



Redefining the European Union's Energy Security

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A Framework for Adequacy, Stability, Flexibility,
Infrastructure Resilience, and Hybrid Threat Readiness

Executive Summary

Once again, Europe is facing energy security stress. Oil and gas import disruption risks are immediate, and emergency import-side and fuel-security measures are being discussed by many European countries.

This paper does not assess emergency oil and gas supply policy. Its focus is different: **structural energy security** – with a focus on the electricity system.

The current energy crisis shall spur a new wave of political efforts in transitioning towards a domestic, clean energy-based, and flexibility-enabled energy system. This is necessary, but not sufficient. Unless EU and national legislation also reform how energy security is defined, assessed, and procured in the electricity sector, the Union will continue to rely disproportionately on fossil capacity.

In the context of the European Commission's efforts to revise its energy security framework and the energy crisis sparked by the Iran war, this paper sets out a structure to identify electricity-sector security gaps and proposes targeted regulatory reforms to address them.

This paper argues that energy security must rest on five pillars:

Adequacy (security of supply) – **Stability** (system security) – **Flexibility** – **Infrastructure Resilience**
(physical) – **Hybrid Threat Readiness** (cyber)

EU law already contains (at least partial) legal bases for all five pillars. The problem is not the absence of EU legislation; rather, many existing instruments were designed around legacy thermal-system assumptions. As a result, current frameworks often reproduce structural dependence on fossil capacity instead of reducing it.

The priority is therefore targeted reform: to update how energy security is defined, assessed and operationalised in EU and national electricity framework.

Focus: The Questions This Paper Aims to Answer

- How should energy security be defined?
- Which EU legislative instruments currently address adequacy, stability, flexibility, infrastructure resilience and hybrid threats?
- What structural limitations exist in the current framework?
- How should the EU energy security framework be revised?

Context: The Risk of Energy Insecurity

An energy system tackling electrification, renewable variability, decentralisation, digitalisation is exposed to many risks. Failure to tackle these risks has significant consequences.

Insufficient (cost-effective) dispatchable capacity. In the absence of a proper adequacy assessment, there is either insufficient dispatchable capacity; or sufficient capacity but overreliance on expensive, imported fossil fuels.

Increasing system instability. Without clear understanding of stability needs and appropriate (market-based) procurement, blackout risk increases in high-renewable systems.

Operational inflexibility. Without a proper focus on flexibility, Europe sees prohibitively costly curtailment, excessive price volatility.

Fragmented crisis response. Incomplete resilience planning leads to inefficient and reactive crisis management.

Increased exposure to hybrid threats. Cyber-attacks propagate when appropriate measures are not in place.

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1. Redefining Energy Security in the European Union

1.1 A Security Taxonomy

Once again, Europe is facing energy security stress. Oil and gas import disruption risks are immediate, and emergency import-side and fuel-security measures are being discussed by many European countries.

This paper does not assess emergency oil/gas supply policy and related efforts – a resilience buffer. Its focus is narrower: the resilience of the European electricity system itself, and the extent to which current market design and regulatory frameworks continue to leave the power sector exposed to structural reliance on imported fossil fuels.

The current energy crisis shall spur a new wave of political efforts in transitioning towards a low-carbon, EU-based energy system. This is necessary, but not sufficient. The way the European Union and national legislation address and understand energy security in the electricity system must also change: it currently leads to over-reliance on fossil fuels.

This paper therefore uses a five-pillar taxonomy of electricity-sector energy security. The purpose of this taxonomy is operational. It is designed to identify where current frameworks systematically overvalue fossil fuels (imports) and underestimate clean, domestic solutions.

In a decarbonised and electrified system, energy security must be defined as:

The ability of the energy system to continuously deliver adequate, stable, flexible energy under normal and stressed conditions, while remaining resilient against physical and cyber disruptions.

This definition reflects the fact that modern electricity systems face risks that extend beyond traditional resource adequacy. As a result, energy security in the European Union increasingly rests on five complementary dimensions.

1.2 Five Core Questions of Energy Security

These dimensions can be understood through five fundamental questions that any secure electricity system must be able to answer.

