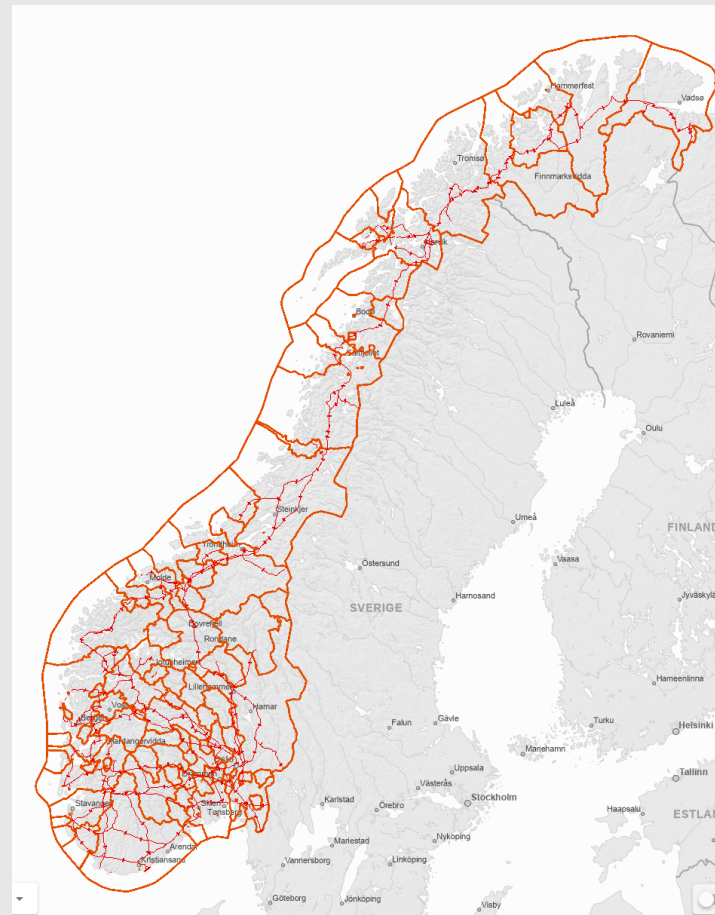


# Further expansion of NextGrid



