data, drawing on diverse sources of information which should be clearly and transparently cited.

We encourage a shift towards use of open-source modelling, and public consultation of draft versions of the FNAs to enable feedback from stakeholders. Modelling assumptions and inputs, such as future technology growth, should be subject to consultation.

## Address methodologies which could result in an under-estimation of clean flexibility

In this round of FNAs, we saw the use of methodologies which could dampen ambition for clean flexibility. For example, a number of countries explicitly modelled all existing (and planned) gas plants first in the dispatch order, over clean flexibility technologies. Instead, the methodology should aim to max clean flexibility capacity before using gas plants. Similarly, input assumptions for the FNA should not just take installed fossil capacity as a given, drawn from resource adequacy assessments like the NRAA – but rather seek to see how clean flexibility can meet needs.

[14]Beyond Fossil Fuels (2026) Energy Market Wild West: European capacity mechanism 2026 state-of-play. https://beyondfossilfuels.org/2026/06/23/energy-market-wild-west-european-capacity-mechanism-2026-state-of-play/

## Make the FNAs a tool to support the social inclusivity of clean flexibility

We encourage changes to the methodology to require countries to consider measures to support a more socially inclusive approach to smart electrification. This should go beyond ensuring that theoretically everyone can participate in flexibility markets, to taking proactive steps to support low-income households, smaller businesses and energy communities to share in the benefits of bill reductions associated with clean flexibility.

Policies should prioritise lower-income households for energy efficiency upgrades and flexibility-enabling technologies. This could include for example supporting targeted household measures for energy poor homes such as smart meters, behind-the-meter batteries and solar panels. We would also welcome consideration of how to better support projects that support community benefits – including social housing projects, energy communities and public buildings – to use energy flexibility; in order to maximise all potential benefits.

## Better consider flexibility needs for, and flexibility sources from, a climate-aligned electrification

Despite the demand-side profile of future electricity use being an essential component of future flexibility potential, this area was generally not discussed or examined in detail in the current round of FNAs.

We encourage changes to the methodology to ensure that FNAs include a climate-aligned understanding of electrification of heating, transport and industrial sectors when considering future electricity demand, while considering how plans to decarbonise these sectors can contribute to a more flexible energy system.

FNAs should also properly assess the risks associated with overstating potential increases in electricity demand, particularly that related to growth in data centres; recognising that excessive growth might undermine climate and renewables targets. Different scenarios should be modelled, with transparency of assumptions and modelling used. In countries where data centres are set to make up a significant share of the total electricity use, there is a need for stricter rules enforcing flexibility to help reduce system stress and costs.

## Enhance planning and modelling of cross-border flexibility

The methodology should require more rigorous analysis to optimise cross-border flexibility opportunities and properly consider potential benefits and efficiency gains. This should include consideration of the 15% interconnection target and 70% cross-zonal electricity capacity target to ensure optimal sharing of resources.

We recommend more regional collaboration between TSOs and NRAs to inform FNAs. This should include transparent information sharing and dialogue to assess the benefits, and navigate potential challenges, which could help realise opportunities.

## Operationalise the market barriers reports

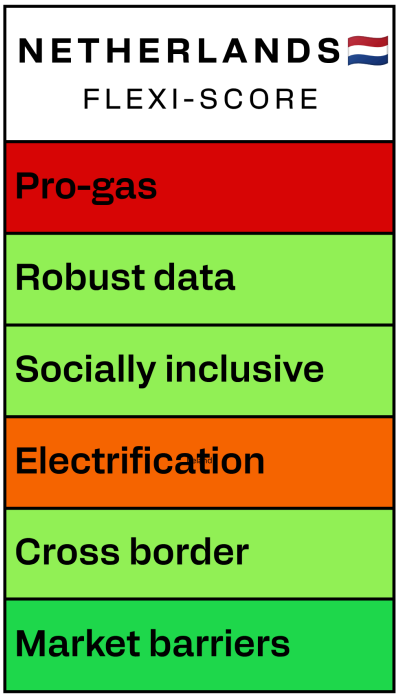
We were pleased to see comprehensive analysis of market barriers in several countries. What is now needed is a clear plan for implementation of the solutions, set out by the energy regulator and national energy ministry, with the involvement of other relevant actors such as system operators and energy agencies.

In FNAs where a less comprehensive analysis was provided, or they claim that there are no major market barriers, we encourage the countries to conduct a public consultation to ensure that major market barriers are not being overlooked.

Countries should then publish Clean Flexibility Policy Roadmaps, and set up new targeted support schemes for these technologies and solutions.

# Country profiles in ranking order

## #1. Netherlands




**Key points:** The Netherlands' FNA stands out for providing some of the strongest analysis, with a thorough inspection of market barriers. While like other countries, it finds no unmet flexibility needs, the report nonetheless recognises the importance of clean flexibility support mechanisms and policies, highlighting that it would be unwise to assume that solutions will *"automatically be delivered by the market"*. An important limitation of the Dutch analysis is that it is not climate-aligned, as the FNA is based on a 'Delayed Transition' scenario which is not aligned with national climate targets.

**Key recommendations:** We encourage the Netherlands to consider a climate-aligned scenario in its next FNA, as well as considering ways that clean flexibility could help further reduce reliance on fossil gas. We encourage the government and energy regulator to address the market barriers set out in the report, publishing a clean flexibility policy roadmap.

### Prioritise clean flex over fossil gas

● strongly misaligned

Similar to other reports, the Dutch FNA does not consider how clean flexibility can displace the role of gas. While the report highlights the contribution of different clean flexibility beyond renewables integration, the flexibility needs analysis remain limited by the scope of the methodology.

Concerningly, the FNA is based on a delayed transition scenario which is explicitly not aligned with climate targets. They note this "assumes slower electrification, lower renewable generation growth, delayed hydrogen development, lower deployment of large-scale flexibility assets, and a slower phase-out of conversion of fossil capacity."

The FNA does not consider a scenario where the Netherlands achieves, or goes beyond its climate goals.

Dispatchable generation is considered key for meeting upward flexibility. A reduction in fossil-based flexibility from coal (-4 GW) and gas (-5.5 GW) is expected by 2035; but 14.4 GW of gas plants is expected to remain in 2030 and 12.4 GW in 2035. They consider a configuration where up to 5 GW of additional Dutch CCGT capacity is available.

## Robust, independent, transparent data

partially aligned

The Dutch FNA analysis appears based on rigorous and transparent data, bringing in a range of additional sources in addition to the ERAA, which are transparently cited. The analysis considers both TSO and DSO flexibility needs, including detailed localised analysis of different regions of the country.

As previously noted, it falls short on not considering a climate aligned scenario.

## Inclusive approach to clean flexibility

partially aligned

The Dutch market barriers report contains a thorough assessment of how clean flexibility could be unlocked for more households, energy communities and distributed energy assets. The report does not consider how clean flexibility could benefit lower income homes, nor address energy poverty, but does assess many ways in which clean flexibility could become more widely accessible.

It considers the importance of tariffs and smart meters; as well as barriers associated with limited consumer awareness, a lack of trust and concerns for comfort. The report considers barriers facing energy communities, and notes the need for an “inclusive expansion”. It notes that at present, it is larger storage assets who tend to benefit from flexibility markets, with barriers to the participation of distributed energy resources.

## Climate-aligned electrification

partially misaligned

Since the report uses a scenario which is not climate aligned, the analysis therefore considers lower rates of electrification than would be needed to meet targets. While the role of electrification is cited throughout the report as a key factor determining flexibility, there is no deeper analysis on the future demand profile of key sectors such as heating, transport and industry.

While the report does highlight the flexibility needs associated with data centres in the Haarlemmermeer region of Noord-Holland, there is no deeper analysis on how energy-hungry data centres could impact the country's flexibility profile.

## Cross-border coordination

partially aligned

The Netherlands is one of the most energy interconnected countries in Europe. The Dutch FNA is one of the few reports which centrally considers the role of interconnectors and cross-boarder flexibility for meeting different needs – reaching 12.6 GW by 2035. We note that the report does not model different countries as comprehensively as other FNAs, such as Belgium and Lithuania.

