SmartgridOne

Overview of All Included Features

+200 integrations for monitoring and managing devices

All available integrations can be viewed at: https://docs.eniris.be/category/supported-devices/

Control multiple (battery) inverters, charging stations, heatpumps, boilers and on/off loads simultaneously.

Using Modbus TCP, we can read and control multiple energy devices, though each additional device may introduce delays in reading or writing. Modbus RTU is limited to approximately 20 devices (every additional device introduces a delay of approximately ±2 seconds).

Real-time monitoring with the app

Your standard package includes access to the app (app.smartgridone.com) for monitoring your installation or multiple installations.

The ability to configure grid and current limits.

The SmartgridOne will utilize the connected devices as efficiently as possible to aim to ensure that the configured limits are not exceeded. The detailed functionality is explained at: https://docs.eniris.be/Configuration%20from%20A%20to%20Z/grid-limits/

Supervision of current thresholds for internal groups and switchboards

Access to the day-ahead market, imbalance market, or other markets.

If this integration incurs a cost (e.g., energy companies may apply fees or profit-sharing), these external costs are not included. Below is a small overview of the available providers. Check all available price signals at: https://docs.eniris.be/category/supported-external-control-integrations/

Anything not explicitly mentioned is not guaranteed by Eniris.

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Overview of All Included Features

⚡ A system capable of managing batteries, EV charging stations, heat pumps, and PV inverters

- peakshaving
- curtailment
- optimization of self consumption
- load balancing
- zero export

A required annual or one-time license fee applies for this functionality. The control modes can be found at: https: docs.eniris.be/category/8-local-control-modes/

Below an overview of the different control modes per device type:

STORAGE DEVICES (BATTERY SYSTEMS)

- *Don't control: No active control. (Note that this can be overwritten by an external signal).*
- *Self-consumption optimalization: Charging when there is excess solar power, and discharging when energy is taken from the grid.*
- *Cost optimalization: Charge with the least expensive possible energy, and cover consumption at the most expensive times. You can optionally allow energy trading.*
- *Peak shaving only: Discharge at times of peak consumption from the grid, and charge at off-peak times. You can set your own threshold values for this.*
- *Exclusive control through external API: Only charge and discharge according to external control signals.*

PRODUCTION DEVICES

- *Don't control: No active control. (Note that this can be overwritten by an external signal).*
- *Cost optimalization: PV production is turned off at negative purchase prices (you are then paid to consume), and limited to your energy consumption at negative sales prices (you pay to inject your surplus). At other times, PV production is limited to allowable feed-in power.*
- *Feed in restriction till allowed grid export power: Limit PV production to the allowed grid export power.*
- *Exclusive control via external API: Only limit PV production according to external control signals.*

EVs (ELECTRIC VEHICLES)

- *Don't control: No active control. (Note that this can be overwritten by an external signal).*
- *Self-consumption optimalization: Charging when there is excess solar power.*
- *Cost optimalization: Charge with the least expensive possible energy.*
- *Peak shaving only: Limit charging to the maximum allowed grid import power.*

HEAT PUMPS, BOILERS AND ON/OFF LOADS

- *Don't control: No active control. (Note that this can be overwritten by an external signal).*
- *Self-consumption optimalization: Prefer consumption when there is surplus solar energy. There are three submodes:*
  - *Only schedule when there is surplus production, but still allow that switching the heat pump / boiler or on/off load on causes import from the grid.*
  - *Only schedule when there is sufficient surplus production to not cause import from the grid.*
  - *Prefer scheduling at moments of surplus production, but also schedule at moments of low import.*
- *Cost optimalization: Prefer consumption with the least expensive possible energy.*
- *Peak shaving only: Limit consumption when grid power exceeds a threshold.*
- *Always powered on: Always on unless overridden by an external control signal.*
- *Always powered off: Always off, unless overridden by an external control signal.*

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- **Reactive power control (select inverters)**

- **Weather-sensitive generation forecasts**
  Based on our integration with the weather service, we can predict your locally generated production.

- **Energy consumtion and production forecasts**
  Based on historical data at the grid connection point, we use AI to predict future consumption and production profiles.

- **Order of plans and priorities**
  You can assign a priority to each device.

- **Battery-assisted grid support at charging hubs**
  i.e. using the battery to enable higher-power EV charging than what the grid would typically allow. This applies only in the absence of external control signals—such support cannot be provided when an external signal is active

- **Remote configuration interface**

- **MQTT API Control**

- **Role-based access control**
  Flexible, multi-level access with role-based profiles (super admin, admin, installer, user) and unlimited user accounts.

- **Access to online documentation and the opportunity to attend our training sessions.**
  Our online documentation can be found at: https://docs.eniris.be/

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- **Troubleshooting and support available through our troubleshooting wizard.**
  Our online wizard can be found at: https://eniris.io/support

- **Data Encryption and Security**
  To review the security policy of our EMS, visit: https://wiki.eniris.be/wiki/publicinformation/view/Compliance%20en%20Governance/Security/

- **Software updates and security patches included**
  As long as the payment terms for the license and the controller are met, you will continue to receive maintenance and security patches.

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Optionally available (non limited list)

White-label casing for the controller

The cover of the controller can be customized with your logo.

A virtual power plant (VPP)

Build your own Virtual Power Plant (VPP) in our smartgridX platform.

Access to SmartgridX environment

With SmartgridX, you can monitor your portfolio at a higher level rather than focusing solely on individual installations. Explore all its advanced features at: https://stonly.com/guide/en/smartgridx-portal-NOWQOrbwMb/Steps/2972420

Alarm management EMAIL

Receive alerts when your installation goes offline or encounters issues. To enable this, you need access to SmartgridX with the additional feature "Alarm Management Email".

Reporting

The following templates are available:

- Installation Report
- Overview Report
- Alarm Report

Integration with a telecontrol RTU module of the TSO or DSO

Since this is always a custom solution, it is not by default as a driver available on the controller.

Export data to external systems or tools for further analysis

Through our API interface, you can export data to external systems. For more information about our API interface, visit: https://wiki.eniris.be/wiki/publicinformation/view/Products%20%26%20Services/API/API%20Calls/.

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