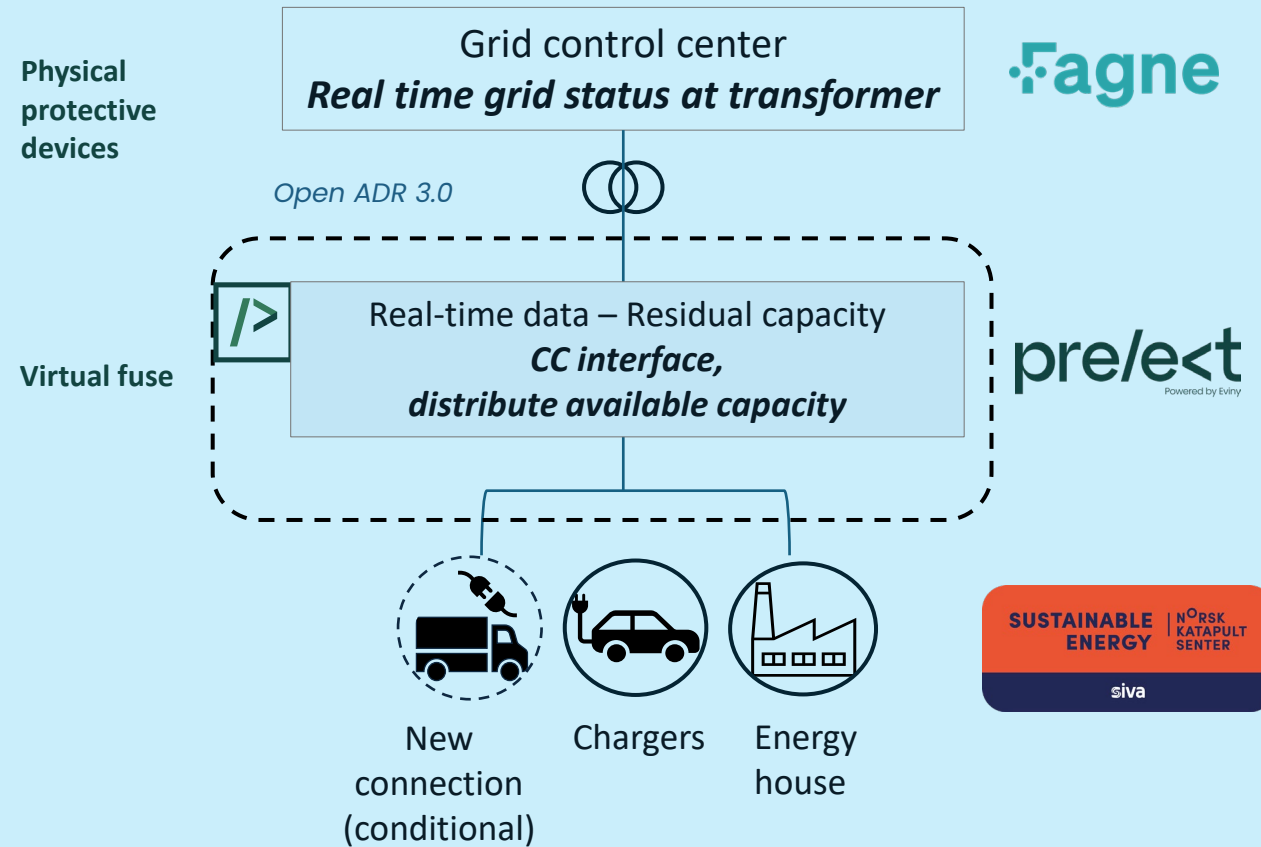
# NextGrid: A Step Toward a Smarter Grid

