Battery storage replaced diesel engine at Dyke Golf club

Brighton & Hove Energy Services Co-operative
About BHESCo

- 37 community energy projects completed
- 168 shareholder members
- £500,000 investment raised
- 500 energy surveys conducted
- £152,000 saved on bills annually
Most power plants are only 33% efficient. Centralised networks lose 50% of energy (electricity & heat)

Electricity flow chart 2015 (TWh); Source: National Grid EMR Electricity Capacity Report
Changing the model of energy delivery from centralised to distributed generation
The Future

Our energy future optimizes the output of nature through technology

Courtesy of Greenpeace
Battery Storage

6MW battery storage facility at Leighton Buzzard
Peer-to-Peer Trading

Lewes Newhaven
- Prepare for auction
  - W19/20_LWNH - Window 1
    - 8 MW, 273 hours available
  - W19/20_LWNH - Window 2
    - 8 MW, 1092 hours available
  - W20/21_LWNH - Window 1
    - 8 MW, 272 hours available
  - W20/21_LWNH - Window 2
    - 8 MW, 1088 hours available

Qualifying assets
- 0 assets, 0 total capacity

Courtesy of Piclo
Case Study 1 - heat networks new developments

Shared ground loop heat pump system

£4,200 annual savings

86 tonnes CO$_2$ annual savings
Case Study 2 – urban office premises

4kW rooftop solar PV + LED lighting – ASHP and roof insulation

- £240 annual savings
- 3.8 tonnes annual CO₂ savings
District Heating

- Low carbon heat network for an off-gas rural community
- 5-10% annual bill savings
- 1,770 tonnes annual CO₂ savings
College Campus – East Sussex

- heat network: biomass for winter, solar thermal for summer
- Savings £11,360/year
- 160 tonnes annual CO$_2$ savings
Which is better???

Solar monocrystalline silicon + power diverter + immersion water cylinder.