

Empowering customers to be flexible

Nordic Energy Research | Sibelius Hall, Lahti
2025-12-05

Sympower is one of Europe's leading flexibility suppliers



We already work with **200+ commercial** and industrial companies and **10+ balance responsible parties** in the Nordics



Our team of **200+ experts**, combines **pan-European experience with local presence**.



We already optimise over **2.7 GW** of flexible distributed resources across multiple markets. We have been active in flexibility services for more than **10 years**



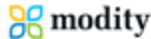
VATTENFALL



Bixia



Mölarenergi



modity



Å
ENERGI



Ishavskraft



VARE



Noovr
Energy Systems



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● Live ● Startup



Estimated industrial flexibility potential in 2030

Sympower sees a great flexibility potential in the Nordics, from various verticals, with examples just from Sweden listed below*



Industrial assets: 2000 MW



District heating and cooling: 2200 MW

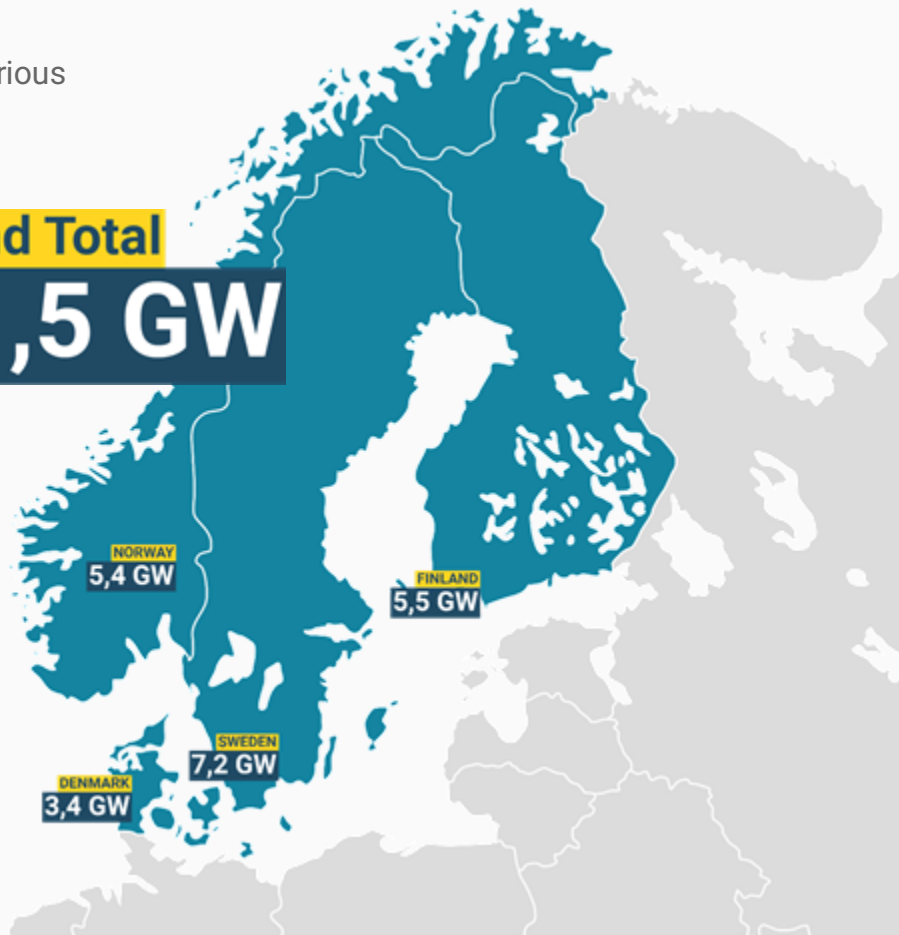


Gas turbines: 2000 MW



Electrical boilers: 1000 MW

Grand Total
21,5 GW

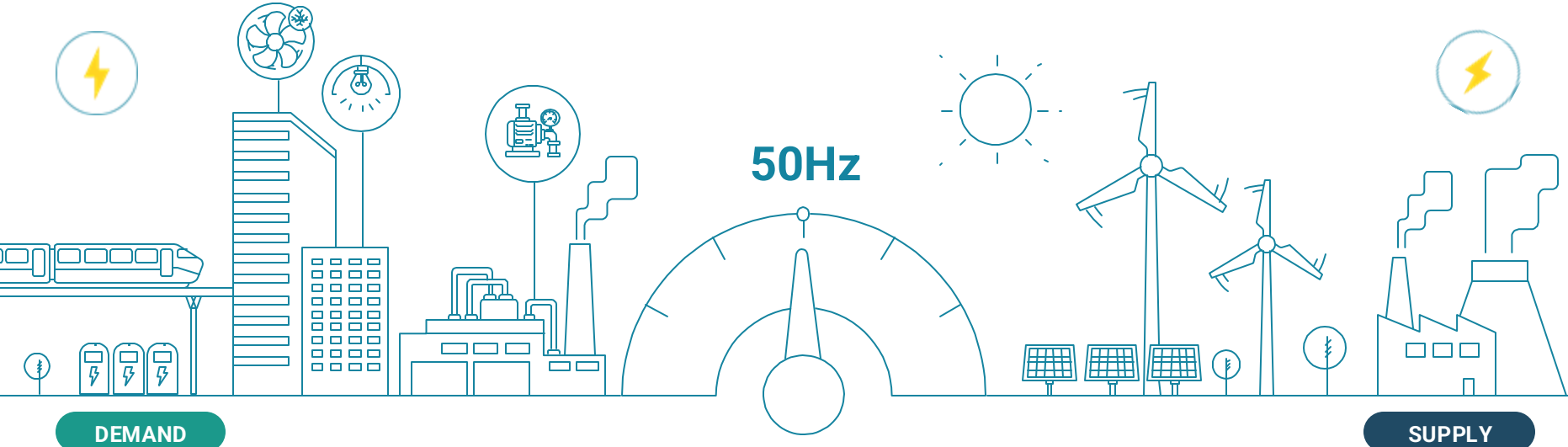


The Energy Transition challenge

Electricity grids are becoming a key bottleneck in the energy transition and realising renewable targets

Electrification creates higher demand peaks

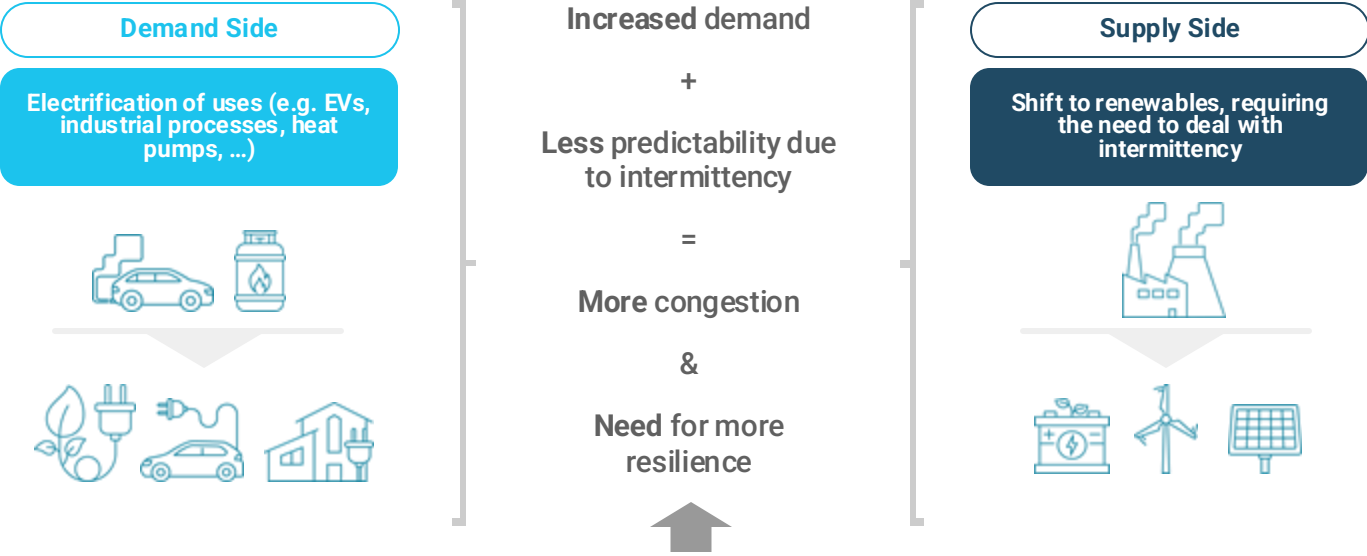
Renewables bring more intermittency in power generation