- Fragmented DSO landscape
- Different technical approaches
- Future potential



# TPV pilot with Fagne

**MVP:**



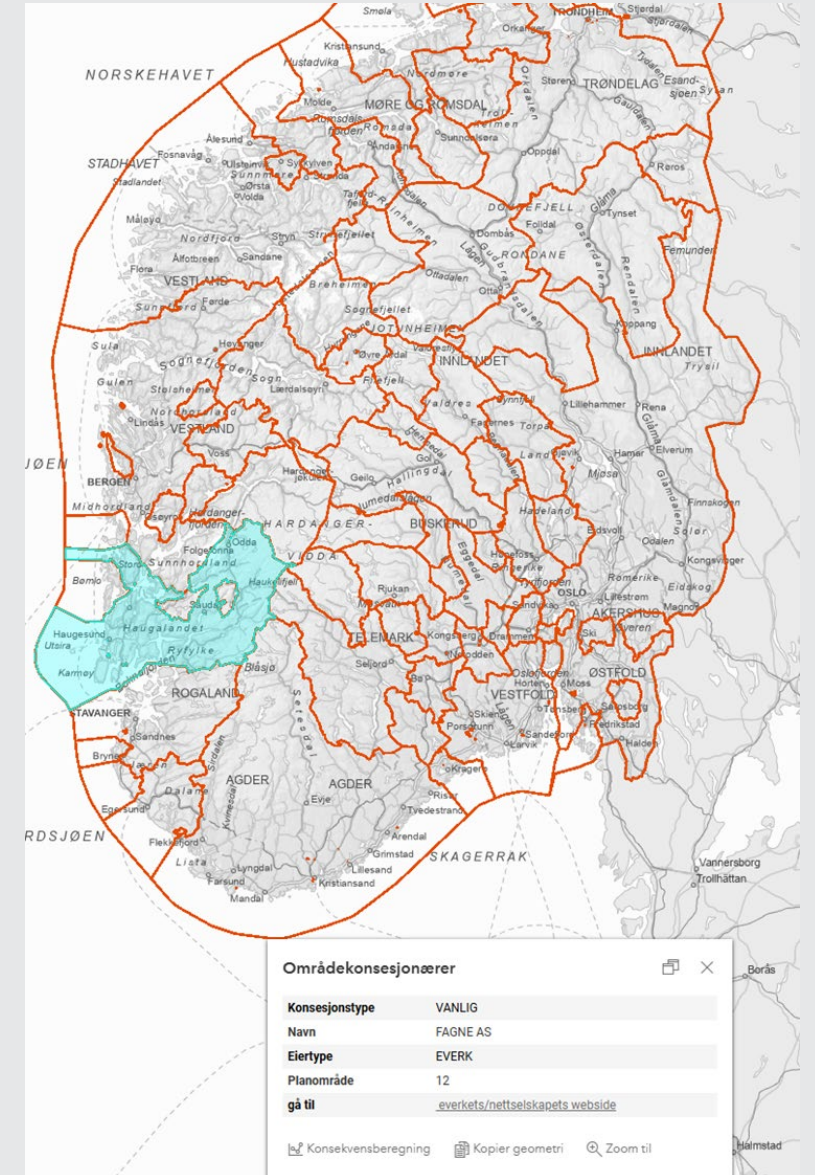
# Sweden vs. Norway

## Conditional Grid Connections and Standardization

| Area                       | Sweden                                                                             | Norway                                                          | Sweden's Advantage                                           |
|----------------------------|------------------------------------------------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------|
| National coordination      | Has an <i>industry-wide recommendation</i> coordinated by Energiföretagen Sverige. | No national coordination or shared guidelines between DSOs.     | Common direction and shared understanding across all DSOs.   |
| Standardization            | Adopted <b>OpenADR</b> as national standard for communication.                     | Several parallel protocols (RTU-based, manual or local pilots). | One unified and future-proof protocol reduces fragmentation. |
| Proof of concept (PoC)     | National PoC tested OpenADR with DSOs and customers.                               | Limited pilots, not coordinated nationally (e.g., NextGrid).    | Shared experience and validated results at national level.   |
| Technical maturity         | Transitioning to <b>OpenADR 3.0</b> (RESTful API, JSON).                           | Some RTU-based and early OpenADR tests.                         | Ahead in digitalization and interoperability.                |
| Documentation and guidance | Detailed <i>industry recommendation</i> (ver 1.0) published and shared.            | No equivalent guideline for Norwegian DSOs.                     | Clear framework for implementation and compliance.           |
| Customer interface         | Defined process for customer acknowledgment and real-time data exchange.           | Varies by DSO; often manual or project-based.                   | Predictable and automated interaction for all stakeholders.  |
| Signal harmonization       | Standardized parameters and signal naming.                                         | Different systems, no unified signal structure.                 | Easier integration for customers across DSOs.                |

# The Challenge

- Limited grid capacity
- Long lead times for new industrial connections
- Restricted regional growth



# The Goal

- Develop a prototype for automatic load control
- Contribute to faster and more flexible grid connection
- Support sustainable industrial growth in the region

# The Solution

- Automatic load management based on real-time data
- Conditional grid connections without major upgrades
- Smarter, more flexible operation of the local power grid

# fagne

DSO  
Email notification services  
Real-time grid data

# pre/e<t

Powered by Eviny

Prelect CGM Service (Conditional Grid Agreement)