1. Adequacy – **Do we have enough electricity resources to meet demand?**
2. Stability – **Will the power system remain physically stable after a disturbance?**
3. Flexibility – **Can the system efficiently manage variability in renewables' generation?**
4. Infrastructure resilience – **If infrastructure fails, can the system continue to operate and recover?**
5. Hybrid threat readiness – **Is the energy system resistant to hostile cyber acts?**

In other words, there are five pillars that support energy security in a decarbonised and electrified system:

	Adequacy	Stability	Flexibility	Infrastructure Resilience	Hybrid Threat Readiness
Main question	<i>Do we have enough electricity resources to meet demand?</i>	<i>Will the power system remain physically stable after a disturbance?</i>	<i>Can the system efficiently manage variability in renewable generation?</i>	<i>If infrastructure fails, can the system continue operating and recover?</i>	<i>Is the energy system resistant to hostile cyber acts?</i>

Policy focus	Resource adequacy modelling; capacity mechanisms and strategic reserves	System services; operational security rules	Renewable integration; congestion management	Grid strengthening; interconnection; climate adaptation	Cybersecurity; supply security
Key risk addressed	Electricity scarcity; insufficient generation	Frequency collapse; loss of synchronism; system failure	Operational inflexibility, excessive curtailment, price volatility	Transmission outages; infrastructure damage	Cyberattacks, sabotage or coercion

These dimensions highlight that electricity security is a layered architecture of interdependent security requirements. Another way to understand these pillars is through the time scales at which security risks materialise - ranging from milliseconds for frequency stability to strategic time horizons for hybrid threats.

The next chapter will assess whether these questions are sufficiently answered by current EU legislation.

2. Which EU Legislative Instruments Currently Address Energy Security?

European energy security policy is governed through a broad set of legislative instruments addressing different aspects of the energy system.

This chapter reviews how existing EU legislation addresses the five core dimensions of electricity system security identified in Chapter 1: adequacy, system stability, flexibility, infrastructure resilience and hybrid threat readiness.

2.1 Adequacy

Primary legal basis

[Regulation \(EU\) 2019/943](#) (Electricity market), [Regulation \(EU\) 2019/941](#) (Risk preparedness), [Regulation \(EU\) 2017/1938](#) (Gas Security of Supply).

Secondary / implementing instruments

The [European Resource Adequacy Assessment](#) (ERAA); National Resource Adequacy Assessments (NRAAs); national/regional electricity crisis plans; [Clean Industrial Deal State Aid Framework](#) (CISAF).

Governance actor

- ENTSO-E: conducts modelling.
- ACER: approves methodology.
- Member States: implement and develop capacity markets.
- European Commission: approves capacity markets.

What is actually assessed

The Electricity Regulation establishes the European Resource Adequacy Assessment (ERAA) under Article 23, which provides a probabilistic and cross-border assessment of electricity resource adequacy across the European power system. The ERAA evaluates the ability of generation, storage, and interconnection capacity to meet demand under a range of future scenarios.

This framework reflects the historical focus of energy security policy on ensuring sufficient supply capacity and avoiding electricity shortages.

What is actually enforceable if a gap is found

Member States may introduce market-wide Capacity Remuneration Mechanisms (CRMs) or Strategic Reserves under Articles 20–26 of the Electricity Regulation. Provisions related to these two instruments are present and strongly regulated in the Clean Industrial Deal State Aid Framework (CISAF). These mechanisms need European Commission approval under EU state aid rules.

Does the EU assess adequacy needs?	Are there tools to ensure the needs are met?
Yes, through ERAA	Yes, capacity markets and strategic reserves

2.2 System Stability

Primary EU legal basis

[Regulation \(EU\) 2017/1485](#) (SOG), [Regulation \(EU\) 2017/2195](#) (EGBL), [Network Code on Requirements for Generators](#) (RfG).

Secondary / implementing instruments

Balancing Platforms (e.g. [MARI](#), [PICASSO](#), [TERRE](#)), other relevant Network Codes, implementation frameworks.

Governance actor

- TSOs: central operational actors.
- ENTSO-E: develops methodologies, operational coordination, technical frameworks.
- NRAs: approve national service frameworks and cost recovery arrangements.
- ACER: oversight, recommendations, methodology approval.
- European Commission: sets the legal framework via Network Codes and guidelines.

What is actually assessed

Assessment of stability is fragmented. Stability is primarily treated only as an operational engineering responsibility, instead of also as a harmonised EU pillar with explicit assessment and procurement obligations. Technical parameters discussed in EU legislation include frequency response (inertia, FCR, aFRR), voltage control (reactive power), fault behaviour, and system restoration capabilities (black start).