More fragile balance of electricity grid

Balancing supply and demand: one of the biggest challenges of the energy transition.

Towards 2030 and beyond, we expect this challenge to be even more prominent



This is where distributed flexibility will play a vital role

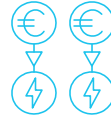
Benefits from flexibility



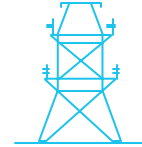
Enables new grid connections



Reduces disruptions in the power grid



Generates new revenue streams for the industries



Increased grid utilization



Adapted to industry conditions



Curbs skyrocketing electricity costs for participating industries



Social benefit



Enables expansion of renewable production

The TSO has several tools to maintain grid balance

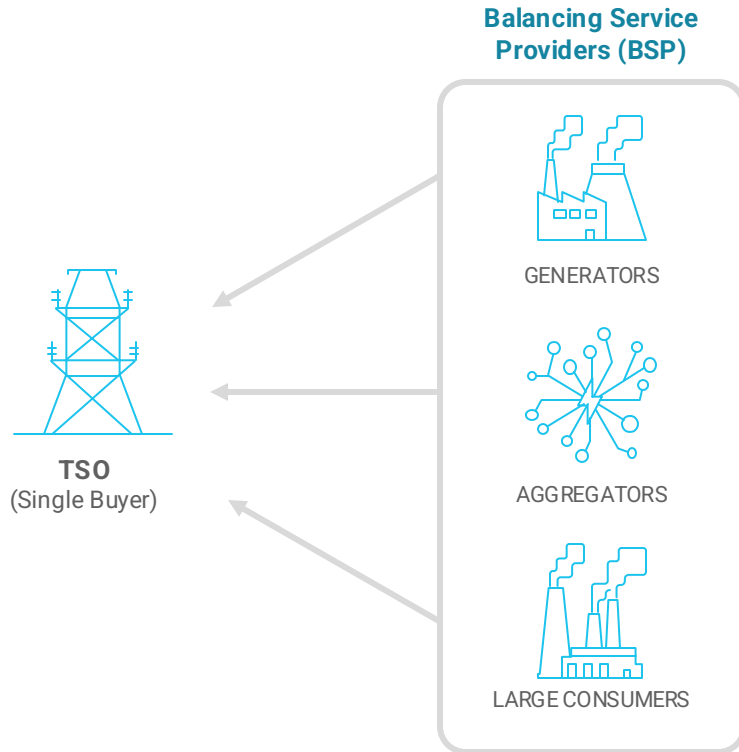
**WHOLESALE
ELECTRICITY
MARKET**

**IMBALANCE
SETTLEMENT
MECHANISM**

**BALANCING
MARKETS**

**CAPACITY
MARKETS**

Balancing markets



What are they:

- Insurance for the TSO.
- Quickly correct unforeseeable imbalances.

Who can participate:

- Balancing Service Providers

How the remuneration works:

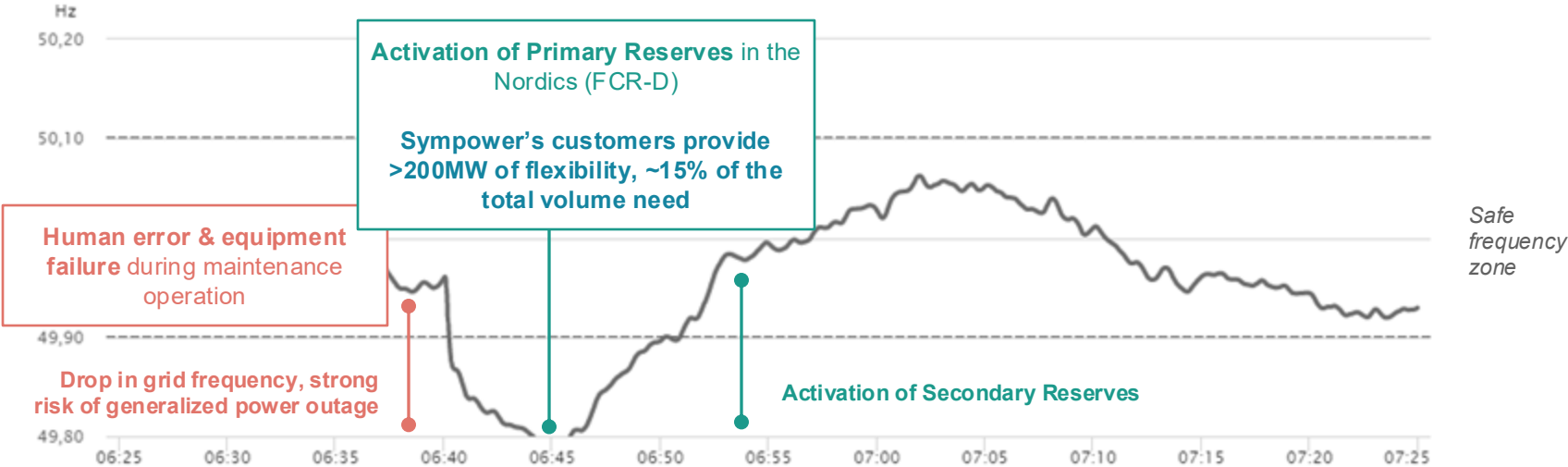
- TSO procures the services with some lead time
- TSO pays the service providers for being available
- In case of activation, TSO also pays for the energy delivered.

Demand response is a key tool for grid operators to ensure continuity of supply

A recent example of how distributed flexibility avoided a major outage in Sweden

Frequency on Swedish Electricity Grid

April 26th 2023, in Hz, 06:25 am to 7:25 am



DSF and BESS are complementary: a successful energy transition requires both.

DSF and BESS have different response times and flexibility characteristics

The two technologies meet different system needs.

Feature	Demand-Side Flexibility (DSF)	Battery Energy Storage Systems (BESS)
Technology	Shifting, increasing or reducing demand	Storing and discharging electricity
Response Time	Depends on user action, can be long	Instantaneous
Duration of Flexibility	Short-term adjustments	Long-term
Grid Contribution	Frequency regulation	Frequency regulation, non-frequency ancillary services
Infrastructure	Low-cost (mainly software and automation)	High-cost (battery storage infrastructure)
Flexibility	Depends on consumer's ability to adjust usage	Flexibility to store and supply energy as needed

Flexibility in action

Boliden Aitik has activated its grinders and electrical boilers to generate revenue and balance the Swedish electricity grid

In collaboration with Vattenfall and Sympower, Boliden has participated in Svenska Kraftnät's reserve markets since May 2023. Throughout the collaboration, more resources have been added and more reserve markets have been entered into.

We all need a stable power grid to function. It feels good to contribute to stabilizing the power grid and supporting its normal operation. We want to do more, which is why we have investigated the flexibility potential of the new equipment we acquired

Johannes Sikström | Section Manager, Control and Analysis, Boliden



INDUSTRY

Mining

COUNTRY



FLEXIBLE ASSETS

Grinder
Electric boilers

FLEXIBLE CAPACITY

20+ MW

ACTIVE MARKET PROGRAMS

FCR-D up
FCR-D down
mFRR up



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Bigro uses its lighting systems to contribute 60+ MW to Finland's support services markets

Bigros Greenhouses has been actively participating in Fingrid's reserve markets since 2017 and is one of Sympower's original customers. The most important thing for Bigro is that participation in the reserve markets does not negatively affect their core processes and production.

"Working with Sympower has been easy and smooth. They always respond quickly and I am happy with their services. The increased revenue is a big plus!"