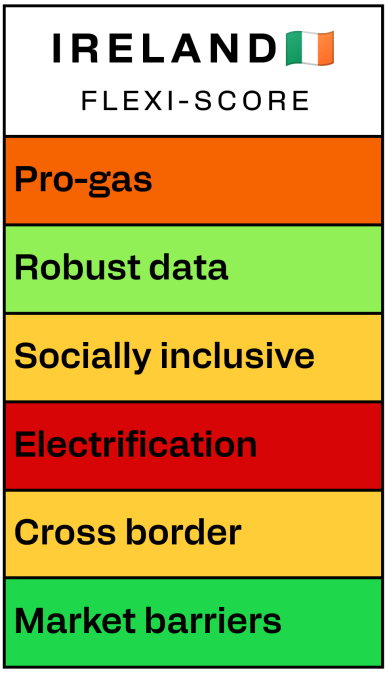
## Analysis of market barriers

strongly aligned

The Dutch market barriers report is one of the most comprehensive we have seen. It sets out barriers which may be either a hurdle, or prohibitive, to the realisation of different clean flexibility technologies.

Key barriers relate to unlocking potential from distributed energy resources, new investments, addressing grid congestion, and the current high risk exposure by offering flexibility. The report sets out next steps for policy decision makers, as well as the DSOs and TSO.

## #2. Ireland




**Key points:** We welcome that the Irish FNA critically engages with the methodology, highlighting the limitations of focusing on renewables integration, and provides clear caveats regarding the applicability of the findings due to the limited scope of the analysis. An important limitation of the FNA is the lack of scrutiny on how electricity demand profile could shape Ireland's future flexibility potential and needs; and how data centre expansion will shape future flexibility needs.

**Key recommendations:** We encourage Ireland to show leadership in expanding the scope of the analysis to include the displacement of gas with clean flexibility. Ireland is already taking steps to support different clean flexibility technologies, and we encourage the government to set out an ambitious target and roadmap to help reduce the country's dependence on gas.

### Prioritise clean flex over fossil gas

● partially misaligned

The analysis set out in Ireland's FNA is principally focused on how clean flexibility can help the integration of renewables; and similar to other countries, finds "no uncovered RES integration flexibility needs according to the calculation approach required in the methodology".

Looking across Ireland's policies, certain mechanisms like the capacity market clearly prioritise gas over clean flexibility – with a share of payments 77% thermal vs. 18% clean as of 2025.[15] We note that reforms are underway to support a fairer playing field for batteries for the next 10 years of the capacity market. Nonetheless, the de-rating factor for BESS has been cut for the next auction, which will make it less competitive against gas. On a more positive note, Ireland is in the process of setting up Long

[15] See Beyond Fossil Fuels (2026): Capacity remuneration mechanisms in Europe. https://beyondfossilfuels.org/wp-content/uploads/2025/01/20250123_Aurora_BFF_CRM-Report_final.pdf

Duration Energy Storage (LDES) Procurement Mechanism, which places it ahead of other EU countries.[16]

## Robust, independent, transparent data

partially aligned

The Irish FNA contains a mixture of data from ERAA 2024, as well as additional data sources from the TSO and DSO; with the sources transparently cited for additional data inputs. Both TSO and DSO flexibility needs are analysed. The Irish TSO considers the years 2028 and 2030, but not 2035. A 'High renewables' scenario was developed for the FNA "to work within what is allowed in the methodology to.. offer useful insights into the value of flexibility in reducing RES dispatch."

Due to differences in interpretation of key terminology and approaches contained in the methodology, the FNA it is made clear that outcomes of the analysis "should not be interpreted as having any meaning towards considerations for operating reserves in the SEM [the decision-making body that governs the wholesale electricity market].

## Inclusive approach to clean flexibility

neither fulfilled our criteria, nor violated them

The Irish FNA includes references to measures that would support a more socially inclusive approach to clean flexibility, including the need to address the lack of participation pathways for energy communities. It notes the limited presence of aggregators as a potential barrier to participation for smaller flexible service providers. However, there is a lack of a more profound consideration of how to ensure a socially equitable approach to sharing the benefits of clean flexibility, including to address energy poverty and high energy bills.

## Climate-aligned electrification

strongly misaligned

Similar to other reports, Ireland's FNA does not explicitly analyse the demand profile associated with the electrification of key sectors, such as heating transport and

[16] See EirGrid (2025): Long Duration Energy Storage (LDES) Procurement Mechanism Consultation. https://consult.eirgrid.ie/en/consultation/long-duration-energy-storage-ldes-procurement-mechanism-consultation

industry – nor how this could impact the country's future flexibility needs and resources.

Data centres now take up a quarter of Ireland's electricity demand, but there is only passing reference to this industry: "the growth of data centre Large Energy Users could create barriers if those users are unable to meet Grid Code system stability requirements." There is no modelling of different potential electricity demand scenarios associated with data centre build-out, as seen with Portugal's analysis of electrolysers, which is something Ireland could consider in future FNAs.

## Cross-border coordination

🟠 neither fulfilled our criteria, nor violated them

The Irish FNA fully considers the energy profile of Northern Ireland in its analysis, with the Utility Regulator having undertaken an FNA for Northern Ireland. There is also some reference to the role that interconnection with Great Britain plays, noting that the "lack of locational signals can diminish incentives for flexible resources to develop in ways and locations such that they could help meet locational flexibility needs."

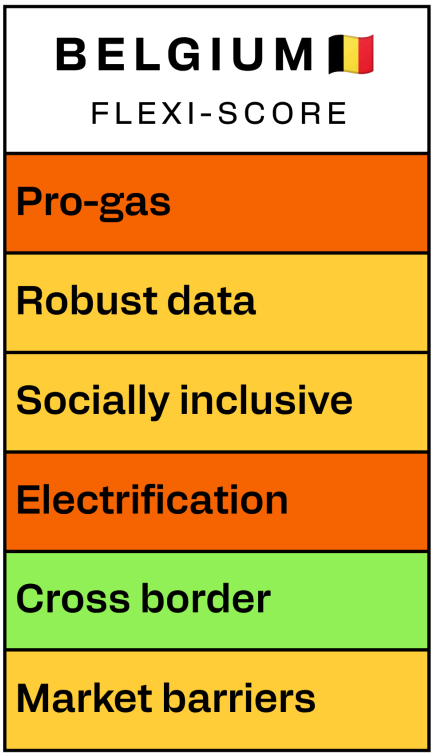
However, it is not clear if they collaborated with British authorities while compiling the report, nor is there more detailed analysis of opportunities to optimise cross-boarder flexibility, including with the interconnector with France.

## Analysis of market barriers

🟢 partially aligned

The Irish FNA provides a comprehensive review of market barriers to clean flexibility, and sets out some of the steps that it is taking to address these. This includes changes to the capacity market to make it more open to batteries, as well as supporting procurement mechanisms for Long Duration Energy Storage. We encourage Ireland to show leadership in supporting clean flexibility approaches, and committing to a long-term plan to phase out gas plants.

## #3. Belgium




**Key points:** We welcome that the Belgium FNA was open for public consultation, and contains extensive analysis of cross-border capacities. The analysis strays slightly from how other countries have interpreted the methodology. It compares different approaches to meet renewables targets – via scenarios of zero curtailment and very high levels of clean flexibility deployment; versus unbridled curtailment and high levels of renewables build-out. The FNA does not consider how clean flexibility can help reduce reliance on gas.

**Key recommendations:** We encourage Belgium to consider how it can boost clean flexibility as a way of reducing dependence on fossil gas, while also continuing to build-out its renewables base. We encourage the energy regulator to work with the government on a detailed roadmap and timeline for implementation of measures to support the deployment of a wide profile of flexibility technologies and approaches.

### Prioritise clean flex over fossil gas

partially misaligned

The analysis in the Belgium FNA is not focused on displacing gas, and all existing thermal capacities are assumed to remain in the market in the analysis. A slow build out of renewables has made the country more dependent on thermal assets, since it was not ready for its 2025 nuclear phase-out. Short-term flexibility is identified as the primary type needed, rather than LDES – which would have been the case if the focus was reducing dependency on gas.

