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CIRCULAR KAUPANES · COPPER

Regulatory Opportunities in Norway

From grid constraints to energy sharing

Circular Kaupanes is a project supported by



Innovation
Norway



PRESENTERS · INVOLVED IN THE CIRCULAR KAUPANES AND COPPER PROJECTS

Natalia Mathisen

NCCE

Thea Emilie Løland Hareide

Thommessen

Mariela Zamfirova

Egersund Næring og Havn

WHERE THIS STORY HAPPENS

Kaupanes Industrial Area, Norway

A potential large-scale industrial energy community.



Strategic port location



Seafood industry



Fishing port and logistics hub



Industrial infrastructure



Surplus high-quality heat potential
80–90 °C



Renewable energy opportunities



Green hydrogen production facility

Vision: A fully integrated industrial energy ecosystem.



Norway's Regulatory Starting Point

Although Norway participates in the European Economic Area (EEA), it has not yet established Renewable Energy Communities (RECs) and Citizen Energy Communities (CECs) as distinct legal concepts in national legislation.

National regulatory framework: governed by the Energy Act (Energiloven), regulated by NVE and RME (the Regulatory Authority for Energy).

Since Oct 2023

Since Jan 2026

Same-property sharing

1 MW cap

Virtual sharing of self-produced electricity within the same property.

Same-business-area sharing

5 MW cap

Dedicated scheme for qualifying commercial and industrial areas.

Why Are We Talking About Energy Sharing?



Growing Electricity Demand

Industry consumption is rising rapidly, putting pressure on existing infrastructure.



Limited Grid Capacity

The grid cannot keep pace with industrial growth without significant investment.



Decarbonisation Requirements

Increasing regulatory pressure to reduce emissions across all industrial sectors.

Smarter Use of Energy Resources Is Crucial.

Why Physical Sharing Is Difficult

Distribution grids must normally be owned and operated by the licensed DSO

due to socio-economic efficiency, environmental impacts, and fairness considerations (consumer protection, non-discrimination, efficient grid development)

CONSEQUENCES



Private industrial microgrids are difficult to establish



Energy sharing between companies is restricted



Scaling shared-energy solutions becomes difficult



THE EXCEPTION

Pilot & Demonstration Projects

Requires an NVE licence, with a defined scope, a specific objective and innovative solutions.

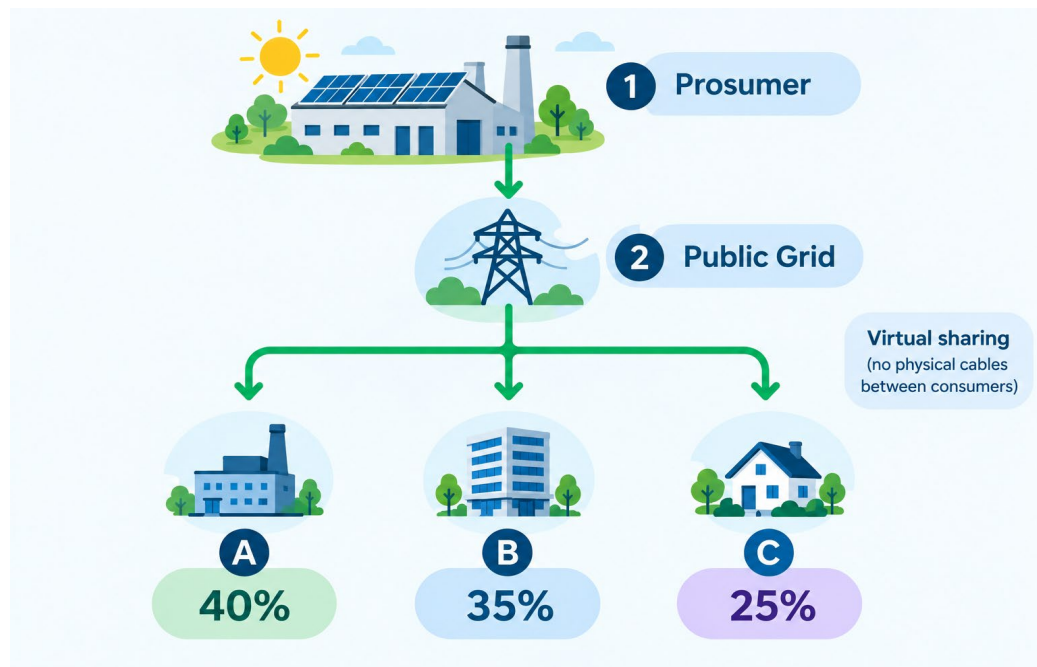
Standard conditions

- Time-limited (1–3 years)
- Publication of objectives and results
- Reporting to NVE; cooperation agreement

After the exemption period, ordinary regulations apply.

Virtual Sharing

Instead of sharing electricity physically, share it financially.



HOW IT WORKS

A producer's surplus electricity flows into the public grid as normal.

Participating consumers are then financially allocated a share of that production, with no physical cable needed between them.

This is the mechanism that makes energy communities possible under Norwegian rules today.

Two Ways to Share: Property vs Business Area

SECTION 3-12 · SINCE OCT 2023

Same Property

1 MW

Aimed at citizens and smaller local initiatives

- Who: same municipality, farm and property number; participants remain ordinary DSO customers.
- Registration: the grid company registers the sharing in Elhub at the producer's request.
- Model: surplus production only, allocated via metering points. Not peer-to-peer.
- Settlement: run by the DSO and Elhub, never by the producer.

SECTION 3-13 · SINCE 1 JAN 2026

Same Business Area

5 MW

Extends sharing across industrial and business parks

- Who: metering points in the same or nearby properties of one business area.
- Location: renewables on built-up areas, 5 MW AC in total across the area.
- Limits: renewables only; no supply to third parties; no production behind own meter.
- Distribution: only surplus power, shared by a predefined key registered in Elhub.

THE PROBLEM

Today's Limit Isn't Enough

OUR PROPOSAL TO DECISION-MAKERS IN NORWAY

CURRENT REGULATORY CAP

5 MW

Section 3-13 business-area sharing limit



KAUPANES, TOMORROW

20–50 MW+

Realistic demand for a growing industrial park

Conclusion: The new framework is a good start, but it is too small for industrial parks.

What Needs To Change?

01



Raise the sharing limit

Increase the renewable energy sharing cap from 5 MW to 50 MW+, matching real industrial-park demand.

02



Introduce collective grid tariffs

Enable tariff structures that reflect shared use of infrastructure across a business area.

03



Long-term microgrid pilots

Move beyond short pilots toward long-term industrial microgrid programmes.

Together, these measures would reduce uncertainty for businesses, improve the economic viability of shared energy solutions and encourage investment in local energy infrastructure — ultimately accelerating industrial decarbonisation.

Norway is responding to power and grid constraints



Government Power Package (September 2026)

- Faster permitting of grid projects.
- Simplified procedures for renewable energy projects.
- Prioritisation of critical grid infrastructure.
- Measures intended to accelerate access to power for industry.
- Better utilisation of existing grid capacity.

WHY THIS MATTERS FOR CIRCULAR KAUPANES



More renewable generation



Faster grid development



Greater focus on industrial
electrification



Stronger need for energy sharing and
flexibility solutions

While these measures are important, as we have experienced in Circular Kaupanes: they do not fully address the regulatory barriers to local energy sharing within industrial areas.

The Opportunity

- ✓ The technology already exists.
- ✓ The industrial demand already exists.
- ✓ The business case already exists.
- ⚠ **The remaining challenge is regulation.**

Circular Kaupanes can become Norway's first large-scale industrial energy community.