Börje Ivars | Founder and CEO, Bigro



INDUSTRY

Greenhouse

Country



FLEXIBLE ASSETS

**Lighting
Electrical boilers**

FLEXIBLE CAPACITY

60+ MW

ACTIVE MARKET PROGRAMS

**FFR
FCR-D up/down
mFRR up/down**



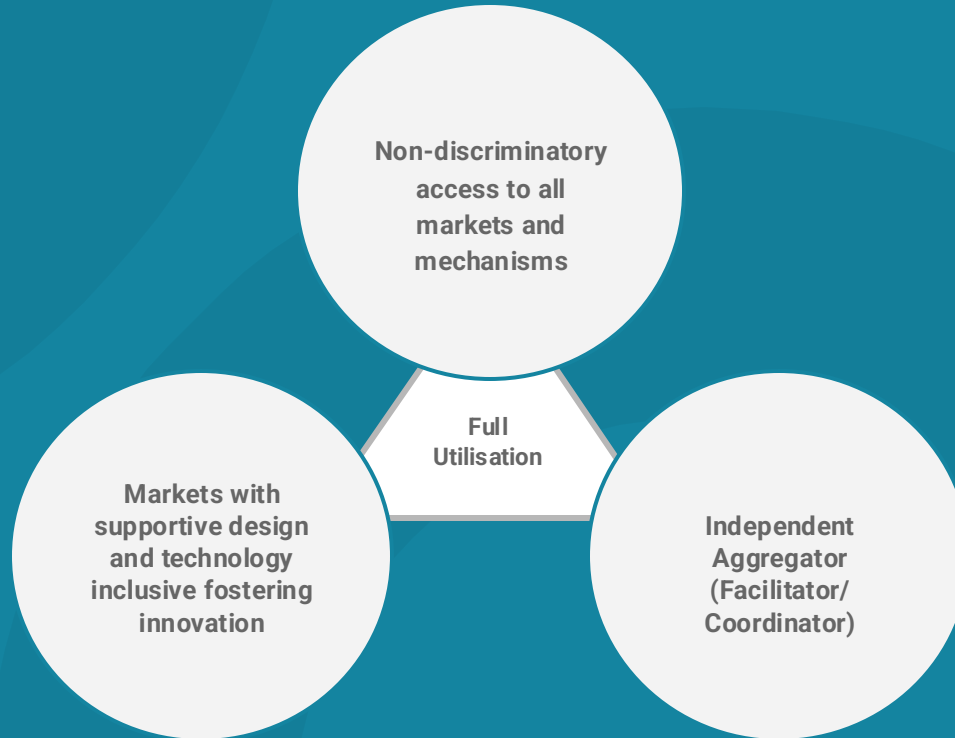
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Building Public Support: Policy, Trust and Engagement





















Independent aggregators are very sensitive to regulations as they evolve in a highly regulated environment



A few elements are needed to realize the full potential of distributed Flexibility



Many discrepancies remain in the Nordics, even despite a more integrated market

Reserve / Country				
Primary		FFR only 		
Secondary			Contractual BSP 	
Tertiary	Contractual BSP 		Contractual BSP 	
Wholesale market				

