Energy sharing and industrial symbiosis

Memorandum on proposals for regulatory changes to facilitate local energy communities and local energy sharing in Norwegian industrial areas

Subject areas: Circular Kaupanes (Eigerøy) and Circular Husøy (Karmøy)

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1. Summary

Norwegian industrial areas are at a decisive stage in the green transition. Increasing needs for electrification, requirements for emission reductions, the proposed phase-out of fossil energy carriers, and limited grid capacity are creating a growing gap between the energy needs of industry and the available infrastructure. At the same time, both Norwegian and European energy regulations are developing rapidly, creating new opportunities for local energy communities, energy sharing, and industrial symbioses.

The purpose of this memorandum is to identify the regulatory changes necessary to enable energy sharing in practice in Norwegian industrial areas. The memorandum is based on two industrial clusters located in Rogaland: Circular Husøy in Karmøy ("Husøy") and Circular Kaupanes in Eigersund ("Kaupanes"). Both industrial clusters illustrate how the current regulatory framework limits the establishment of shared energy infrastructure, local resource utilisation, and coordinated energy use between businesses.

In recent years, Norway has introduced several important regulatory changes. These include, among other things, a new scheme for energy sharing in commercial and industrial areas, rules for more efficient utilisation of the electricity grid, an increased licensing threshold for solar power installations, and access to pilot and demonstration projects. These are important steps in the right direction, but the experiences from Husøy and Kaupanes show that the current schemes remain too restrictive for energy-intensive industrial clusters.

On this basis, we have identified the following regulatory changes which we believe should be implemented:

• Expansion of the energy sharing scheme: Increase the current power limit from 5 MW to a minimum of 30 MW in defined commercial and industrial areas.

• Collective grid tariffs: Allow collective grid tariffs for industrial parks with shared energy infrastructure.

• Pilot and demonstration projects: Extend the duration of exemptions granted to pilot and demonstration projects so that the testing period for such projects becomes longer.

• Support and incentive schemes: Strengthen support and incentive schemes for shared energy infrastructure, such as heating networks, energy storage, and waste heat recovery.

• EU adaptations: Adapt Norwegian regulations to the EU rules on energy sharing and ensure clear legal recognition of industrial energy communities.

Taken together, these measures will contribute to better utilisation of existing grid capacity, reduce the need for costly grid reinforcements, strengthen industrial competitiveness, and accelerate decarbonisation. At the same time, local energy communities can contribute to increased energy resilience, security of supply, and national preparedness by making critical industry less vulnerable to capacity constraints and external disruptions.

Without a targeted further development of the regulatory framework, energy sharing in Norwegian industry will largely remain limited to small-scale solutions and time-limited pilot projects. The proposed measures should therefore be regarded as an integrated policy instrument in the development of Norwegian energy, industrial, and preparedness policy.

2. Purpose of the Memorandum

The current regulatory framework for energy sharing and local energy infrastructure limits the establishment, as well as the efficient utilisation and operation, of energy communities in Norwegian industrial areas. In order to realise the potential for industrial symbioses and the circular economy, the regulatory framework for energy sharing must be further developed and adapted.

The purpose of this memorandum is to identify the regulatory changes necessary for effective energy sharing in commercial and industrial areas, and to present concrete proposals for regulatory amendments to facilitate this. Access to energy sharing in commercial and industrial areas will make industrial symbioses more efficient and functional. Facilitating local energy solutions and energy sharing may also contribute to relieving pressure on the electricity grid.

The memorandum is based on two industrial symbioses located in Rogaland: Husøy in Karmøy and Kaupanes in Eigersund.

At Husøy, the largest energy users have a combined energy consumption of 180–200 GWh, of which approximately 75 per cent still consists of fossil energy in the form of natural gas and propane. At the same time, approximately 300 GWh of waste heat in the surrounding area is lost annually. Limited grid capacity and the proposed ban on the use of fossil fuels for indirect heating from 2030 make the need for rapid electrification and improved energy sharing particularly urgent.

At Kaupanes, the lack of grid capacity prevents both new industry from establishing itself and existing businesses from expanding, while the area simultaneously has significant potential for local energy production, flexibility, and industrial symbiosis.

Both industrial areas therefore illustrate how the current regulatory framework limits the establishment of shared energy infrastructure, local resource utilisation, and coordinated energy use between businesses within industrial clusters.

A more detailed description of these areas is provided in Section 3 of the memorandum.