What is actually enforceable if a gap is found

TSOs are mandated to ensure stability, and are expected to do so in a market-based manner. This is mostly true for frequency services: they are defined and standardised in EU legislation, and coordinated across European balancing platforms to maintain short-term system stability. But for non-frequency services - such as inertia - are not codified in primary EU legislation. Generally speaking, legacy procedures still dominate: services are usually mandatory technical capabilities rather than market services, i.e. they must be provided with no remuneration.

Does the EU assess stability needs?	Are there tools to ensure the needs are met?
No, it's Member States' responsibility to do so.	Stability is an operational responsibility: left to regulated entities who either procure services or mandate responsibilities.

Stability Component	What it does	Typical Services / Mechanisms
Inertia and Frequency Response	Limits frequency deviation immediately after a disturbance	Inertia
		Fast Frequency Response
		Frequency Containment Reserve (FCR)
Frequency Restoration	Restores balance between supply and demand after initial shock	Automatic Frequency Restoration Reserve (aFRR)
		Manual Frequency Restoration Reserve (mFRR)
		Replacement Reserves (RR)
Voltage Control	Maintains voltage levels across the grid	Reactive power
		Voltage control

		Automatic voltage regulation
Fault Behaviour	Ensures faults are detected and cleared safely	Fast reactive current injection
		Post-fault power ramping
System Restoration	Restores the grid after a partial or total blackout by re-energising network sections and restarting generation	Black start

2.3 Flexibility

Primary EU legal basis

[Directive \(EU\) 2019/944](#) (Electricity market).

Secondary / implementing instruments

Member States' Flexibility Needs Assessments (FNA); [Commission Regulation \(EU\) 2015/1222](#) (Guideline on Capacity Allocation and Congestion Management – CACM).

Governance actor

- European Commission: legislative framework and monitoring.
- ACER: approves the FNA methodology; produces EU-level synthesis and recommendations.
- TSOs and DSOs: jointly central in FNA preparation.
- Member States: set indicative national non-fossil flexibility targets and design follow-up measures.
- NRAs: supervise national implementation and approve system-operator-prepared FNA reports.
- ENTSO-E / EU DSO Entity: relevant for methodology/data interfaces and practical implementation.

What is actually assessed

Member States' Flexibility Needs Assessments (FNA) evaluate every two years the "flexibility gap" (the difference between available and needed ramping/shifting capability). In other words, it evaluates whether electricity systems possess sufficient operational flexibility to manage variability in renewable generation and demand, while maintaining efficient system operation. *The first national reports on flexibility needs are expected in July 2026.*

While flexibility for congestion management is mentioned in EU law and deemed relevant, existing legislation does not mandate its assessment – at least in a harmonised manner.

What is actually enforceable if a gap is found

Member States *may* apply "non-fossil flexibility support schemes" (e.g., storage tenders) to achieve indicative national objectives for non-fossil flexibility.

Focusing on one specific flexibility dimension - congestion management - responsibility continues to rest primarily with national TSOs. TSOs appear to be pushing for more control over dispatch to ensure system's reliability by a. restricting how market participants can operate or b. expanding Flexible Connection Agreements (FCAs). The alternative - introducing locational signals, e.g. Local Flexibility Markets, to actively engage in congestion management - is rarely considered by Member States.

Does the EU assess flexibility needs?	Are there tools to ensure the needs are met?
Yes, through FNA (Member State-level)	Partially. On flexibility: - non-fossil support schemes.

	On congestion management: - trade limitations (not locational signals).
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2.4 Infrastructure Resilience

Primary EU legal basis

[Regulation \(EU\) 2022/869](#) (TEN-E), [Directive \(EU\) 2022/2557](#) (Critical Entities Resilience).

Secondary / implementing instruments

The [Ten-Year Network Development Plan](#) (TYNDP) and the [Connecting Europe Facility](#) (CEF).

Governance actor

- ENTSO-E (and ENTSO-G): conduct planning.
- European Commission: undertakes PCI selection.
- ACER: provides opinions and monitors.
- Member States: critical entity identification under CER; national infrastructure planning; permitting.
- National competent authorities under CER: supervision and enforcement.
- TSOs: network planning, project development, resilience-related operational choices.
- DSOs: increasingly relevant but still underrepresented in some EU planning processes.

What is actually assessed

The TEN-E Regulation assesses the need to develop trans-European energy infrastructure, including cross-border electricity interconnections and grid reinforcement projects identified as Projects of Common Interest (PCIs).

In parallel, the Ten-Year Network Development Plan (TYNDP) developed by ENTSO-E provides a forward-looking assessment of infrastructure investment needs across the European electricity system.

