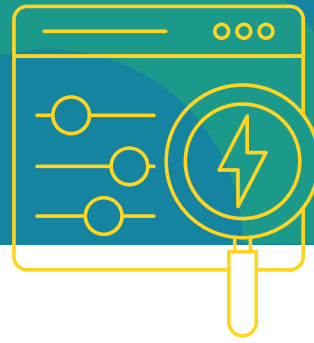




# Arctic Paper Grycksbo

## Paper Mill's Winning Strategy for Demand Response

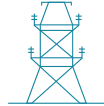


PARTICIPATION



**30+ MW**

MARKET



**FCR-D Up  
FCR-D Down**

GROSS REVENUE

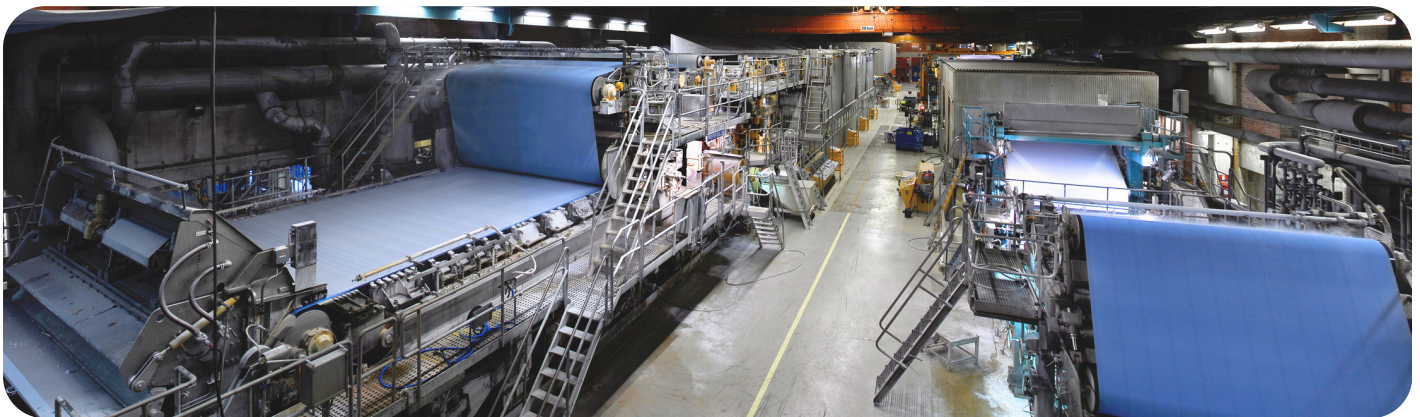


**€130-150K**  
PER MW PER YEAR



## ARCTIC PAPER

Paper mill Arctic Paper Grycksbo is a leading manufacturer of wood-free coated paper, producing 210,000 tonnes of high-quality coated graphic paper annually. **Since 2020, Arctic Paper has been participating in demand response with Sympower and Vattenfall**, using much of its energy-intensive equipment to balance the Swedish grid.



### Integrating demand response to reduce energy costs

Like many papermaking businesses, Arctic Paper Grycksbo was seeking **new ways to reduce its energy costs without impacting production**. As a sustainability-driven company, they also wanted to strengthen their competitiveness by supporting Sweden's energy transition.

Arctic Paper turned to their energy provider Vattenfall for guidance on participating in Sweden's energy markets. **Participating in demand-side flexibility appeared to be the ideal solution**, and Vattenfall introduced Sympower as their flexibility services provider and demand response expert.

### Monetising flexibility from existing equipment

Papermaking is an energy-intensive process requiring steam and electricity. Sympower's teams worked closely with Arctic Paper to identify **which of their existing equipment could alter their consumption quickly enough without drastically impacting the company's core processes**.

By working closely with Arctic Paper, Sympower's energy experts identified that their **pulp refiner, e-boiler, pump, crusher, pulp mass dissolve, solar panels, infra heaters, and stirrers** were ideal assets for the FCR-D Up and FCR-D Down market programmes.

# FCR-D Up and Down

Arctic Paper is active on the FCR-D Up and Down markets. The Frequency Containment Reserves for Disturbances (FCR-D) are the **first to be activated** to fix disturbances in the grid's frequency. When participating in FCR-D Up, customers must **reduce their electricity consumption for a few minutes** until the grid frequency is back in balance at 50 Hz, while those active on FCR-D Down have to increase their electricity consumption.

Because the FCR-D are the first defensive layer to prevent blackouts, the **energy assets connected to them must be able to be reduced significantly within 5 seconds.**



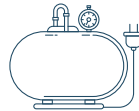
*"We wanted to find innovative ways of being part of the energy transition, so the solution offered by Vattenfall and Sympower perfectly met our needs. We really appreciate how Sympower's teams focus on not disturbing our core processes. We're also really happy to see extra revenue generated from our participation in demand response, which ultimately enables more renewable energy to power Sweden."*

**Stefan Gatu** | Powerplant Manager, Arctic Paper Grycksbo

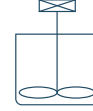
## Flexible assets in the pulp and paper industry



BATTERY



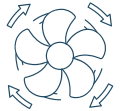
E-BOILER



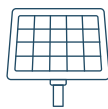
STIRRER



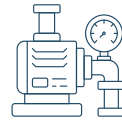
FURNANCE



FAN



PV SOLAR



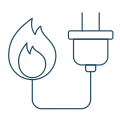
PUMP



ENGINE  
SAWMILL



CRUSHER



CHP

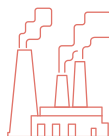
## Work with the Leading Independent Flexibility Service Provider in Europe



Active in  
**10**  
countries



Over  
**180**  
employees



More than  
**190**  
Commercial &  
Industrial Customers



Harnessing over  
**2 GW**  
of capacity



**Unlock your flexibility and Maximise Revenue!**

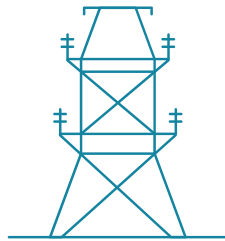
Contact our Energy Experts

# Benefits of demand response



## New Revenue Streams

Businesses can **discover new revenue streams**, by offering their energy flexibility to the grid during periods of peak hours.



## Reliable Grid

The flexibility of businesses, ensures that grid frequency stays balanced! Everyone connected to the grid **benefits from this reliable energy supply**.



## Sustainable solution

The energy transition needs demand response to help phase out fossil fuels, making it **essential for a sustainable energy system!**

## Plan a FlexScan

Contact us for a free consultation and find out your **revenue potential with demand response.**



**Stanislav Kiselev**

+358 50 3838 409

stanislav.kiselev@sympower.net



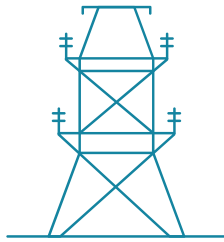


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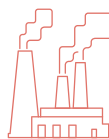
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