

# Maximising whole system solutions

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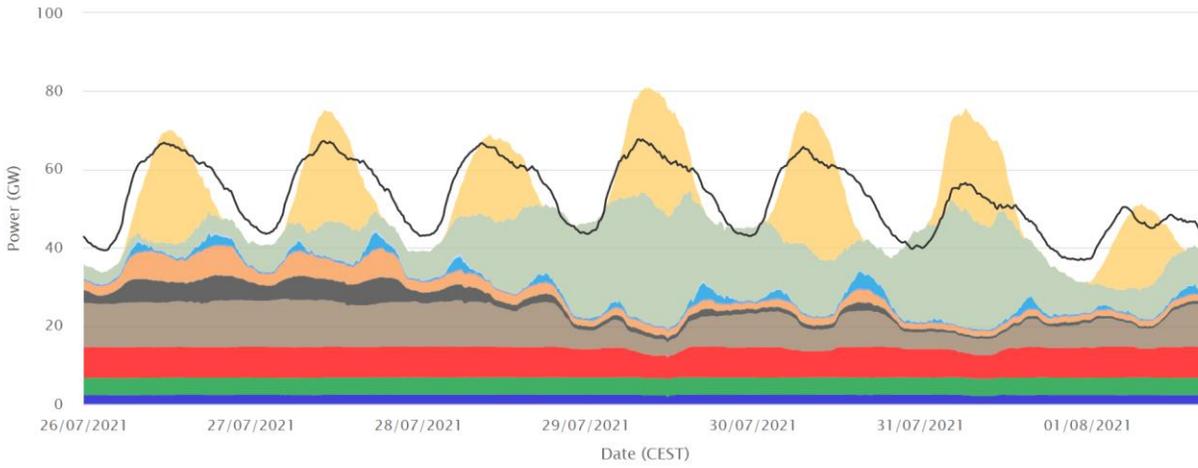
Senior Product Manager



# Energy system flexibility

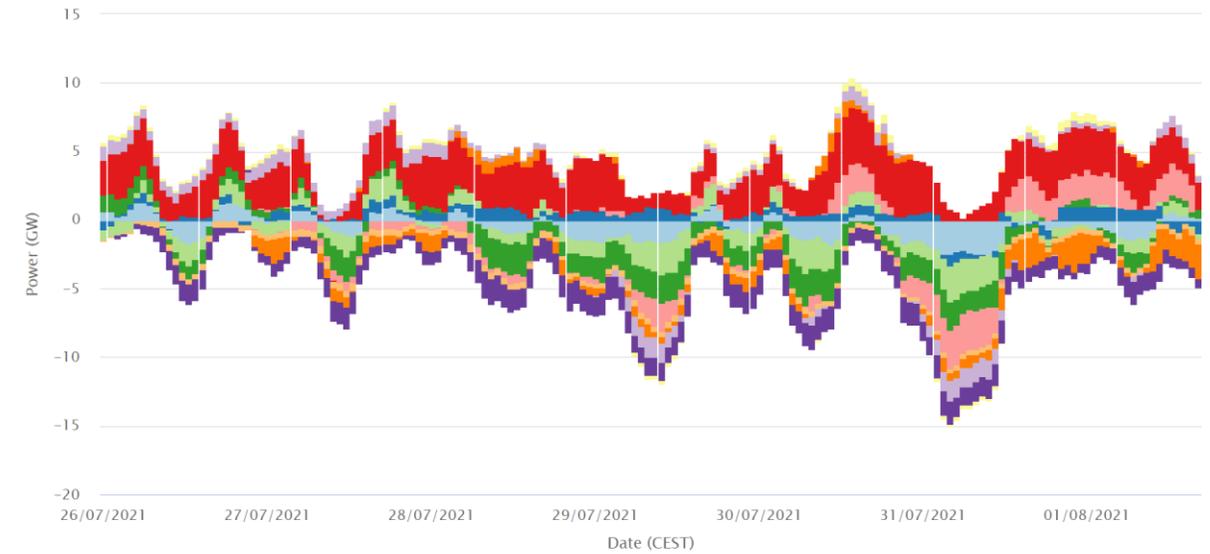
A growing need with future challenges and opportunities

Net electricity generation in Germany in week 30 2021



- Hydro Pumped Storage consumption
- Biomass
- Fossil Hard Coal
- Others
- Wind
- Residual load
- Import Balance
- Nuclear
- Fossil Oil
- Hydro Pumped Storage
- Solar
- Renewable Share
- Hydro Run-of-River
- Fossil Brown Coal
- Fossil Gas
- Hydro Water Reservoir
- Load

Electricity import and export of Germany in week 30 2021



- Austria
- Belgium
- Switzerland
- Czech Republic
- Denmark
- France
- Luxembourg
- Netherlands
- Norway
- Poland
- Sweden
- sum

Source: [Energy Charts \(energy-charts.info\)](https://energy-charts.info)

# Maximising whole system solutions

## SOME FOCUS AREAS

### Demand Response

- Introduction of **inertia Services** for system frequency response
- Energy Storage
- Voltage control with incentivising **reactive power services**

### Demand Management

- Investments in **energy efficiency**
- **Changing demand patterns**

### Systemic innovation

- Enabling smarter energy systems through
  - **Digitalisation**
  - Embracing **decentralisation trends**



Sources: [Global energy transformation: A roadmap to 2050 \(2019 edition\) \(irena.org\)](#); [Wood Mackenzie Power & Renewables - View](#)

# Journey to the Energy Sector



# Thank You

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