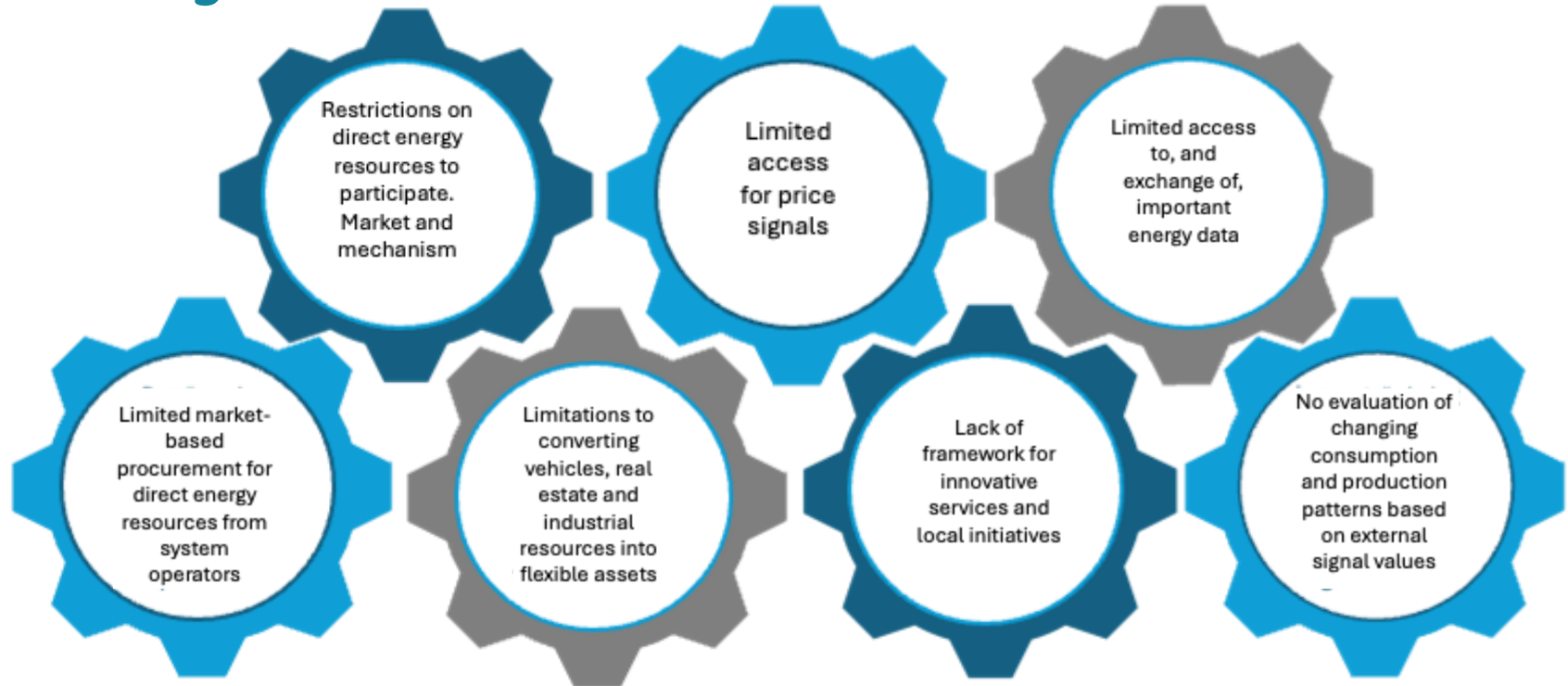
Finland: Tertiary to change late 2026, WM in 2027*

Sweden: No changes foreseen before 2029*

Denmark: Secondary and tertiary to change in 2026*

Independent aggregation:  Allowed  Not allowed

What is limiting further increased utilization of flexibility?



Sympower's Policy Asks - Unlocking flexibility for a sustainable, resilient Grid

Policy Ask	Why It Matters
Equal market access for flexibility providers (BSP, IA)	Ensures fair competition and unlocks innovation in grid balancing.
Incentivize flexibility through capacity markets, capacity payment, dynamic pricing	Encourages investment and rewards grid-supportive behavior.
Cross-border collaboration for shared flexibility resources	Maximizes efficiency and reduces costs across the Nordic region.
Fair compensation for flexibility services	Ensures sustainability for providers and long-term market participation.
Empower consumers to participate in flexibility markets	Builds a bottom-up approach to grid stability and energy transition.
Align with climate Goals by integrating flexibility into energy planning	Accelerates the transition to 100% renewable energy systems.

Call to Action

Let's collaborate to design policies that harness the full potential of flexibility—reducing costs, cutting emissions, and future-proofing the Nordic grid.

Achieving the full potential of flexibility in the various markets, will move the needle and bring us closer to reaching 6 of the UN Sustainable Development Goals.



Thank you!

Questions?



Anders Tonhammar Lööf

Regional Director, Nordics

+46 70 914 38 18

anders.tonhammar.loof@sympower.net