Physical resilience of critical infrastructure is addressed through the Critical Entities Resilience (CER) Directive (EU) 2022/2557, which requires Member States to identify critical entities and ensure appropriate risk management and resilience measures.

What is actually enforceable if a gap is found

Projects granted "Project of Common Interest" (PCI) status receive accelerated permitting and eligibility for EU grant funding. The Connecting Europe Facility programme for Energy (CEF Energy) plays a key role in this by funding critical cross-border energy infrastructure.

Does the EU assess infrastructure needs?	Are there tools to ensure the needs are met?
Yes, through TYNDP (network development)	Yes, TEN-E (cross-border energy infrastructure), Projects of Common and Mutual Interest (PCIs and PMIs), and Connecting Europe Facility funding.

2.5 Hybrid Threat Readiness

Primary EU legal basis

[Directive \(EU\) 2022/2555](#) (Network Information Security) and [Directive \(EU\) 2022/2557](#) (Critical Entities Resilience), [Network Code on Cybersecurity](#).

Secondary / implementing instruments

[Cybersecurity Act 2.0](#), [Cyber Resilience Act](#).

Governance actor

- European Commission: legislative framework and coordination.
- National “Competent Authorities”: enforcement.

What is actually assessed

Minimum cybersecurity hygiene, risk management for "essential entities," minimum cybersecurity requirements for digital products, and supply chain transparency and risk assessment.

What is actually enforceable if a gap is found

Binding instructions to entities, administrative fines for non-compliance, mandatory security audits.

Does the EU assess hybrid threats?	Are there tools to ensure the needs are met?
Partially. The regulatory framework is not yet fully defined, as key legislation is not in force yet (e.g. CRA, CSA). Standardisation and secondary legislation are not present.	Partially. On critical entities: - NIS-2 and CER currently in implementation (not harmonised). On product and supply chain: - Legislation and standards are not yet fully adopted and defined. No clear guidance yet on cybersecurity supply chain assessment for investors, owners and operators.

2.6 Conclusion

The review above shows that the European Union has developed a wide range of legislative instruments addressing different aspects of electricity system security.

The next chapter therefore examines the structural limitations of the current framework and identifies potential pathways to strengthen the coherence of the EU’s energy security policy.

3. Limitations of the EU Framework – And How to Solve Them

This chapter identifies the key structural limitations of the current EU framework and outlines potential pathways to strengthen the coherence of energy security policy.

3.1 Adequacy

Limitation

The EU adequacy framework, centred around the European Resource Adequacy Assessment (ERAA), provides a solid probabilistic assessment of whether electricity resources are sufficient.

ERAA has three major shortcomings, as it:

- Underestimates long-duration adequacy by modelling most storage as short-duration resources.
- Insufficiently represents energy storage revenue streams by excluding or simplifying system services revenues and long-term contracts.
- Fails to capture revenues from sub-hourly flexibility.

These limits impact visibility of multi-day adequacy risks and affect Member States' ability to justify appropriate procurement tools, including capacity mechanisms. It can ultimately lead to a high share of gas being procured in the capacity markets.

ERAA is continuously reviewed, with amendments related to ACER's [decision](#) from March 2026 representing a significant step forward, as discussed below.

Recommendations

ERAA is an important and increasingly sophisticated adequacy tool, but it should be further refined to better evaluate renewables-based systems. In particular, ERAA should:

- **Expand the addressed archetypes to include representative flexibility classes of ≥ 8 hours.**
- **Include revenues such as system services in the economic viability assessments.**
- **Increase temporal granularity**, moving from hourly to more granular resolution.

Member States' capacity markets tend to over-procure thermal capacity or set derating and availability requirements that are misaligned with storage operating characteristics where ERAA or national adequacy assessments structurally undervalue flexible resources. Consequently, capacity markets should:

- **Introduce de-rating factors based on power and energy (MW + MWh).**
- **Allow 15–20-year contracts for LDES assets.**
- **Enable locational capacity procurement in grid-constrained zones.**
- **Allow project-specific de-rating bids with performance-based penalties.**

These points have been addressed in the above-mentioned ACER decision on ERAA. How they will be implemented is yet to be fully understood, in a context where ENTSO-E has shown opposition to these recommendations.