While the country's capacity market has enabled a significant amount of batteries to be procured, gas plants remain the principal beneficiary out of the total value of the contracts.[17] Compared to other capacity markets, the Belgian auctions are more open to batteries: with Elia rewarding 1.6 GW of capacity for 2028-2029, including 0.5 GW of new batteries, while batteries account for 61.75% of the capacity selected for 2030-31.[18]

## Robust, independent, transparent data

🟠 neither fulfilled our criteria, nor violated them

We welcome that Belgium is one of the few countries that publicly consulted on its FNA. The TSO consulted with the DSOs. More up-to-date data has been added on top of the 2024 ERAA data. However, the sustainable energy industry group ODE Vlaanderen underscores that this still falls short. They note that a large number of battery farms have been added, many applications for new projects have been approved, and many PV owners have invested in systems to enable them to control their generation.[19] Thus, the FNA data inputs do not reflect on-the-ground trends.

The FNA does not consider the different flexibility needs of its DSOs or TSO, and only looks into the more general category of "T/DSO connection needs points."

The analysis contains scenarios considering "current commitments" and "constrained transition", but does not consider a scenario in which renewables deploy even faster.

## Inclusive approach to clean flexibility

🟠 neither fulfilled our criteria, nor violated them

Decentralised technologies are included in analysis, and it is highlighted that attention is needed to unlock the flexibility potential of electric vehicles and heat pumps.
However, the FNA does not deeply analyse how Belgium can ensure a truly inclusive approach to clean flexibility wherein mid-to-low-income households can also see the benefits of lower bills.

[17] See Beyond Fossil Fuels (2026): Energy market "Wild West": European capacity mechanism 2026 state of play. https://beyondfossilfuels.org/2026/06/23/energy-market-wild-west-european-capacity-mechanism-2026-state-of-play/

[18] See PV Magazine (2026): Batteries to dominate Belgium's capacity remuneration mechanism. https://www.pv-magazine.com/2026/11/03/batteries-to-dominate-belgiums-capacity-remuneration-mechanism/

[19] See ODE Vlaanderen (2026): Consultation response to the Belgium FNA

## Climate-aligned electrification

partially misaligned

The Belgium FNA contains a "constrained scenario" which considers lower rates of electrification, but the focus is on heat pumps, EVs and end user flexibility. They do not consider a faster growth scenario. However, ODE Vlaanderen highlights the growing electrification rates in Belgium, and the demand flexibility opportunities that come with this.[20] They also note that data on availability demand side flexibility in the FNA is lower than publicly available data from the DSO Fluxius.

The role that data centres may play in the future demand-side profile of Belgium does not appear to have been scrutinised.

## Cross-border coordination

partially aligned

Compared to other countries, Belgium includes a fairly comprehensive analysis of cross-border flexibility. When assessing the renewables integration needs, cross-border flexibility is accounted for throughout the assessment of the system needs.

The economic dispatch simulations are conducted for Belgium in an interconnected European system under its Adeqflex'25 model. Shares of available cross-border flexibility in intra-day and balancing capacity are accounted for based on current observations. It is not clear if the country has consulted with neighbouring countries when completing the analysis.

## Analysis of market barriers

neither fulfilled our criteria, nor violated them

Belgium provides a high-level summary of market barriers, but it does not provide the same level of detail as other countries in terms of the measures that could be used to address these challenges. It does not set out commitments nor a timeline to implement policy and financial solutions to support clean flexibility solutions. We encourage the energy ministry and energy regulator to set out a detailed, timebound plan to address the issues identified in the report.

[20] Ibid

## #4. Hungary

| HUNGARY 🇭🇺 FLEXI-SCORE |
| --- |
| Pro-gas |
| Robust data |
| Socially inclusive |
| Electrification |
| Cross border |
| Market barriers |

**Key points:** While Hungary's FNA finds that flexibility is needed for meeting upward and downward power variation, gas and oil fired plants are considered of "paramount" importance for meeting these; alongside storage, interconnection and demand side flexibility. Due to the narrow scope of the methodology, despite the country's solar boom, the FNA finds no flexibility needs associated with meeting renewable integration targets. The report contains a fairly comprehensive review of market barriers, and sets out steps to be taken to address them.

**Key recommendations:** Hungary should be more ambitious in reducing its dependence on fossil power plants via expanding renewables and clean flexibility. More investment in wind energy would help to diversify the renewables portfolio. It could go further to consider how scaling up long-duration energy storage could play a role in this, considering the introduction of a support scheme should a purely market-based approach prove insufficient. We encourage Hungary to push harder on demand side response to address the 200 hours of curtailment of solar energy.

### Prioritise clean flex over fossil gas

● strongly misaligned

The report underscores that the country considers gas and oil fired power plants will remain 'paramount' for meeting flexibility needs. Elements considered key are the construction of three new combined-cycle gas turbine plants in the medium term and the commissioning of Paks II nuclear plant.[21] It appears that the country will increase its fossil flexibility to 2035.
While Hungary is not the only country looking to construct new gas plants, it feels like a missed opportunity that the FNA did not consider whether it could reduce current and future dependence on gas via clean energy, including wind, long-duration energy storage and demand side flexibility.

[21] The commissioning of Paks II is currently under revision by the new Hungarian government.

## Robust, independent, transparent data

partially aligned

The Hungarian analysis is comprehensive, with the TSO MAVIR coordinating with the national DSOs. Data is taken from ERAA 2025 and the Network Development Plan (HFT 2025). The FNA was not publicly consulted upon.

The assessment of system flexibility needs was based on the ERAA 2025 reference scenario; and the assessment of transmission and distribution network flexibility requirements is based on data from HFT 2025. It is noted that there is a significant difference in key figures from the ERAA data and current trends in the 2026 Network Development Plan. In particular, forecasts for industrial electricity storage are "significantly higher than the figures published by ERAA for 2025 based on known requests (conservative: 2,902 MW/5,803 MWh; optimistic: 4,900 MW/9,799 MWh)".

HFT foresees less wind build than in ERAA, but includes "a more dynamic expansion of [decentralised, small-scale solar] and grid-connected PV: total PV forecasts of 14.7 and 16.8 GW for 2031 and 2036, respectively." The FNA expects an additional 4 GW of wind from 2030. However, the HFT assumes only 1.1 GW by 2035. This highlights the need for more effort to be placed on wind acceleration.

The report identifies no transmission network flexibility needs, and the FNA concluded that an examination of upward and downward requirements "was not warranted" under the methodology.

## Inclusive approach to clean flexibility

neither fulfilled our criteria, nor violated them

The benefits and importance of demand side response are captured in the report. The market barriers report covers legal barriers to market entry for new entrants and small players. It highlights that more progress can be made to promote flexibility, including smart metering, as well as price signaling and time-of-use electricity consumption contracts. Energy communities are considered in the market barriers report. However, there is no consideration of how to ensure more low-income households might be better supported to benefit from these measures as part of measures to alleviate energy poverty.

## Climate-aligned electrification

strongly misaligned

Hungary's FNA contains very limited discussion or analysis of the demand side profile of electrification trends, beyond what is contained in ERAA, with no discussion on how the electrification of heating, transport and industry in Hungary could impact the country's flexibility profile. There is no mention of how energy-intensive sectors, like data centres, might also impact the country's future flexibility profile.

## Cross-border coordination

partially aligned

The Hungarian FNA considers cross-border flows and constrained cross-boarder flows, and notes that these will be important for helping meet certain flexibility requirements, and can effectively eliminate downward flexibility requirements.

The FNA considers ERAA to be too optimistic on cross-border capacity, and takes a more conservative approach. They also note that "an optimistic assessment of cross-border capacity would obscure the need to improve the flexibility of the domestic system."

We welcome that the report underscores the importance of continued action and investment on interconnection in order to meet different flexibility needs. "To meet flexibility requirements, it is important that adequate cross-border capacities be available; which requires not only the implementation of already planned cross-border projects but also the systematic elimination of the bottlenecks that most frequently limit domestic import and export capacity during flow- based capacity calculations—a process that also involves foreign transmission network elements."

We note that Hungary joined the European balancing energy platforms (MARI, PICASSO) in October 2026. The FNA recommends examining participation in a European balancing capacity market integration project such as ALPACA.

