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Dear Readers, welcome to our first issue of CapraNews in 2026. The lead article of this issue is provided by Klere, one of our members. Klere, amongst other things, tackles biochar technology which is gaining momentum.

If you have interesting content in the renewables space which you would like us to share, then please contact us via the details on our website.

Energy, Biochar and Carbon Capture: how pyrolysis can power UK heat networks

If we're serious about decarbonising heat in the UK, we need solutions that work locally as well as nationally. One of the more interesting emerging options is the use of modern biochar pyrolysis plants as energy, biochar and carbon capture "EBACC" hubs feeding nearby heat networks.

How a pyrolysis heat hub works

Pyrolysis is the controlled heating of biomass (e.g. arboricultural arisings, clean woodchip or pellets) in a low-oxygen environment. Instead

of complete combustion the process splits it into:

- **Biochar** – a stable, carbon-rich solid that can be used as a soil enhancer, a water-filtration medium, or an additive in construction materials.
- **Hot gases and vapours** – which are then fully combusted to produce high-temperature heat

Systems such as the Woodtek C1000 are designed to capture that thermal energy for useful purposes such as feedstock drying, process heat or district heating connections. Klere has been working with Shropshire Council for the past two years, delivering one operational C1000 and a second in Ludlow which is expected to turn local green waste into biochar, renewable energy and durable carbon credits (CORCs). The creation of a joint-venture structure with the manufacturer has given the Council a low-risk entry into this new market.

Energy + biochar + carbon removal

A single C1000 unit can produce in the order of **1.0MW continuous thermal power (8GWh of heat energy annually)**. In addition to 800+ tonnes of high-grade biochar per year, locking away roughly 2,000 tonnes of CO₂ equivalent annually in a stable form that persists for centuries when used in soils or materials. That gives three benefits from the same machine:

1. **Renewable heat** – high-temperature base-load heat (1.0MW continuous thermal power) that can be transferred into hot-water loops for a local heat network, enough to power up to 400 homes.
2. **Biochar** – sold into agriculture, horticulture or construction, improving soils or displacing more carbon-intensive materials.
3. **Carbon removal** – quantified and monitored to generate high-quality carbon credits, increasingly recognised in UK and international carbon markets.

In effect, the unit becomes a small local carbon-removal plant that also pays its way by

supplying reliable heat. For larger networks, the C1000s can be grouped in sets of four, increasing output to 4MW and beyond.

Plugging into local heat networks

The UK is already scaling up low-carbon heat networks, backed by programmes such as the Green Heat Network Fund (GHNF), which supports new and expanded networks across England. Most current projects tap waste heat from industry, sewage works or large heat pumps – but small-scale biochar plants are a natural fit too. A C1000-scale unit is small enough to site near existing energy centres, but large enough to make a dent in both emissions and fuel bills. When supplied with local biomass (tree surgery arisings, hedge pruning), it also turns a disposal cost into a value stream.

Where next?

At Klere, we are working with Shropshire and several other councils around the country to identify suitable heat networks, campuses and leisure centres where EBACC machines can become anchor assets for the next generation of smart, low-carbon local heat networks in the UK.

New Capra Members



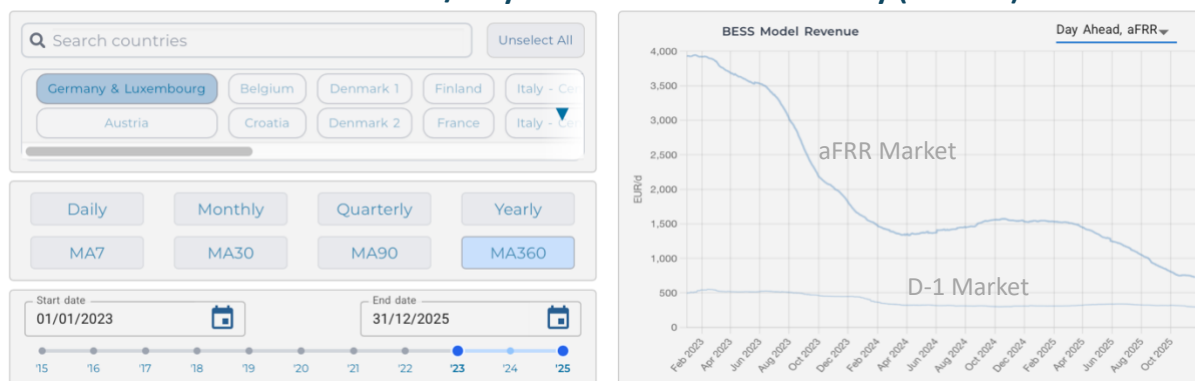
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Market View