3.2 Stability

Limitation

While EU legislation has created well integrated balancing markets across the European electricity system, the underlying physical stability requirements of the grid remain largely governed only through (national) operational frameworks. In other words, EU law harmonises how to balance the system, but not whether the system is physically stable enough to be balanced. As power systems transition towards higher shares of (inverter-based) renewable generation, this may not be enough to ensure system stability and therefore energy security.

Recommendations

- **Accelerate the adoption and publication of the amended Regulation on the Network Code on Requirements for Generators (NC RfG 2.0).**
 - **The European Commission should publish non-binding Implementation Guidance Documents (IGDs) within six months** after the NC RfG 2.0 entry into force by ENTSO-E, aiming to support Member States' implementation.
- **Ensure market-based procurement of stability services** (a.o.: grid forming, voltage support, inertia, black start and restoration).
 - Specifically, **the European Union should develop common minimum requirements on fair tendering procedures** for the future procurement of inertia.
 - **The European Union should define EU common procurement guidelines** to support national TSOs and NRAs to encourage dynamic procurement frameworks that would allow national TSOs and NRAs to procure inertia.
- **The European Union should develop a European common system indicators methodology for the assessment of inertia needs.**
 - This European common system indicators methodology for the assessment of inertia needs should **monitor operational inertia and define a minimum inertia criterion** per Member State, as suggested by [ENTSO-E](#).
 - **ACER should review the results** of the European common system indicators methodology for assessing inertia needs every two years and publish its findings in a recommendation study.

3.3 Flexibility

Limitation

Flexibility has emerged as a central requirement for operating renewable-based energy systems. Resources such as different energy storage technologies allow electricity systems to respond to rapid changes in supply and demand. The Flexibility Needs Assessment (FNA) to be conducted by Member States has important limitations.

- If the FNA depends on results of the European Resource Adequacy Assessment (ERAA) – and not National Resource Adequacy Assessments –, this uses projections of flexibility resources from National Energy and Climate Plans (NECPs). Therefore, the FNA assumes that investments in flexibility discussed in the NECPs will just "happen". In other words, this is a "Chicken and Egg" scenario: policy is needed to trigger investments, but the assessment won't show the need for policy because it assumes the investment is already there.

- When the FNA uses results from the ERAA, it doesn't "talk back" to it. If the FNA finds a need for more capacity, it doesn't re-check if the original economic plan still works. This feedback loop failure means ramping issues or scarcity hours might be missed.

Concerning congestion management: as discussed in Chapter 2, TSOs tend to rely on trade limitations to tackle it (exceptions include France and Netherlands). This leads to dramatic market inefficiencies for both operations and investments. On the former, redispatching actions may reach [up to 100B euros in 2040](#), according to the European Commission's JRC. On the latter, this approach damages business cases of technologies providing flexibility by eliminating grid congestion price signals. This will ultimately lead to less flexibility being deployed, and therefore new renewables won't be able to connect to the grid.

Recommendations

In the context of future FNA, a reviewed methodology should:

- **Provide evidence-based policy links: instead of assuming investments will materialise, the FNA should evaluate whether current policy measures are sufficient to trigger those investments.** It must determine if a non-fossil support scheme is necessary, rather than assuming it isn't.
- **Ensure integrated modeling: establish a dynamic feedback loop between the ERAA and FNA.** If the FNA identifies a technical constraint (like a ramping infeasibility), that data should be fed back into the ERAA to recalculate the economic dispatch and resource adequacy.

Regulatory efforts to cost-effectively tackle security-of-supply-impacting congestion should also be undertaken:

- **The European Commission should further investigate cost-benefit analysis of options such as market-based redispatching and strengthened locational signals** (e.g. in the context of grid connection fees).
- **The European Commission should avoid reopening Electricity Market Design**, but build on the provisions already introduced in recent years.

3.4 Infrastructure Resilience

Limitation

European infrastructure policy, particularly under the Trans-European Networks for Energy (TEN-E) framework and the ENTSO-E Ten-Year Network Development Plan (TYNDP), has played a crucial role in promoting integration and cross-border electricity trade.

Unfortunately, both TEN-E and TYNDP suffer from limitations. The latter's modelling choices prevent optimal system value quantification; and an underestimation of non-convention grid reinforcement due to the lack of a proper cost/benefits comparison of different options. De facto, this leads to networking planning that is not technology neutral and sub-optimal. Moreover, the TYNDP fails to consider overall system stability issues and link them with infrastructure development. This leads to a failure on informing stakeholders on long-term system challenges. These issues may be reinforced by a focus on TSO-dominated elaborations, as limited inputs from other stakeholders, including DSOs, is usually integrated in TYNDPs.