## Analysis of market barriers

partially aligned

The market barrier review appears comprehensive, and also includes measures that are in the process of being undertaken, or are planned for implementation, to help overcome these challenges. The report notes that MAVIR was requested to implement provisions in the amendments to the Electricity Act, set out in Act XXXVI of 2026, "as well as to supplement the proposals regarding the implementation of the provisions". We welcome that the country is being proactive in looking to overcome market barriers.

The FNA recommends scaling flexibility through purely market-based operation, without operating support. While there is an important role for market-based solutions, given the need for the rapid decarbonisation of the power system, further support with these investments might need to be considered. We encourage them to consider the introduction of specific support mechanisms to help scale long-duration energy storage; and set out a national flexibility policy roadmap to help scale the different clean flexibility technologies.

More attention is also needed to scale demand side response. The new government announced that they will not change the current administrative retail pricing scheme for half hourly settlements. Time-of-Use tariffs have been introduced as a theoretical option, not used in practice, as this was a prerequisite in the Recovery and Resilience Facility fund withdrawal.

## #5. Lithuania

| LITHUANIA 🇱🇹 FLEXI-SCORE |
| --- |
| Pro-gas |
| Robust data |
| Socially inclusive |
| Electrification |
| Cross border |
| Market barriers |

**Key points:** Lithuania focuses on a "Slower Transformation scenario", which sees a slow roll-out of renewables. The report goes beyond the FNA methodology in considering additional flexibility needs beyond those officially required. However, what little additional flexibility needs it finds, the report claims that these will be met via developer "protocols of intent" for battery grid connections. Lithuania does not look to actively lower gas plant dependency through the use of non-fossil flexibility.

**Recommendation:** The next Lithuanian FNA would benefit from evaluating how new sources of clean flexibility could reduce the use of gas in the power sector, and evaluating the associated socio-economic benefits. Further analysis of the potential of demand-side response to provide flexibility should also be assessed.

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### Prioritise clean flex over fossil gas

partially misaligned

Lithuania has a target for domestic electricity consumption to be met by 100% renewable power by 2028. However, the FNA makes it clear that gas turbines will be used in 2035 as a "long-term resource" to cover demand over 4 hours.

Lithuania currently has 1,151 MW of gas turbine capacity.[22] Unlike most other countries, it has placed 600 MW of this in an emergency reserve, outside of the market. This means that those turbines cannot compete against clean flexibility under this assessment – opening up the opportunity for clean flexibility to provide power, rather than having fossil gas set the electricity price. However, the FNA does not analyse a scenario in which long duration storage reduces the use of turbines in providing flexibility, to support lower prices.

The FNA notes that when periods which require longer durations of flexibility were detected in the model, gas turbines could always be ramped up to meet the need,

[22] See Beyond Fossil Fuels (2026): Gas Tracker. https://beyondfossilfuels.org/gas-tracker-tab/

rather than utilising clean flexibility:"it is assumed that the entire long-term flexibility needed is covered by conventional power plants" favouring gas turbines over the possibility of long duration energy storage. Demand-side response is not considered in the analysis.

## Robust, independent, transparent data

neither fulfilled our criteria, nor violated them

Lithuania does not model a scenario based on the country's strategic planning documents (i.e. NECP, ERAA), but instead a "Slower Transformation" scenario, which sees lower renewable deployment. Unsurprisingly, this shows lower flexibility needs. However, residential solar deployment remains high under this 'Slower' scenario, reflecting current trends. The modelling and analysis does not prepare Lithuania for a situation where renewable build-out picks up faster.

Lithuania goes beyond the FNA methodology and introduces seven new categories of flexibility needs. These new "specific needs" include FCR, mFRR and aFRR, emergency country isolation mode, boosting efficiency of Lithuania-Poland interconnector with new flexibility sources, solving market imbalances, managing excessive solar injection, and managing reverse power flows from distribution network to transmission. DSO network needs are conducted, but TSO needs are not.

## Inclusive approach to clean flexibility

partially misaligned

Lithuania has a high level of smart meter deployment, and there is a passing reference in the report to introducing more dynamic tariffs and time-of-use. However, similar to other FNAs, the report does not analyse how Lithuania can ensure an inclusive approach to clean flexibility wherein mid-to-low-income households can also see the benefits of lower bills.

## Climate-aligned electrification

neither fulfilled our criteria, nor violated them

The report acknowledges the significance of electrification of heating and EVs and their impact on distribution systems, identifying the need for upwards flexibility partially between 17:00 and 20:00 in the evening. The growth of heat pumps and EVs

are modelled on a linear growth, with using specific algorithms to distribute these assets based on location.

On industrial electrification, the report foresees properties that are currently without electricity will switch to electricity at a rate of 5% annually. This is the only report we analysed that expressed a clear electrification rate for a specific sector. However the use of a slower transformation scenario hinders this rate of electrification being climate aligned.

## Cross-border coordination

🟢 strongly aligned

Lithuania models the capacity of interconnection with its neighbours. Following the synchronisation of the Baltics with Continental Europe, cross-border flow between Poland and Lithuania is restricted to ensure safe and stable operation. An additional need is examined to identify what level of flexibility can help best utilise this limited capacity.

The FNA models a sensitivity in which interconnections are limited, to explore what further flexibility would be needed to mandate operations under exceptional circumstances. This ensures system operability under emergency conditions with the help of non-fossil flexibility, while still benefitting from interconnection under normal conditions. Using sensitivities in this way offers a fair analysis; investigating limited interconnection in emergency situations, rather than assuming poor interconnection as a default which could be used to justify the necessity of gas turbines.

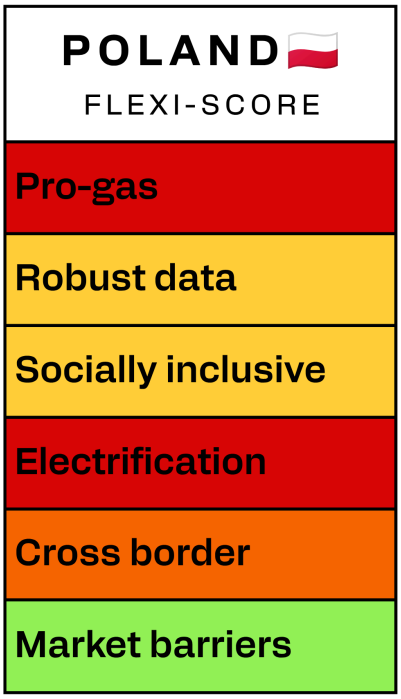
Improvements could be made by working more closely with Poland, Sweden, Sweden, Latvia, and Estonia during the next FNA cycle.

## Analysis of market barriers

🟠 neither fulfilled our criteria, nor violated them

Lithuania's market barriers report responds to the questions set out by ACER. It finds that many aspects of EU legislation relevant to supporting the deployment of non-fossil flexibility have been implemented. However, the report identifies that more could be done to incentivise the TSO to procure flexibility. No policy roadmap is provided on how to tackle remaining barriers.

## #6. Poland




**Key points:** Poland has comprehensively surveyed the market barriers to clean flexibility; identifying a number of crucial solutions that could help boost the market. The analysis finds that the country is off track to meet its renewable target for 2030, and argues no amount of new flexibility can help meet this target. The gap for both system- and grid-related flexibility is very low for 2035, due to the narrow scope of the methodology.

**Key recommendations:** We encourage the Energy Ministry in Poland to set out a roadmap and timeline for implementation of the measures identified in the market barriers report. We urge for a reassessment of policies that currently favour gas over clean flexibility, notably the capacity market, and call for new analysis considering how clean flexibility can steadily displace the role of fossil fuels in the energy system.

### Prioritise clean flex over fossil gas

🔴 strongly misaligned

Poland ran its analysis in line with the methodology with the focus on the level of renewables integration needed to meet targets under the NECP, and therefore did not consider how clean flexibility can replace gas. When modelling flexibility needs; dispatchable assets like gas plants are prioritised ahead of BESS and other clean resources in the dispatch order. This means maximising gas turbines, procured for adequacy reasons, to provide short term flexibility – rather than considering the potential benefits of additional clean flexibility.

More broadly, Poland's energy market policies generally favour gas over clean flexibility – clearly seen with the capacity market, where derating factors have been lowered for BESS to ensure that gas plants have a competitive advantage.