Model Revenue for BESS in aFRR / Day-Ahead Markets in Germany (MA 360)



We have recently implemented bug-fixes and some conceptual changes to our (beta) BESS aFRR model revenue tool. Changes did not impact relative attractiveness of different markets but brought down levels. Conceptually, we now apply a 90% cycle efficiency, 5% loss charging and 5% loss on discharging. The models assume perfect foresight of aFRR dispatch prices and no limitation on cycle frequency. The model optimises over each imbalance settlement period (typically 15min intervals) with dispatch-volume weighting applied to prices inside each ISP window.

It is interesting to observe how competitive pressure is driving down aFRR model revenue potential in Germany. It is particularly interesting as this is not observed to the same extent across all other European countries over the same period. Some of the regions even witnessed increased revenue potential.

Sign up to Capra Renewables to see the full history for Germany and other ENTSO-E countries as well as the UK.

Members of Capra have full access to standard and balanced (forecasting errors taken through imbalance markets) capture prices as well as BESS model revenue in D-1 and aFRR markets for a range of European countries. Visit www.caprarenewables.com/price-and-market-information for additional information about Capra's market performance data.

Selection of Newsfeeds

Gennaker Offshore Wind Farm Secures Construction and Operations Permit in Germany

Skyborn Renewables has obtained the construction and operations permit for the 976 MW Gennaker offshore wind farm in the German Baltic Sea. The project is planned to comprise up to 63 turbines and is expected to deliver around 4 TWh per year. According to company statements, the permit represents the

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Greenvolt Power Agrees Sale of 253.1 MW Romanian Wind Project to ENGIE Romania

Greenvolt Power signed an agreement to sell its 253.1 MW onshore wind farm under construction in Ialomița County, Romania, to ENGIE Romania, with completion targeted in 2027. The project has secured a 15-year CfD for part of its capacity, providing long-term revenue visibility tied to state-backed support. Greenvolt Power is

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Skyworth PV Secures 10 MW Italian Solar Project with Government-Backed Revenue Support

Skyworth PV has executed an agreement to develop a 10 MW distributed PV plant in Ocre, Abruzzo, Italy, moving the project into the ready-to-build stage with construction planned to start following the award. The installation is expected to generate roughly 14 GWh annually. Skyworth PV is acting as EPC contractor

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European Energy's 200 MWh Solar-Plus-BESS Park in Denmark Begins Operations with Danske Commodities Optimisation

European Energy has energised the Kvested solar and battery park in Viborg Municipality, Denmark, integrating a 200 MWh BESS with its existing 101 MW solar plant, making it the largest combined solar-plus-battery facility in Northern Europe. The project's battery system, installed and electrically integrated by European Energy EPC over seven

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ACCIONA Energía's Logrosan Biomass Plant Begins Renewable Power Supply in Spain

ACCIONA Energía has started feeding renewable electricity from its 50 MW Logrosan biomass plant in Cáceres into Spain's grid. The facility is projected to produce about 380 GWh annually. The project was awarded through Spain's Ministry for Ecological Transition and Demographic Challenge under the third renewable energy auction, which secures

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Nuvve and E&B Renewables Announce MoU to Develop Up to 100 MW of BESS in Northern Europe and Baltic Regions

Nuvve Denmark, and Danish renewables developer E&B Renewables signed a non-binding MoU to collaborate on stationary BESS projects across Northern Europe and the Baltic countries. The framework targets a diversified portfolio of grid-connected BESS with capacities ranging from 2 MW to 100 MW, with Nuvve set to manage the assets.

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