Finally, the TEN-E also tends to focus on traditional grid expansion, overlooking distribution-connected solutions and failing to provide a sufficiently clear regulatory framework for different technologies.

Recommendations

On ENTSO-E Ten-Year Network Development Plan (TYNDP):

- **Refine TYNDP to fully assess non-convention grid reinforcement and compare cost/benefits of different options.**
- **Review TYNDP's approach to ensure discussed technologies are assessed on a level playing field.**
- **Expand TYNDP's to address interplay between infrastructure resilience and stability:**

- **Provide a forecast of the expected system inertia** decrease by 2030, 2040 and 2050, among different synchronous areas and EU Member States.
- **Include all newly commissioned projects delivering stability services**, specifically inertia; to better inform on long-term system challenges and inertia needs.

On TEN-E:

- **Include distribution-connected projects** that provide cross-border value.
- **Improve PCI categorisation**, which de facto bundles in the same category (smart grids/electricity) a wide array of different solutions.

On financing mechanisms for new projects through incentives (e.g. Innovation Fund, Connecting Europe Facility (CEF) Fund):

- **Include dedicated ESS capacity for the supply of inertia.**

Further recommendations on physical resilience of critical infrastructure will be presented in an upcoming positioning by Energy Storage Europe on the topic.

3.5 Hybrid Threats

Limitation

The digitalisation of energy systems has significantly increased the exposure of electricity networks and market platforms to cyber risks, especially hacker attacks and insufficient basic cyber hygiene such as password management.

Hybrid threats are evolving rapidly, and energy systems are becoming increasingly interconnected across digital platforms, cross-border market systems, and real-time operational networks.

A significant number of European Union cybersecurity legislative measures - primary and secondary law, as well as implementing acts - remain under development. As a result, their full impact on the cybersecurity posture of the European energy system cannot yet be fully evaluated.

Recommendations

Recommendations on cybersecurity will be presented in an upcoming paper by Energy Storage Europe on the topic.

4. Conclusion

The transformation of the European energy system is fundamentally reshaping the nature of energy security.

This paper has proposed a system-based taxonomy of energy security built around five complementary dimensions: **adequacy, system stability, flexibility, infrastructure resilience** and hybrid threat readiness. Each of these dimensions addresses distinct risks that can threaten the secure functioning of the European energy system.

This paper shows that the European Union has already developed an extensive body of legislation addressing many of these dimensions. However, several structural challenges remain.

Energy security dimension	Fundamental question	Is the European Union able to provide an answer?
Adequacy	Do we have enough electricity resources to meet demand?	Partially: modelling choices lead to unrealistic outcomes, and ultimately costly and distorting state aid for fossil generation.
Stability	Will the power system remain physically stable after a disturbance?	Partially: efforts to ensure that the system is balanced, not whether the system is stable enough to be balanced in the first place. Service procurement, particularly for non-frequency services e.g. inertia, is left to Member States, often with sub-optimal results.
Flexibility	Can the system efficiently manage variability in renewables' generation?	Partially: it mandates Member States to assess their needs and deploy measures, but the methodology to do so has critical oversimplifications. Congestion management risks being achieved largely through trade limitation: high societal costs, hindering investments.
Infrastructure resilience	If infrastructure fails, can the system continue operating and recover?	Partially: focus remains on traditional grid expansion approaches, overlooking mature technologies and the dimension's intertwined nature with e.g. stability.
Hybrid threat readiness	Is the energy system resistant to hostile cyber acts?	Partially: hard to evaluate, as much of the legislation is yet to be finalised or implemented.

Addressing these challenges does not require creating entirely new legislative frameworks. In the majority of cases, it requires strengthening and updating the instruments.

It is paramount to ensure adequate resources and operational flexibility to maintain system stability, protect infrastructure, and safeguard digital systems against hybrid threats. Developing a more integrated energy security architecture must therefore become essential to ensure that the European energy transition is sustainable, affordable, and secure.

About the Energy Storage Europe:

Energy Storage Europe is the leading member-supported association representing organisations active across the entire energy storage value chain. The Association supports the deployment of energy storage to further the cost-effective transition to a resilient, carbon-neutral, and secure energy system. Together, Energy Storage Europe members have significant expertise across all major storage technologies and applications. This allows us to generate new ideas and policy recommendations that are essential to build a regulatory framework that is supportive of storage.

For more information, please visit www.energystorageeurope.eu

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of Energy Storage