### Robust, independent, transparent data

🟠 neither fulfilled our criteria, nor violated them

The TSO, PSE, has done a good job of providing analysis as required by the FNA methodology – including analysis of both TSO and DSO needs, as well as consideration of a 2035 renewables target. The TSO has used data from the 2024 ERAA, in line with the ACER methodology but likely to be outdated. This dataset is complemented by additional data from the DSOs and TSO, some of it unclearly sourced. The FNA was not publicly consulted on.

## Inclusive approach to clean flexibility

🟠 neither fulfilled our criteria, nor violated them

The Polish market barriers report identifies a number of hurdles which can make it harder for prosumers to participate in the market. The FNA considers how energy tariffs can help incentivise households businesses to participate and be rewarded in flexibility markets. However, similar to other countries, the report does not consider the more profound changes that would be necessary to ensure that the benefits of clean flexibility are shared in a socially inclusive manner, and used to address issues of energy poverty.

## Climate-aligned electrification

🔴 strongly misaligned

The Polish FNA does not contain information on the demand profile of future expected demand for electricity, nor does it consider different scenarios nor the risks associated with overstating potential electricity growth. The TSO has elsewhere provided data on electrification of transport and heating in its grid development plan.[23]

The model assumes average demand of around 189 TWh in 2030 and 203 TWh in 2035. A key issue is how this demand is interpreted, and a limited consideration of changes on the consumer side. In a system with increasing self-consumption, local generation, energy storage, heat pumps and EVs, it is important to distinguish between total electricity consumption and the net demand seen by the central power system. Electrification may increase total electricity use, while the well-managed control of these loads can significantly increase system flexibility.[24]

[23] See PSE (2026): Draft of a new transmission network development plan for 2027-2036. https://www.pse.pl/-/projekt-nowego-planu-rozwoju-sieci-przesylowej-na-lata-2027-2036

[24] See Onet (2026): Energy that the system doesn't see. https://www.onet.pl/informacje/odpowiedzialny-inwestor/energia-ktorej-system-nie-widzi/csy0bfv,0666d3f1

## Cross-border coordination

partially misaligned

At a high level, the report recognises that cross-border interconnections are an important element in meeting flexibility needs. There are some mentions of digital solutions that would make cross-border cooperation easier.

However, the study states that "due to the limitations of crossborder exchange modeling.. it is not possible to assess whether further increases in crossborder exchange would lead to an increase in the available system flexibility." It does not appear that there was collaboration with neighbouring TSOs in writing the report.

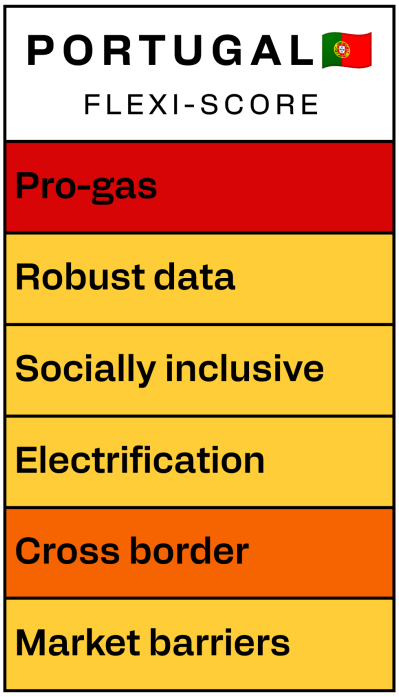
## Analysis of market barriers

partially aligned

The Polish FNA sets out a comprehensive analysis of the market barriers to clean flexibility, making a list of policy recommendations. These relate to digitalisation, as well as streamlining and unifying the system. There is also a focus on enabling prosumers to participate and benefit from flexibility, with a framework for aggregation to allow for the provision of market services – including flexibility services or balancing services, as well as fair billing of prosumer installations. The efficient transposition of EU regulations is also highlighted.

The next step needs to be a plan and timeline for implementing the measures set out in the report. We encourage the Ministry and the energy regulator to work together on a clean flexibility roadmap to implement these measures. We also call for consideration of how changes can be made to the capacity market to allow for better access for batteries.

## #7. Portugal




**Key points:** In September 2026, Portugal published a national storage strategy, with a target to achieve 6.9 GW electricity storage by 2030. It is not clear if this was informed by the FNA process, which found that by 2030, with 2-3 GW additional clean flexibility installed, renewable energy waste would be virtually eliminated. The strategy was critiqued by energy experts at ZERO for not considering scenarios with no fossil gas. The Portuguese FNA is one of the few reports which models a scenario with lower electricity demand related to lower installed capacity of electrolysers; but falls short on other areas: with only a shallow review of the market barriers, and only a risk-adverse consideration of cross-border flexibility opportunities.

**Key recommendations:** We encourage Portugal to set out how clean flexibility can help the country fully phase-out gas plants, with a climate-aligned approach to electrification which balances the needs of sectors to decarbonise, versus the projected demand from data centres. The storage target should be increased and expanded to include demand response and distributed storage.

### Prioritise clean flex over fossil gas

🔴 strongly misaligned

As with the other FNAs, Portugal's analysis is focused on reducing renewables curtailment, rather than considering the role that clean flexibility can play in reducing reliance on fossil gas.

Certain aspects of the FNA could result in policies that favour gas over clean flexibility. Demand side flexibility is not considered in the TSO system needs analysis. Furthermore, gas CCGTs are listed first in the dispatch order when undertaking the analysis. "In order to contribute to the gradual reduction of the identified flexibility requirements, flexibility resources were introduced in the following order:

combined-cycle thermal power stations, reservoir hydroelectric power stations, pumped storage, batteries and, finally, consumption by electrolysers."

Another factor in the background is the introduction of a capacity market in Portugal. ACER has warned that Portugal's NRAA may overestimate Portugal's adequacy gap due to bullish expectations on data centres, and underestimations of demand side flexibility and interconnection.[25]

## Robust, independent, transparent data

neither fulfilled our criteria, nor violated them

Portugal has used data from the 2025 ERAA. The report is transparent about additional data sources used. Two sensitivities were considered: the first considers a lower interconnection capacity compared with that assumed in the base scenarios; and the second considers a lower installed capacity of electrolysers and offshore wind power than that forecast in the NECP. We note that more ambitious scenarios of clean energy take-off are not considered.

The report notes that due to time constraints, "it was not possible to involve external stakeholders in a timely manner; this has been identified as an area for improvement in future updates."

## Inclusive approach to clean flexibility

neither fulfilled our criteria, nor violated them

The FNA notes that Portugal has already taken a number of steps to ensure that more participants can benefit from clean flexibility, noting an increasing number of flexibility market participants, as well as the successful roll-out of smart meters, across 99% of the population. Initiatives to support smarter, more digitalised distribution grids are also highlighted, including the Smart Grid Services Regulation.

However, there is no consideration of how to ensure more low-income households might be better supported to benefit from these measures as part of measures to alleviate energy poverty.

[25] See ACER (2026): Opinion on Portugal's National Resource Adequacy Assessment. https://www.acer.europa.eu/news/acer-calls-better-market-modelling-data-centre-demand-outpaces-electricity-supply-portugal

## Climate-aligned electrification

🟠 neither fulfilled our criteria, nor violated them

We welcome that Portugal has considered a scenario with lower uptake of electrolysers. This FNA is the only one we have seen which considers a lower potential uptake of energy-hungry technologies. However, we note there is no mention of data centres or the impact that different scenarios may have on the overall results. As noted, the role of demand side response is also largely overlooked in the analysis, despite growing electrification of transport, homes and industries.

ACER's review of Portugal's NRAA similarly highlighted that lack of consideration of demand side flexibility, combined with high expected electricity demand expected with data centre growth, and considers it unjustified that Portugal has not considered demand side flexibility.[26]

## Cross-border coordination

🟠 partially misaligned

The Portuguese FNA models a scenario with lower interconnection, but does not consider more optimistic scenarios where cross-border connection is optimised. It does not appear that the Spanish TSO was consulted while compiling the report.

## Analysis of market barriers

🟠 neither fulfilled our criteria, nor violated them

The Portuguese FNA maps out various regulations, initiatives and pilots underway to support growth in clean flexibility; and indeed we welcome that the country has been a pioneer in supporting clean flexibility markets. It is concluded that "although some opportunities for improvement were identified, there are no significant barriers to the entry of flexibility resources into the system that are not already being addressed by measures aimed at mitigating them".