3. More About the Industrial Clusters Husøy and Kaupanes

3.1 Circular Husøy

Husøy is an industrial area in Karmøy municipality covering approximately 1 km². The industrial area consists of around 60–80 companies, with a combined workforce of approximately 1,200 employees and an annual turnover of about NOK 18 billion. The companies primarily operate within the marine and maritime sectors. In addition to these businesses, one of the largest cargo ports on the west coast of Norway, Karmsund Port IKS, is located at Husøy. Furthermore, Hydro Aluminium Karmøy is situated 1–2 km south of Husøy in a straight line and is relevant to consider in connection with Husøy.

In 2023, the largest energy users at Husøy established the business network Circular Husøy. The background for this initiative was the recognition of an untapped potential for increased value creation through cooperation between businesses on resources such as energy, water, and by-products and waste materials.

The largest energy users at Husøy have a combined energy consumption of 180–200 GWh/year, of which 75 per cent of the consumption originates from fossil energy, namely natural gas and propane, while 25 per cent originates from electricity consumption. The companies at Husøy and Hydro Aluminium generate a combined surplus heat volume of approximately 300 GWh/year, which is currently cooled down or released into the air and the sea. A strong and structured collaboration could therefore provide increased profitability and improved environmental performance both for the individual businesses and for the area as a whole.

Husøy represents a typical Norwegian industrial cluster with a growing need for electrification, additional grid capacity, and energy efficiency, while several factors limit further development:

• Proposed ban on the use of fossil fuels for indirect heating from 1 January 2030: Husøy has an established underground natural gas pipeline network, which is one of the reasons why several companies originally established themselves in the area. Several of the companies use gas (and at times propane) in several of their production processes (135–150 GWh/year). Such a ban would have major consequences for the industrial area and would create significant pressure for the implementation of improved solutions for electrification and energy sharing at Husøy, preferably before 2030.

• Lack of grid capacity: Limited grid capacity means that companies wishing to expand or establish themselves in the industrial area are often only offered grid connections subject to conditions. Ordinary grid connections require grid upgrades with long lead times and substantial construction contribution costs. Limited access to electricity therefore reduces the opportunities for electrification and increased capacity for existing companies, as well as the necessary grid capacity for new establishments in the area.

• Power cable: A power cable from Spanne in Karmøy municipality is planned with a maximum capacity of 30 MW. However, this capacity is not sufficient to cover Husøy's grid capacity needs, while a construction contribution totalling NOK 3.4 million will impose significant costs on the companies within the industrial cluster.

Ongoing projects at Husøy that require regulatory changes:

• Shared heating plant: Opportunities are being explored to establish a shared heating plant that utilises surplus heat from the companies at Husøy and potentially from Hydro Aluminium Karmøy. The heating plant could potentially utilise up to 300 GWh of surplus heat and supply both high- and low-temperature heat to the companies within the industrial cluster at Husøy.

• FlexLEC – local flexible electricity grid: The companies at Husøy are collaborating to establish a local flexible electricity grid (FlexLEC), where the total grid capacity allocated by the grid operator will be utilised more efficiently through built-in flexibility. Work is currently underway on a business model for this type of electricity sharing.

• Solar power/on-site generation: There is currently some solar power generation at Husøy, but work is underway to expand this production. The intention is to sell electricity through the FlexLEC community.

• Battery storage: A feasibility study regarding battery storage at Husøy is currently underway, where a 5 MW battery could be used to reduce peak loads in the electricity grid when necessary. At other times, the electricity could be sold through FlexLEC or via Euroflex.

• Production of green hydrogen: An ongoing project is also assessing the possibility of integrating hydrogen into the shared energy infrastructure at Husøy.

3.2 Circular Kaupanes

Circular Kaupanes is an industrial area located on Eigerøy in Eigersund municipality and constitutes a central part of the Port of Egersund. Due to its strategic location, with proximity to the E39 highway, railway infrastructure, and direct maritime access to the North Sea, the area is one of Norway's most important port areas for the seafood and maritime industries. The port is also one of the country's largest fishing ports. Industrial activity is primarily dominated by the seafood industry, logistics, and port-related activities, and key actors such as Pelagia and Prima Protein have established operations in the area. The area also hosts activities related to concrete production, hydrogen, and energy-related services.