OpenADR 3.0  
protocol

Registration  
Event generation  
Report requests

Event handling  
Report generation  
Real-time power measurement

VEN

**enlink**

VEN

**eviny**

Open Source OpenADR 3.0  
VEN Client

VEN

Other VEN clients

REST API

**ALLTEC**  
SMART ENERGY SERVICES

**SUSTAINABLE ENERGY**  
NORSK KATAPULT SENTER

siva

Energy House

Other clients

Other clients

OpenADR, OCPP,  
Matter, BACnet, IEEE  
2030.5 or other  
protocols

Business logic  
Event response  
Asset overview and management





State  
Undefined

Current Parameter set

Operator  
Admin

Logout

Date and Time  
10/30/2025, 1:36:55 PM

TC1 TC3 Stord H2 Cooling Diesel  
TC2 TC5 GSP Heating PMS

1 Screen 2 Screens 3 Screens 4 Screens



Power Overview

Power Flow

Main SLD

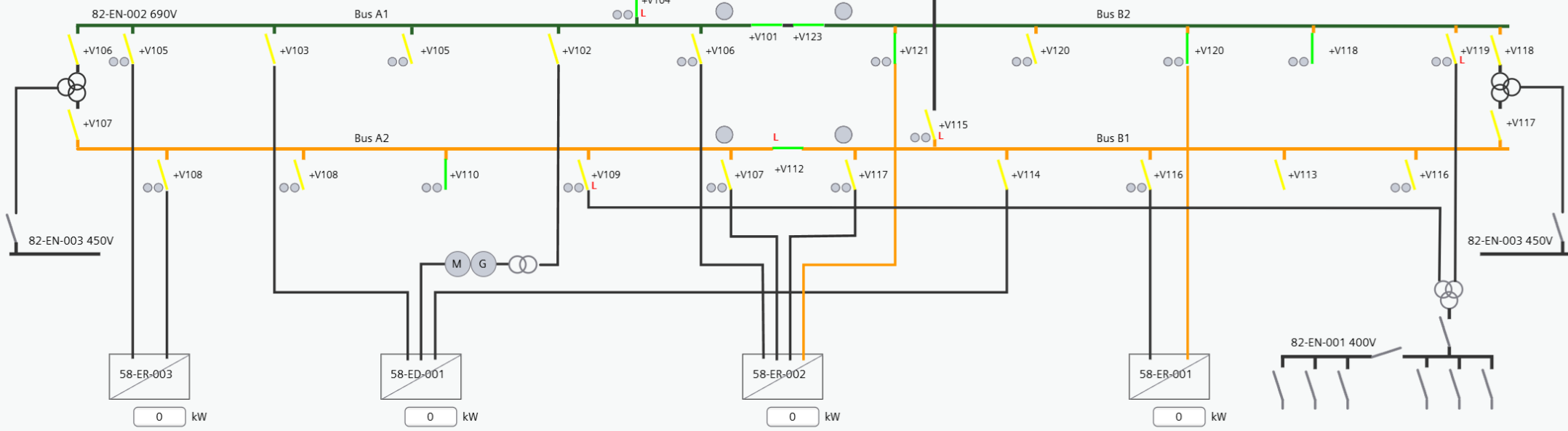
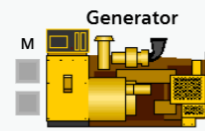
Alarms

Trends

- PMS & FCS Comm
- PMS & GNT Comm
- ☒ Enable Shed Sequence ☐ Enable Generator to Shed Sequence
- Priority 1 Activated Limit 1 2000.00 kW Deactivated Limit 1 1890.00 kW
- Priority 2 Activated Limit 2 1900.00 kW Deactivated Limit 2 1795.50 kW
- Priority 3 Activated Limit 3 1820.00 kW Deactivated Limit 3 1719.90 kW
- Priority 4 Activated Limit 4 1800.00 kW Deactivated Limit 4 1701.00 kW

| Module Name |                | Module Name |             |
|-------------|----------------|-------------|-------------|
| Phase 1     | 12477          | Phase 1     | 0           |
| Phase 2     | 12745          | Phase 2     | 0           |
| Phase 3     | 12550          | Phase 3     | 0           |
|             | Frequency 5000 |             | Frequency 0 |

NextGrid Limit 2000.00 kW  
EH Total Power 81.83 kW  
690V V104 Total Power 70.16 kW  
690V V115 Total Power 11.67 kW



"AlarmBanner"

OK

TC1 TC2 TC3 TC5 Heat/Cool Biogas NG Comp NH3 Tank NH3 Supply Diesel HVAC Press. Air Shutdown Fire & Gas Trends Pwr Mngmt Alarmlist

# The Impact

- Faster access to the grid for new and growing industries
- Better utilisation of existing grid capacity
- Reduced need for costly and time-consuming grid expansions

**Thank you for your attention**