We encourage the government and energy regulator to publicly consult to understand if there are further barriers that need addressing.

[26] See ACER (2026): Opinion on Portugal's National Resource Adequacy Assessment. https://www.acer.europa.eu/news/acer-calls-better-market-modelling-data-centre-demand-outpaces-electricity-supply-portugal

## #8. Czechia

| CZECHIA 🇨🇿 FLEXI-SCORE |
| --- |
| Pro-gas |
| Robust data |
| Socially inclusive |
| Electrification |
| Cross border |
| Market barriers |

**Key points:** As the modelling contained in the report assumes renewables integration needs will be satisfied, Czechia finds no additional flexibility needs are required. The report notes that it could nonetheless be beneficial to reduce renewable curtailment and integrate higher levels of renewable power. The FNA relies on old data for wind and solar, uses out-of-date assumptions on batteries, and does not assess market-based demand side response.

**Recommendations:** The Czech FNA would benefit from evaluating the socioeconomic benefits of increased clean flexibility against the use of existing and planned fossil gas plants. It is also essential to model implicit demand-side response.

### Prioritise clean flex over fossil gas

🔴 strongly misaligned

No new non-fossil flexibility needs are identified under the methodology, and the benefits of reducing gas usage on electricity prices and security of supply are not assessed. The Czech FNA does not have a focus on displacing gas as a source of power system flexibility. The analysis sees an increase in gas turbine capacity from 3,396 MW in 2030 to 4,754 MW in 2035.

The battery trajectory is limited at 15% of the total of installed wind and solar PV capacities. This unnecessarily limits their potential to grow faster. Implicit demand-side response, in the form directed by price signals, is explicitly not modelled due to “high degree of uncertainty surrounding future developments”. No sensitivity was performed to capture potential benefits.

### Robust, independent, transparent data

🔴 strongly misaligned

While the FNA foresees the RES integration target being met, this may not be the case under current trajectories. A high ratio of solar-to-wind is likely to lead to higher flexibility needs, with a need for faster deployment of wind power.

Wind and solar data for 2030 and 2035 are taken from 2023 reports, relating to ERAA and the NECP. For wind, the FNA assumes 1,485 MW by 2030 in its analysis. However, under current trajectories, the country is likely to miss this, with only 380 MW of wind installed in 2025. Solar growth is better placed to meet the NECP goal of 10,100 MW. Nonetheless, a sustained effort will be required to increase the volume from 5,359 MW as of June 2026.

TSO and DSO needs are not considered, meaning that the potential for non-fossil flexibility to solve congestion is not taken into account.

## Inclusive approach to clean flexibility

🟠 neither fulfilled our criteria, nor violated them

The market barriers report recommends informing consumers about flexibility and targeting grants toward flexible technologies and groups at risk of energy poverty – which makes the Czech FNA the only one to consider energy poverty. It suggests using state guarantees or price caps on spot-price tariffs to shield consumers from price spikes. The market barriers report highlights the importance of smart meters and discusses ongoing processes to introduce more dynamic and time-of-use tariffs.

Smart meters are addressed as part of the market barriers analysis. We welcome that they propose reviewing the annual consumption threshold for free smart meter installation and recommend lowering it, with the aim of increasing penetration. However, they do not incorporate this into their modelling in any way, and as mentioned before, the FNA does not model implicit demand-side response.

## Climate-aligned electrification

🔴 strongly misaligned

Heat pumps, EVs, and industrial electrification are not explicitly taken into consideration nor examined in the report, and therefore the analysis does not inspect how climate-aligned electrification will create new clean flexibility needs and opportunities.

## Cross-border coordination

🟠 neither fulfilled our criteria, nor violated them

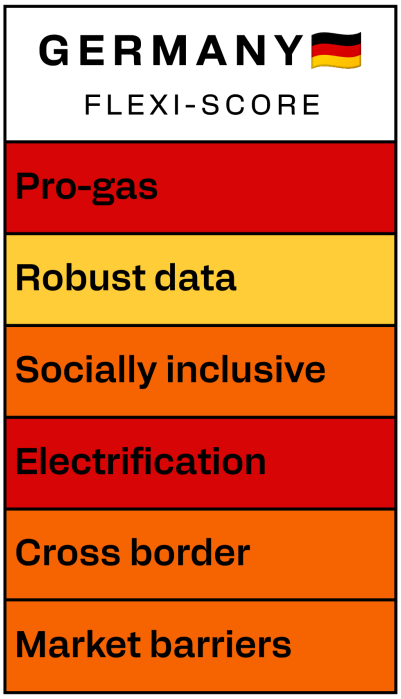
The FNA's model for analysing cross-border flows relies on the ERAA model of the whole European grid, with some modifications related to how ancillary services and flexibility is modelled. The report argues that it is not possible to "rely solely on flexibility from abroad", which while true, suggests the country is hesitant to the efficient sharing of resources. The FNA exercise does not appear to have been written in collaboration with neighbouring countries.

## Analysis of market barriers

🟠 neither fulfilled our criteria, nor violated them

The analysis follows the ACER template closely, and appears to be a fairly simplistic analysis. While the analysis highlights considerable gaps in national legislation and recommends possible measures, it does not suggest specific steps on how these measures should be implemented. We recommend that the Czech energy ministry and regulator take steps to address the identified challenges.

## #9. Germany




**Key points:** Two reports were published in relation to the German FNA: a longer one compiled by the four German TSOs, and the final official report published by the regulator. Germany's FNA concludes that no new regulatory support for clean flexibility is needed, as the country is on track to meet its renewables integration targets without additional flexibility necessary. This conclusion sits uncomfortably alongside the government's push for an expensive capacity market to subsidise around 10 GW of gas plants – partially justified as supporting the integration of renewables. The TSOs rightly note that the FNA methodology does not accurately capture all the system flexibility requirements, however the report does not consider how Germany could displace existing and planned gas plant capacity with more clean flexibility.

**Key recommendations:** We encourage the German TSOs to consider how much gas plant capacity they could replace by instead scaling clean flexibility solutions. The new capacity market should be open to all clean technologies from the start. The government should host a public consultation to identify additional market barriers which are not identified or being addressed which stand in the way of energy storage and demand side response.

### Prioritise clean flex over fossil gas

● strongly misaligned

Recent German energy policy has been marked by the government's push for gas plant subsidies via the power plant strategy (StromVKG), with the European Commission having recently approved plans for the country to procure around 10GW; with clean flexibility effectively excluded from the auctions. This decision was justified at least in part by the 'intermittent' nature of renewables.[27]

[27] See German Federal Government (2026): Security of supply in Germany. https://www.bundesregierung.de/breg-de/service/fragen-und-anworten/stromversorgungssicherheit-2430320

Similar to other FNAs, the analysis does not consider how clean flexibility can reduce dependence on current or planned gas plants. While the TSOs recognise in their report that "the methodology does not accurately capture all flexibility requirements", the report nonetheless concludes that there is "no need to introduce immediate additional measures to address unmet flexibility requirements" since the country can meet its renewables targets. It feels incoherent that no additional clean flexibility support would be needed, at the same time when subsidies for 10GW of gas plants are considered necessary.

## Robust, independent, transparent data

● partially misaligned

The German FNA does not consider the grid-side TSO flexibility requirements, due to the 'tight timeline for completion'. It considers three weather scenarios, but does no other scenario-testing.

The analysis uses data from ERAA 2024, while recognising these figures are outdated. Additional numbers are therefore used in the analysis; but the integrity of these might require scrutiny. For example, the FNA uses the fact that 50GW of batteries have been approved for grid connections to form part of the rationale to say that no more batteries are needed. An assumption of 50 GW without any support policies in place is quite bullish, and the official Market Master Data Register expects a build-out of 10 GW by 2030. Different BESS scenarios should be modelled.

It is also noteworthy that the analysis used to justify new gas plant subsidies via StromVKG was also based on ERAA – but without adding any exogenous battery capacity, and instead assuming that battery build-out would roll back. This approach appears at best inconsistent, and at worst deliberately designed to support political objectives on gas.