Like Husøy, Kaupanes has significant opportunities for industrial symbiosis through the sharing of energy and surplus resources, as well as through the coordinated development of shared infrastructure. This applies particularly to the utilisation of surplus heat, local energy production, energy storage, and flexibility in electricity consumption. In order to investigate this potential, the project Circular Kaupanes was established, with the objective of developing an energy hub based on principles of the circular economy and industrial energy communities. The project has been carried out through collaboration between public and private actors, including Eigersund Næring

og Havn, Dalane Energi, industrial companies in the area, and research institutions such as NORCE and University of Stavanger.

Kaupanes represents a typical industrial cluster with a significant need for electrification and further industrial development, but where several factors limit progress:

• Lack of grid capacity: Limited capacity in the local distribution network prevents the establishment of new industrial activities and restricts the growth of existing businesses. This constitutes one of the largest barriers to further development in the area. An application concerning the construction of a new power line to Eigerøy is currently under consideration by the Norwegian Water Resources and Energy Directorate (NVE), which would improve grid capacity. However, lengthy application processes and potentially high construction contribution costs create unpredictability for industrial actors in the area.

• Regulatory barriers to energy sharing: The current energy law framework provides very limited access to the physical sharing of electricity between different legal entities. This makes it difficult to establish grid infrastructure within the industrial area for the physical sharing of generated electricity, as well as to optimise overall energy use across businesses.

• Limited effect of the current energy sharing scheme: The new scheme for virtual sharing of renewable electricity from 2026 represents an important step forward, but the power limit of 5 MW and other restrictions are insufficient for an industrial area with ambitions for increased electrification and growth.

• Untapped flexibility and surplus resources: Analyses demonstrate significant opportunities for improved utilisation of surplus heat, local production, storage, and flexibility, but the current regulatory framework and market structure make such implementation challenging.

4. Geopolitical Context, Security and Preparedness

The industrial clusters at Husøy and Kaupanes fulfil important societal and economic functions within their respective regions. Access to a stable and robust energy supply is essential both for industrial continuity and for national preparedness.

At a time characterised by increasing geopolitical uncertainty and vulnerability in energy systems, there is a need for measures that strengthen energy security, both through grid development and through decentralised and local energy solutions. Energy sharing within local energy communities, such as industrial clusters, can contribute to this by increasing local self-sufficiency, reducing pressure on the electricity grid, and making critical industrial activities less vulnerable to external disruptions.

The development of local energy communities should therefore be regarded as a relevant supplement to traditional grid expansion and as a contribution to Norway’s overall emergency preparedness efforts. At the same time, such solutions support the green transition and promote more efficient utilisation of available energy resources.

5. The Regulatory Landscape in Norway

In recent years, Norway has implemented several important regulatory changes that strengthen the facilitation of local energy production and the more efficient utilisation of the electricity grid. Taken together, these changes provide a better basis for energy sharing in commercial and industrial areas than previously existed.

At the same time, the experiences from Husøy and Kaupanes demonstrate that the current regulatory framework is still not adapted to energy-intensive industrial clusters with a need for energy sharing.

Below, key regulatory barriers to energy sharing within local energy communities are reviewed, together with associated regulatory recommendations that would enable energy sharing in practice.

5.1 Virtual Energy Sharing in Commercial and Industrial Areas

The new scheme for energy sharing in commercial and industrial areas, which entered into force on 1 January 2026, allows for the virtual sharing of renewable electricity within defined commercial and industrial areas. A commercial or industrial area is understood to mean a geographically delimited area where commercial activities are co-located and will typically include business parks and industrial parks.

The total installed capacity of the production facilities participating in the sharing arrangement may not exceed 5 MW within a commercial or industrial area. Benefits for companies participating in the scheme include exemption from electricity tax and reduced grid tariffs.

Practical limitations for Husøy and Kaupanes

Although the new scheme for virtual energy sharing in commercial and industrial areas represents a step in the right direction, our experience from Husøy and Kaupanes is that the scheme is not adapted to energy-intensive industrial clusters.

At both Husøy and Kaupanes, power peaks in the range of 20–50 MW are expected in connection with electrification, process heat, and hydrogen production. The current power limit of a total of 5 MW therefore means that the energy sharing scheme is, in practice, only relevant for small and medium-sized industrial parks, and not for larger commercial and industrial areas such as Husøy and Kaupanes.

