

# STELLA Futura

*"As a global  
Power as a Service provider  
we combine engineering excellence with smart financing"*





# Who We Are

*One package, Different markets*

## 1 Independent Energy System Designers

Energy design, Installation & Maintenance Experts

*"We choose the technology that best fits our client needs"*

## 2 Market and Business Innovators

*"We innovate financial models to create attractive EaaS-offers that works for our off-takers and increase of implementation impact"*

## 3 Technology Agnostics

We partner with World Leading Technology Providers

*"Mastering storage technologies is key to roll-out green energy solutions"*





# STELLA – Value Proposition Sweden

One package, Different markets



**SESTRA/ PaaS - Flex Market/FFR FCRd & FCRn**  
Real estate companies, Swedish Church, Waste Waccum Fac., Municipalities,

**Grid Support Services/Flex Market/FFR & FCRn**  
Hydro Power Plants  
Solar/Wind Utility Scale

**Heavy Power Demand Charge Industry**  
Milk Farms, Stone Crushing, Ports, Waste Vacuum Fac.

**EV Fast Charging**  
Public Chargers with energy storage system  
Commercial large Vehicle and vessel Charging

# Selected Technology Providers



SOLAR POWER



ENERGY STORAGE



INVERTER TECHNOLOGY



DATA SYSTEMS





# We know Storage

## TECHNICAL COMPONENTS

### CABINET SYSTEMS

### CONTAINER SYSTEM



10kWh – 100MWh



# SEMS – Technical Interface



**Unique Battery Inverter Technology that manage frequency fluctuations between 45-54 Hz! Visit: [www.zehtc.org](http://www.zehtc.org)**



First rental agreement ever made in Europe of a Battery Energy Storage System

130 kW solar PV system

75kW/76kWh Battery Energy Storage System



TESVOLT  
stella  
Energy as a Service

TESVOLT  
stella  
Energy as a Service



### Scope

Access energy from gas turbine tests and electricity from solar panels will be used to produce hydrogen in an electrolyzer.

The hydrogen will then be used as a fuel in future gas turbine tests. In the local microgrid created, it will be possible to optimize the use of energy through storage as hydrogen and/or in batteries.

Hydrogen produced in the plant will also enable continued research and development to optimize the use of hydrogen in gas turbines and reach Siemens Energy's goal to run gas turbines on

100% hydrogen resulting in zero carbon emissions by 2030.

### Technical Solution

The BESS is operating and controlling the complete energy system including steering of the Electrolyzers On and or Off Grid!  
(i.e Island mode)

"STELLA Futura has successfully been able to provide Siemens Energy and the project "Zero Emission Hydrogen Turbine Center" with a unique energy storage solution combined with a solar PV park. STELLA were the only company, in our global tender, with the capability and competence to solve this task and offer Siemens Energy a state-of-the-art system. In addition, STELLA also included a leasing option for the battery solution, which has not been seen on the market before. I believe STELLA is in the forefront in delivering unique technology and business models. They have proven to understand our needs as their client, and delivered in close communication with our internal team at Siemens Energy."

**Mattias Vieweg, Project Sponsor and Tech Project Manager**





# Green Dairy Farms:

## Peak shaving and Increased self-consumption



### STELLA REFERENCE PROJECT

Dairy farmer in the middle of Sweden.

- Stabilizing weak grid
- Avoidance of demand charge increases
- Increased self-consumption
- Independency through off-grid solution



216 kWp

Solar PV

307 kWh

Battery Storage



70%

Savings/year

7,2%

ROI



”För mig som modern och framåtsträvande lantbrukare känns det helt rätt att satsa på framtidens energisystem. Jag liksom många med mig ser att trenden går mot kraftigt ökade energikostnader och ändrade effekttariffer. Det ser jag redan idag, varför jag vill kunna planera mina kostnader bättre samt försäkra mig inför framtida prisökningar, samtidigt som jag vill vara mer självständig.”

**Patrik Leo, ägare av Svenneby Gård, Vikbolandet.**



# Off-grid Battery Solution for large Diesel Savings

- Cost savings on diesel (\$130.000 US/y)
- Reduces CO2
- Cost savings of lubricants and O&M (\$11.000 US/år)
- Less noise, better air quality and less vibrations at the farm.
- Minimum service and Maintenance needed



***"After we installed this BESS hybrid solution we nearly forgot about it. It runs automatically and nearly no service & maintenance is needed".***

***Payback time on a \$190.000 investment in this BC is less than 2 years.***

**Gjermund Olsen, VD**



# Frequency Services Hydro Power:

## Battery container solution for grid support at hydro power plant



### STELLA REFERENCE PROJECT

Upgrading Granboforsens hydro power plant, Jämtland.

Increased revenue through services;

FCR-N *Frequency Containment Reserve Normal*

FCR-D *Frequency Containment Reserve Disturbance*

FFR *Fast Frequency Response*

- Reduced wear of the turbines
- Reduced maintenance costs
- Major environmental benefits through more stable water levels



1040 kW

Battery capacity

1095 kWh

Battery Storage



“We are upgrading Granboforsen Hydropower Plant by adding a BESS. The turbines will be able to react to a rapid change in the frequency of the national grid. This means that the power plant will be able to support the power national grid in the event of disruption and ensure normal operation.”

**Susanne Handler, Project Manager**





[Se filmen här](#)

Stockholm