The German FNA appears to underplay the potential for clean flexibility to support short-term flexibility requirements. While downwards flexibility needs are identified, it is assumed that these can be met by curtailing renewables – regardless of the actual controllability. Furthermore, this appears to go against the aim of the FNA, which is focused on reducing curtailment levels via deployment of clean flexibility.

## Inclusive approach to clean flexibility

● neither fulfilled our criteria, nor violated them

In the market barriers analysis prepared by the TSOs, a range of issues are identified which might help unlock a more inclusive approach. They underline the low roll-out of

smart meters in Germany as a key barrier for domestic customers, and cite a study from the Federation of German Consumer Organisations (vzbv). The TSO report identifies barriers that prevent the market penetration of home storage systems and charging points. While the regulator recognises these barriers exist, it is suggested that all these challenges are being tackled, and therefore no further actions are needed.

There is no discussion of the deeper changes needed to ensure that everyone can benefit from clean flexibility. For example, the majority of German households are private renters, and cannot currently benefit from flexibility schemes. Innovative supply models in multi-apartment buildings are made very difficult both by regulation and DSOs.

## Climate-aligned electrification

● strongly misaligned

Germany's FNA does not contain any discussion or analysis of the demand side profile of electrification trends, beyond what is contained in ERAA. It is noted that in the future, the dataset would be expanded and updated to include developments relating to data centres.

There is no mention of how electrolysers might impact the demand profile, despite Germany's commitment to run its entire gas fleet from green hydrogen by 2045. Similarly to Portugal, we encourage Germany to consider different scenarios of potential electrolyser demand.

## Cross-border coordination

● partially misaligned

The German FNA appears to contain a fairly comprehensive analysis of Luxembourg, due to being in the same electricity bidding zone. However, other countries are not discussed in the report, nor are opportunities for better collaboration. This is concerning given Germany is interconnected with 11 countries and there is no discussion of important interconnections with Austria, France, Switzerland and Norway. It does not appear that other TSOs beyond Luxembourg have been consulted with.

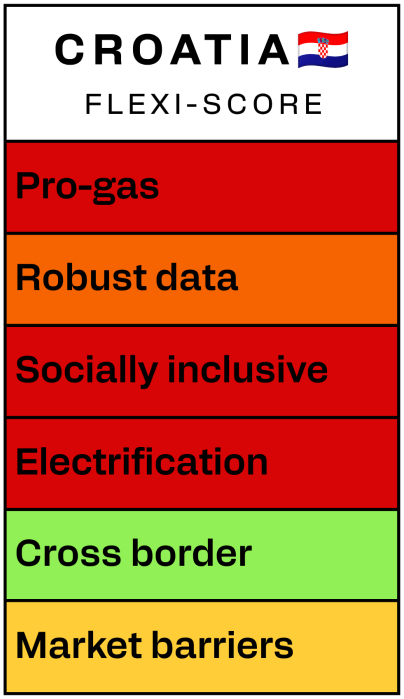
## Analysis of market barriers

● partially misaligned

The TSOs have considered a range of market barriers in their report. We note that the market barriers are mainly focused on demand side response, rather than storage. There is no discussion around the need for more support for more long duration energy storage, despite it being mentioned in the report that this is the form of clean flexibility most needed in the system. There is also no mention of the gas plant auctions as a potential risk to the storage market, despite the fact they are effectively excluded from participating.

In the report compiled by the energy regulator, it is suggested that the barriers which the TSOs have identified are being addressed via a range of regulations, and the most important next step is implementation. While this may be true on some issues, the conclusion seems a simplification of the situation. Some issues are being tackled (smart meter rollout, dynamic pricing, home storage systems), but others – especially regarding underperforming DSOs – are not addressed. This includes long waiting times for connections and poor market access, especially for co-located storage. The TSOs point to aspects of these issues, the energy regulator does not position itself.

## #10. Croatia




**Key points:** The Croatian FNA finds no need to accelerate the deployment of clean flexibility, at a time when the country is deepening its dependency on imported LNG via the US.[28] Using a flawed interpretation of the methodology, the report recommends against having a high renewable, high electrification pathway on the ground of missing renewable integration targets; instead justifying its business as usual pathway.

**Key recommendations:** The Croatian FNA would benefit by fairly considering a high renewable, high electrification pathway, while also evaluating the socio-economic benefits of clean flexibility in reducing use of fossil gas in the power system.

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### Prioritise clean flex over fossil gas

🔴 strongly misaligned

Croatia is currently heavily reliant on gas plants for electricity production. The FNA, which is based on ERAA 2024 data, sees a slight reduction of installed gas turbine capacity between 2030 and 2035 in the Referent Scenario. However a new CCGT has been selected under the Economic Viability Assessment, which prevents the fair assessment of technologies such as batteries and demand-side response to provide flexibility. The analysis does not evaluate the benefits of new clean flexibility in reducing existing or planned gas capacity.

### Robust, independent, transparent data

🟠 partially misaligned

[28] See Euronews (2026): Croatia signs US-backed deal to expand Balkan gas infrastructure amid EU climate concerns. https://www.euronews.com/2026/04/30/croatia-signs-us-backed-deal-to-expand-balkan-gas-infrastructure-amid-eu-climate-concerns

The report uses data from both the ERAA 2024 and the more recent NRAA 2026. The installed battery capacity in both scenarios, 2030 and 2035, is extremely low at 66 MW, assuming no growth in 5 years. Meanwhile, the TSO, HOPS is currently assessing connection requests for 13 battery projects totaling around 854 MW. Preliminary opinions have also been issued for another 392 MW of standalone storage and hybrid projects containing 503 MW of battery connection capacity.[29]

The Croatian FNA analyses two different scenarios: a “Referent” scenario aligned with its NRAA and the NECP, and "Alternative scenario 2” which investigates a higher renewable deployment (in particular solar) and higher electricity demand, possibly reflecting higher levels of electrification. In both scenarios, a target is set to test whether additional flexibility is required to meet the RES integration metric under the methodology. Based on NECP analysis a target of 76.7% RES-based electricity is set. The Referent scenario meets this target without needs for additional flexibility, whereas the Alternative scenario 2 fails to meet the target without additional flexibility.

While the Alternative scenario has a far higher capacity of integrated renewables than the Referent scenario, clearly exceeding Croatia’s overall NECP renewable targets, it fails the test as the high level of electricity demand reduces the renewable share as a percentage of electricity.

Using this analysis, it is argued that the country should stay on the Referent scenario pathway, and not raise ambition. This example shows a deep flaw in methodology on two grounds. First, a scenario with higher renewables deployment should not fail a test on integrating renewables. Second, a scenario that discovers additional flexibility needs should not be dismissed as something negative, but rather the socio-economic benefits of integrating clean flexibility should be analysed.

## Inclusive approach to clean flexibility

● strongly misaligned

While demand-side response has a passing mention in the report, it is unclear how it is taken into account in the analysis. Installed capacities which can be utilised for providing flexibility are not set out in the report. It is not considered how households, in particular more vulnerable ones, could be positioned to benefit from flexibility.

## Climate-aligned electrification

● strongly misaligned

[29] See HGK (2026): Battery energy storage in Croatia – opportunities and challenges. https://hgk.hr/documents/position-paper-baterijski-spremnici69aa82c3728e4.pdf

A specific analysis of heat pumps, EVs and/or industrial electrification is absent from the report. The "alternative" scenario, which models higher electricity demand and renewable deployment, uses a flawed logic to argue that the RES integration target would be missed as there would be a lower overall percentage share of renewable electricity compared to the reference scenario. There is no consideration of what would actually be necessary to support climate-aligned electrification.

## Cross-border coordination

partially aligned

Neighbouring countries in Southeastern Europe, including Albania, Bosnia and Herzegovina, Bulgaria, Greece, Hungary, Kosovo, Montenegro, North Macedonia, Romania, Serbia, and Slovenia are explicitly modelled on a plant-by-plant basis, giving a high level of granularity, while the rest of the EU, UK, Norway, and Turkey are explicitly modelled at the technology-cluster level. Moldova, Georgia, Morocco and Tunisia are implicitly modelled. This level of analysis is more comprehensive than seen with other FNAs.

Analysis could be improved by working with Slovenia and other neighboring countries in the development of the FNA.