Recommendation

We are therefore of the opinion that the current power limit of 5 MW should be increased to at least 30 MW for commercial and industrial areas. A higher power limit would simplify the sharing of surplus energy production within commercial and industrial areas. Such an increase would also facilitate the efficient utilisation of available electricity capacity while at the same time providing the necessary flexibility for future growth and industrial restructuring

5.2 Collective Grid Tariffs

In accordance with the tariff principles set out in the Regulations relating to Network Operations and the Energy Market (NEM Regulations), businesses with separate connection points shall be individually tariffed based on their own power consumption.

The current tariff system therefore provides limited incentives for coordinated power management and shared use of energy within industrial parks. In certain cases, this may result in double grid charges and reduced profitability for shared energy infrastructure.

Practical limitations for Husøy and Kaupanes

• each business pays grid tariffs based on its own power consumption

• the establishment of joint measures to reduce power peaks within the industrial park does not necessarily provide an overall economic benefit

• the establishment of shared energy infrastructure results in double grid tariff charges

Recommendation

We are therefore of the opinion that the regulatory framework should facilitate collective grid tariffs in commercial and industrial areas, where tariffs are calculated based on the park's total net import and export of electricity. This would stimulate coordinated operation and better utilisation of existing grid capacity within industrial areas, in line with the authorities' stated objectives.

5.3 Efficient Utilisation of the Electricity Grid

In September 2025, the Ministry of Energy adopted two amendments to the Regulations relating to Network Operations and the Energy Market (NEM) aimed at achieving more efficient utilisation of the electricity grid. Both regulatory amendments entered into force on 1 January 2026.

Section 3-7 of the NEM Regulations introduced an obligation for grid companies to establish and publish their principles for operational soundness assessments ("DF assessments"). Grid companies are also required to document their assessments in each individual case and provide access to such assessments upon request from the customer. The purpose of the regulatory amendment was to contribute to increased transparency regarding grid companies' operational soundness assessments in the grid connection process.

Furthermore, Section 3-8 of the NEM Regulations granted grid companies the right, in special circumstances, to reduce a customer's maximum permitted power consumption, provided that the customer is notified in writing within a reasonable period prior to the decision regarding such reduction. The purpose of the regulatory amendment was to allow grid companies to free up grid capacity.

Practical limitations for Husøy and Kaupanes

The regulatory amendments are not suitable for addressing the regulatory challenges related to the sharing of electricity between businesses within commercial and industrial areas. There remains a need for solutions specifically aimed at commercial and industrial customers in larger industrial parks, and which facilitate the establishment of shared infrastructure where surplus electricity production can be freely shared between participating businesses.

Recommendation

The regulatory amendments demonstrate that the authorities are willing to intervene in the regulatory framework in order to ensure more efficient utilisation of the electricity grid. It is necessary that the same willingness to act is directed towards the ability of industrial clusters to share energy and coordinate electricity consumption.

For industrial areas such as Husøy and Kaupanes, regulatory amendments enabling flexible sharing of electricity between businesses would provide significant benefits, both for the individual businesses and for the utilisation of the electricity grid as a whole.

5.4 Rules for the Establishment of Production Facilities and Grid Connection Should Be Linked to the Rules on Virtual Energy Sharing

As of 1 January 2026, Section 3-4 a of the Energy Act was amended so that grid companies are now obliged to construct grid facilities up to an appropriate interface point for new production facilities connected to grids with a voltage level up to and including 22 kV. At the same time, the licensing threshold for solar power installations was increased to 10 MW.

The amendment means that a large proportion of grid connections which previously required an installation licence may now be realised under the grid companies' area licences. The regulatory framework has therefore been adapted to facilitate simpler connection of new production facilities to the ordinary electricity grid.

Practical limitations for Husøy and Kaupanes

Although local (solar) production facilities have become somewhat easier to establish as a result of the regulatory amendment, there are still limited opportunities for virtual sharing of electricity between actors within an industrial cluster when the combined installed capacity of the production facilities exceeds 5 MW.

Recommendation

We are therefore of the opinion that the regulatory framework governing the connection of production facilities to the ordinary electricity grid should be linked more clearly to the rules on virtual sharing of electricity. There is limited value in a regulatory framework that facilitates the easier establishment of production facilities if, at the same time, it makes it difficult to share the electricity generated by those facilities.

Such a paradox could easily result in businesses lacking sufficient incentives to co-locate within commercial and industrial areas and instead choosing to establish themselves separately because this is considered more advantageous.

