

# INNOVATION

## Scaling the Peaks of Sustainability

GreenAlp - Grenoble, France

How EcoStruxure™ for Electricity Companies  
turns a city district greener.

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## Innovating in the capital of the Alps

GreenAlp, the electric distribution network operator in Grenoble, France, serves more than 120,000 customers, a majority of which are residential, as well as some electro-intensive industrial customers. The city, which sits at the base of the French Alps, is well established as a center for innovative research and technology, and one of GreenAlp's main customers is CEA (Grenoble Alternative Energies and Atomic Energy Commission), a large research facility.

Much like its customers, GreenAlp is committed to being green and innovative. GreenAlp is a mid-size electrical company and does not have the capacity for its own research center, but relies on local actors and advancements in the industry.

That is why the network operator has chosen to be the first French user of Schneider Electric's new SF<sub>6</sub>-free AirSeT medium voltage technology. "We did not hesitate for a moment to participate in the pilot," says Sébastien Julien, Director of Network Operations at GreenAlp. "It's in our DNA to be innovative and innovative with others." Participating in this pilot project is another major step on GreenAlp's mission to be a greener network operator.

New SF<sub>6</sub>-free green and digital switchgear technology eliminates the need for SF<sub>6</sub>, a greenhouse gas, that has long been used in electrical equipment. Instead, the switchgear uses only pure air insulation and Shunt Vacuum Interruption technology. It does this while providing the same network quality and reliability without harming the environment.

## Goal

GreenAlp, a French distribution system operator, has strong efficiency and sustainability ambitions.

## Story

Innovation is in GreenAlp's DNA. The company partners with Schneider Electric to modernize MV network equipment with new SF<sub>6</sub>-free disruptive solution: AirSeT.

## Solution

Schneider Electric's new AirSeT medium voltage innovation is powered by air and has advanced digital features.

## Results

GreenAlp replaces SF<sub>6</sub> with an environmentally friendly solution and has now the ability to analyze data for better asset management.

## Toward better sustainability for tomorrow

GreenAlp has 6 main electrical substations of 225,000 volts or 63,000 volts which transform into 20,000 volts and especially 750 MV/LV substations.

These MV/LV substations have aging equipment that constantly needs renewing. One of GreenAlp's aims for this project is to learn how it can renew its existing switchgear in the future.

GreenAlp is piloting AirSeT switchgear in a new building located in an eco-neighborhood of Grenoble that is in the midst of redevelopment.

The network operator's requirements were straightforward: it sought to reduce its ecological footprint by testing a product that has no greenhouse gas impact while still using switchgear that corresponds with installed network equipment.

[The pilot project is helping GreenAlp](#) prepare for the future by using sustainable technological improvements.

Service continuity has been one of GreenAlp's main challenges. It needs real-time knowledge of the network, which can be challenging. Sensors in the new switchgear, powered by air and digital, provide visibility into the equipment's health status. This allows GreenAlp to increase uptime while reducing maintenance costs and risks. The technically advanced switchgear "requires almost no maintenance," according to Sébastien Julien.

The new switchgear is optimizing the maintenance process with digitization and modernization efforts – which goes a long way toward supporting service continuity improvements. GreenAlp is using sensors to obtain real-time knowledge of its assets so that it can better maintain equipment, anticipate network failures, and best support its customers. The new MV solution is also being used to transform and modernize maintenance practices. This allows GreenAlp to better organize the deployment of maintenance teams and intervene before a breakdown, which is a financial gain for the network operator as well as for customers.



## Supporting GreenAlp's sustainability goals

Implementing AirSeT MV switchgear technology is allowing GreenAlp to meet its goals of more easily providing reliable, environmentally-friendly power with improved modernization and better predictive maintenance.

"What impressed me the most with the new switchgear is that it has the same size and footprint as existing equipment, while completely replacing SF<sub>6</sub> with air. It accounts for the constraints of a distribution network manager. Sébastien Julien said. "We did not imagine that it was so simple to eliminate SF<sub>6</sub>."

GreenAlp reports that it has already seen benefits from the pilot project. Its initial interest was in the green aspect of the technology. However, the network operator is also seeing improvements in the areas of digitalization, innovation, maintenance, and asset management.