## Analysis of market barriers

neither fulfilled our criteria, nor violated them

The market barriers report simply answers the questions set out by ACER with high-level responses. Where a barrier is identified, the report often justifies that future incoming legislation should satisfy this limitation. The report could go further in outlining a roadmap to addressing remaining barriers with relevant actors.

# Annex I: Methodology for our assessments

The ranking of the countries is based on criteria set out in the checklist published by Beyond Fossil Fuels and CAN Europe in February 2026.[30] In addition to the five categories we set out – prioritising clean flexibility over gas; robust, independent and transparent data sources; an inclusive approach to clean flexibility to maximise benefits-sharing; a robust and climate-aligned understanding of electrification profile; and cross-border cooperation – we added a sixth category to specifically analyse the market barriers report. Within each category, we identified a number of criterias, as set out in the table below.

Since the reports were very different in style, substance and form; rather than assigning a numerical score for each category, we used a traffic light system to score the countries. The closer a country got to achieving the 'best practices' we set out in the check-list, the better the score was, with dark green representing strong alignment; and light green representing partial alignment. Where a country was strongly misaligned with our best practices, we ranked them with a dark red, and where a country was partially misaligned, light red. Amber was used when a country neither fulfilled our criteria, nor violated them.

The rankings were considered in a comparative manner against other countries, and were informed by dialogue with national partners from civil society and industry.

| **Category** | **Criteria** | **Notes** |
|---|---|---|
| Prioritise clean flexibility over fossil gas | Does the assessment consider how clean flexibility can reduce use and dependence on fossil gas plants? | We considered if reports recognise limitations of the FNA methodology's narrow scope, identifying additional potential roles for clean flexibility |
| | Has the assessment been done in a way which maximises gas use before considering the role of clean flexibility? | Modelling approaches which put gas plants first in the dispatch order could dampen clean flexibility ambitions |
| | Does the country have gas-bias energy market mechanisms (such as capacity markets) and if so, are steps being taken to address this? | We considered whether policies like capacity markets are currently favouring gas over clean flexibility, and whether any changes are being made to address this |
| Robust, independent data | Are the data inputs comprehensive, up-to-date and transparent, with public consultation? | We considered if countries used additional data inputs to complement ERAA data, whether these were in line with on-the-ground market trends, and whether stakeholders were consulted |

[30] See Beyond Fossil Fuels and CAN Europe (2026): Clean Flexibility Checklist. https://beyondfossilfuels.org/wp-content/uploads/2026/02/Briefing_Clean_Flexibility_Checklist.pdf

| | | |
|---|---|---|
| | Are both TSO and DSO needs considered? | In the case that neither or only one grid level is considered, we are concerned that certain flexibility needs are overlooked. A number of FNAs did not examine TSO needs. |
| | Is the 2035 scenario based on having a higher overall renewable energy target than 2030? | In the case they are not, or are not sufficiently ambitious, there is a risk that flexibility needs might not be suitably ambitious |
| Socially inclusive approach | Are energy tariffs considered to incentivise households and businesses to use their energy flexibly? | We considered whether countries are considering key, underlying steps needed to ensure everyone can participate in flexibility markets such as flexible energy tariffs |
| | Socially inclusive approach to smart electrification | We considered if reports consider measures to ensure energy poor/ lower income households can also share in the benefits of clean flexibility to share the benefits |
| Climate-aligned electrification | Does the analysis consider the electrification of key sectors like heating, industry, transport? | We considered whether the analysis had considered the decarbonisation of key sectors, and how this might impact the flexibility profile of the energy system. |
| | Does the report consider the risks associated with overstating potential electricity growth (i.e. data centres, hydrogen) | The future electricity use of certain energy-hungry sectors will have a profound impact on the future energy system, including the flexibility profile. We assessed whether reports considered this, particularly in key countries experiencing this trend. |
| Cross-border coordination | Has an optimisation of cross-border flexibility opportunities been considered? | We considered whether the report included modelling of the flexibility opportunities with neighbouring countries, and how these could be optimised |
| | Was there regional collaboration in writing the report? | We considered if the reports mention coordination with neighbouring TSOs and NRAs |
| Market barriers analysis | Comprehensive analysis of market barriers to different clean flexibility, including consideration of how to support an inclusive approach | We considered if the countries have set out a comprehensive analysis of market barriers faced by energy storage and demand side flexibility; or whether it was high-level. If the FNAs claimed there are no major barriers, we consulted with national partners to see if they agreed. |
| | Indication of steps to be taken to address market barriers | We considered if the reports provided a timeline and concrete measures to address identified market barriers. |

## Annex II: Access to the national Flexibility Needs Assessment reports

Please note these links were correct at time of publication (26/11/2026). You can access our machine translated English translations on request – please contact Juliet.Phillips@bff.earth. Throughout the report, we have quoted parts from the FNAs using the English translations, and recognise that there may be nuances that vary from the original.

| Country | URL address for the report |
|---|---|
| Belgium | https://www.elia.be/en/public-consultation/20260724_public-consultation-fna-report |
| Croatia | https://www.hera.hr/hr/docs/2026/Izvjesce_2026-07-24.pdf |
| Cyprus | https://www.cera.org.cy/Templates/00001/data/raek/Meletes%20RAEK/ekthesi03-2026.pdf |
| Czech Republic | https://eru.gov.cz/hodnoceni-flexibility-elektrizacni-soustavy-cr-v-souladu-s-cl-19e-narizeni-2019943-o-vnitrnim-trhu |
| Denmark | https://www.ft.dk/samling/20252/almdel/KEF/bilag/73/3159040.pdf |
| Estonia | https://www.konkurentsiamet.ee/sites/default/files/documents/2026-10/Eesti%20paindlikkusvajaduste%20hindamise%20aruanne.pdf |
| Finland | https://energiavirasto.fi/-/kuuleminen-kansallisesta-joustontarpeen-arvioinnista-fna- |
| Germany | https://www.bundesnetzagentur.de/DE/Fachthemen/ElektrizitaetundGas/VerteilerNetz/Flexibilitaet/start.html |
| Hungary | https://www.mekh.hu/a-mekh-jovahagyta-az-elso-nemzeti-rugalmassagi-jelentest- |
| Ireland | https://cruie-live-96ca64acab2247eca8a850a7e54b-5b34f62.divio-media.com/documents/2026-08-24_-FNA_Publication_Version.pdf |
| Italy | https://www.terna.it/en/electric-system/dispatching/flexibility |
| Latvia | https://www.sprk.gov.lv/files/sprk-s3/s3fs-public/media_file/fna_final_report_0.pdf |
| Lithuania | https://www.litgrid.eu/uploads/files/dir839/dir41/dir2/12_0.php |
| Luxembourg | https://www.ilr.lu/publications/flexibility-needs-assessment-luxembourg-2026/ |
| Netherlands | https://www.acm.nl/nl/publicaties/flexibility-needs-assessment-dutch-electricity-system-2026 |
| Poland | https://www.pse.pl/-/sprawozdanie-na-temat-szacowanych-potrzeb-w-zakresie-elastycznosci?safeargs=696e6865726974526564697265637 43d74727565 |
| Portugal | https://www.erse.pt/media/rlnf4qlb/relat%C3%B3rio-an%C3%A1lise-de-necessidades-de-flexibilidade-em-portugal.pdf |
| Slovakia | https://www.sepsas.sk/engine/wp-content/uploads/2026/08/0004_2026_E-EU-rozhodnutie.pdf |

| Country | URL address for the report |
|---|---|
| Belgium | https://www.elia.be/en/public-consultation/20260724_public-consultation-fna-report |
| Croatia | https://www.hera.hr/hr/docs/2026/Izvjesce_2026-07-24.pdf |
| Slovenia | https://www.agen-rs.si/documents/10926/391519/2026_07_24_FlexibilityNeedsAssessmentReportSlovenia.pdf/f489656b-ee90-441a-ba05-e2dfac164861 |
| Sweden | https://www.svk.se/4a539f/siteassets/om-oss/rapporter/2026/fna2026_slutrapport.pdf |

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The data used in this report is provided on an 'as is' basis and was assembled using the best available data at the time of publication. While every effort has been made to ensure the accuracy of the information disclosed in this report, we do not accept any legal liability for errors.



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