5.5 Microgrids and Energy Communities – Pilot Projects

Industrial clusters may apply to the Norwegian Water Resources and Energy Directorate (NVE) and the Regulatory Authority for Energy (RME) for approval to establish grid infrastructure for the physical sharing of electricity within commercial and industrial areas as a pilot or demonstration project. The establishment of such a shared grid would permit direct physical sharing of electricity between businesses within the industrial cluster.

Businesses wishing to initiate a pilot or demonstration project must apply for a licence from the NVE. If the project includes activities which are not permitted under the current regulatory framework, exemptions may, in special cases, be granted for the duration of the pilot or demonstration project testing period.

Such pilot and demonstration projects are time limited. Permission is normally granted for a period of between one and three years, although permits may in some cases be granted for periods of up to five years. After the expiry of this period, the ordinary regulatory framework will again apply. If the project involves the construction of installations, this may mean that such installations must subsequently be removed.

Practical limitations for Husøy and Kaupanes

The opportunities provided by pilot and demonstration projects generate valuable learning, but they also create a high degree of regulatory uncertainty for major investments. In other words, the current regulatory framework does not provide long-term predictability for industrial clusters that, for example, wish to apply for permission to establish shared infrastructure for the physical sharing of electricity within the industrial park.

Recommendation

It is therefore our view that the scheme for pilot and demonstration projects should be transformed into a long-term arrangement, whereby projects are granted permission for testing phases of up to ten years. This would provide predictable conditions for industrial microgrids and enable solutions to transition from pilot projects to ordinary operation.

5.6 National Support Schemes for Shared Energy Infrastructure

The authorities should establish targeted support schemes and policy instruments for the development of shared energy infrastructure in industrial parks.

Practical limitations for Husøy and Kaupanes

Both Husøy and Kaupanes have significant potential for waste heat recovery, industrial heating networks, and shared energy storage. Although such measures provide considerable societal value, our ability to implement them is currently limited due to high costs.

Recommendation

We therefore believe that the authorities should consider targeted support schemes and policy instruments for the development of shared infrastructure for energy sharing within commercial and industrial areas. Such support schemes and policy instruments would be essential for strengthening investment willingness and improving predictability for commercial actors seeking to establish themselves in areas with constrained grid capacity.

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6. Relevant EU Legislation and Its Implications for Norway

The development of regulations governing energy sharing in Norway must be viewed in the context of the EU reform of the electricity market design framework. Central parts of this reform have been assessed as EEA-relevant and may have implications for Norwegian regulation of energy sharing and energy communities.

The right to energy sharing forms part of a broader reform aimed at:

• stabilising electricity prices

• reducing dependence on fossil fuels

• intensifying investments in renewable energy

• strengthening consumer protection

• increasing system flexibility

In this context, energy sharing is not regarded as a limited pilot phenomenon, but rather as a tool for making the energy system more robust, flexible, and resilient.

For Norway, this supports a development in which local energy communities assume a more integrated role within the power system.

6.1 Directive (EU) 2024/1711 – Right to Energy Sharing

A key element is Directive (EU) 2024/1711 (the revised Electricity Market Directive), adopted on 13 June 2024, amending Directive (EU) 2018/2001 (the Renewable Energy Directive) and Directive (EU) 2019/944 on common rules for the internal market for electricity (the Electricity Market Directive). Among other things, the Directive introduces a new Article 15a in the Electricity Market Directive concerning the right to energy sharing and sets a deadline of 17

January 2025 for implementation of the Directive in the EU Member States. The Directive has been assessed as EEA-relevant but has not yet been incorporated into the EEA Agreement.

The Directive requires, among other things, that:

• EU Member States ensure that all households, small and medium-sized enterprises, and public bodies have the right to participate in energy sharing as active customers within the same bidding zone or a geographically limited area by 17 July 2026. Member States may also decide to include other categories of final customers, including industrial customers.

• clear registration procedures and transparent metering and settlement systems are established, and

• local flexibility markets and local energy communities/energy sharing arrangements are facilitated.

Implications for Norway

Although Norway has already introduced a virtual sharing scheme for commercial and industrial areas, the scheme is limited in both scope and effect and does not currently provide a general right to virtual energy sharing on a large industrial scale. The experiences from Husøy and Kaupanes demonstrate that the limited scale of the current scheme constitutes a barrier to the practical implementation of energy sharing.

Recommendation

Norway should prepare for the further development of its energy sharing regulations in accordance with the principles of the Directive, so that industrial energy communities receive clear legal recognition and predictable frameworks for metering and settlement.