"With the EcoStruxure solution, we are looking into the question of how to make tomorrow's distribution management possible: A sensor layer on the equipment, which gives us information on temperature, humidity, and flooding." Sébastien Julien said. "An ability to trace this information, an opportunity to analyze and leverage the data for asset management. For us, it is the revolution of our work of tomorrow, to change the way we carry out maintenance, to carry out our mission."

"The SF<sub>6</sub>-free technology from Schneider Electric is a green, innovative, and digital solution."

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— Sébastien Julien,  
Director of Network  
Operations, GreenAlp

# EcoStruxure™

## Innovation At Every Level

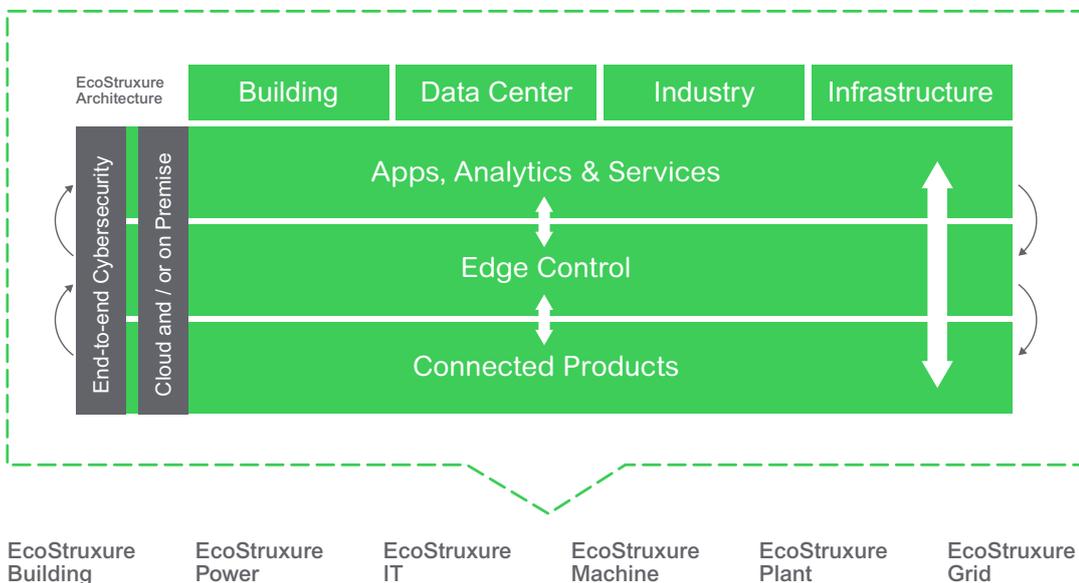
### IoT-enabled solutions that drive operational and energy efficiency

EcoStruxure is Schneider Electric's open, interoperable, IoT-enabled system architecture and platform.

EcoStruxure delivers enhanced value around safety, reliability, efficiency, sustainability, and connectivity for our customers.

EcoStruxure leverages advancements in IoT, mobility, sensing, cloud, analytics, and cybersecurity to deliver Innovation at Every Level including Connected Products, Edge Control, and Apps, Analytics & Services. EcoStruxure™ has been deployed in 480,000+ sites, with the support of 20,000+ system integrators and developers, connecting over 1.6 million assets under management through 40+ digital services.

### One EcoStruxure architecture, serving 4 End Markets with 6 Domains of Expertise



### Connected Products

The Internet of Things starts with the best things. Our IoT-enabled best-in-class connected products include breakers, drives, UPSs, relays, sensors, and more. Devices with embedded intelligence drive better decision-making throughout operations.

### Edge Control

Mission-critical scenarios can be unpredictable, so control of devices at the edge of the IoT network is a must. This essential capability provides real-time solutions that enable local control at the edge, protecting safety and uptime.

### Apps, Analytics & Services

Interoperability is imperative to supporting the diverse hardware and systems in building, data center, industry, and grid environments. EcoStruxure enables a breadth of agnostic Applications, Analytics, & Services for seamless enterprise integration.

Find out more about EcoStruxure

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How E.ON in Sweden is providing greener energy



Discover AirSeT technology



Discover EcoStruxure for Electricity Companies



How SF<sub>6</sub>-free and digital technologies combine for sustainability and efficiency



Read our report: Digital Grid Unleashed

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October 2022

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998-20738200

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