6.2 New EU Rules for DSOs (Regulation (EU) 2024/1747 and Directive (EU) 2024/1711)

As part of the same reform package, new guidelines are also being introduced for the regulation of distribution system operators (DSOs), including requirements that tariffs and grid planning should, to a greater extent, stimulate efficient grid utilisation, flexibility, and local resource utilisation through forward-looking investments.

Certain of these principles correspond with Norwegian grid regulation, but the EU framework nevertheless represents a significant strengthening of the regulatory framework governing grid companies within the EU.

Implications for Norway

For Norway, this means that the European regulatory framework is increasingly expected to support local coordination, flexibility, and cooperation between actors engaged in energy sharing and local energy communities.

Recommendation

Norway should use these developments as inspiration for the further development of tariff and regulatory models that actively support energy sharing and coordinated operation within industrial parks, rather than focusing solely on individual solutions. A proactive approach would reduce regulatory uncertainty and strengthen investment predictability.

6.3 Adaptation of Norwegian Regulations to the EU Right to Energy Sharing

Both Husøy and Kaupanes illustrate that industrial actors require a clear legal framework governing energy sharing, metering, and settlement. Early adaptation would reduce the risk of future regulatory disputes if and when the EU Directive is incorporated into the EEA Agreement.

Recommendation

Norway should adapt its regulatory framework to the EU requirements concerning the right to energy sharing by:

• ensuring that industrial actors are included on equal terms

• establishing transparent registration and settlement frameworks

• establishing mandatory registration procedures

This would be consistent with the European electricity market design framework while simultaneously supporting the development of industrial energy communities in Norway.

7. System Considerations and Regulatory Risks

The recommended changes set out in this memorandum will have implications beyond the specific industrial clusters described herein. Expanded schemes for energy sharing within industrial clusters, collective grid tariffs, and long-term pilot and demonstration projects for industrial energy communities may affect cost allocation, market dynamics, and the general framework conditions of the power system.

For example:

• exemptions from certain taxes and tariffs may affect the distribution of costs between different grid customers;

• new forms of cooperation may raise questions relating to governance, responsibility, and data management; and

• increased local coordination of energy resources may have implications for both grid planning and tariff design over time.

The experiences from Husøy and Kaupanes demonstrate that, without the proposed changes, energy sharing and coordinated energy solutions will only be possible on a very limited scale and will, in practice, not be capable of being implemented in energy-intensive industrial environments where the need is greatest.

This memorandum therefore proceeds on the basis that the identified system considerations should not prevent the necessary regulatory adaptations, but rather must be addressed in parallel with — and as part of — the continued regulatory development. Without such changes, the potential for industrial energy communities, industrial symbioses, and increased energy resilience within Norwegian industry will remain largely unrealised.

8. Final Assessments

The experiences from Circular Husøy and Circular Kaupanes demonstrate that the current regulatory framework does not enable energy sharing and shared energy infrastructure at the scale required. The recommended changes set out in this memorandum directly address the regulatory limitations and would enable energy sharing and coordinated solutions that are currently not feasible in practice.

Implementation of the proposed measures would make it possible to develop industrial local energy communities in Norway integrating:

• renewable energy production

• utilisation of waste heat

• hydrogen production

• energy storage

• thermal networks

• flexibility services

Such systems would reduce pressure on the national electricity grid, lower industrial energy costs, and accelerate industrial decarbonisation. At the same time, further development of the regulatory framework would facilitate large-scale industrial symbioses contributing to:

• better utilisation of existing energy infrastructure

• reduced system costs

• increased industrial competitiveness and value creation

This has implications beyond climate and efficiency considerations alone. By enabling local energy production, shared use of energy resources, and coordinated power management within industrial parks, industrial energy communities may reduce dependence on vulnerable external grid capacity and contribute to increased energy resilience in industrial environments with critical societal functions. This may, in turn, help make important industries less vulnerable to capacity constraints, operational disruptions, and external events, thereby strengthening security of supply and preparedness at both the industrial and societal levels.

Although the proposed changes would have regulatory implications beyond the specific cases described, such changes are necessary in order to enable energy sharing in practice. Without a targeted further development of the regulatory framework, industrial energy communities in Norway will remain limited to small-scale solutions and time-limited pilot projects. The proposed regulatory measures should therefore form part of a targeted and integrated policy instrument in the further development of Norwegian energy, industrial, and preparedness policy, rather than being treated merely as isolated or temporary measures.

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