



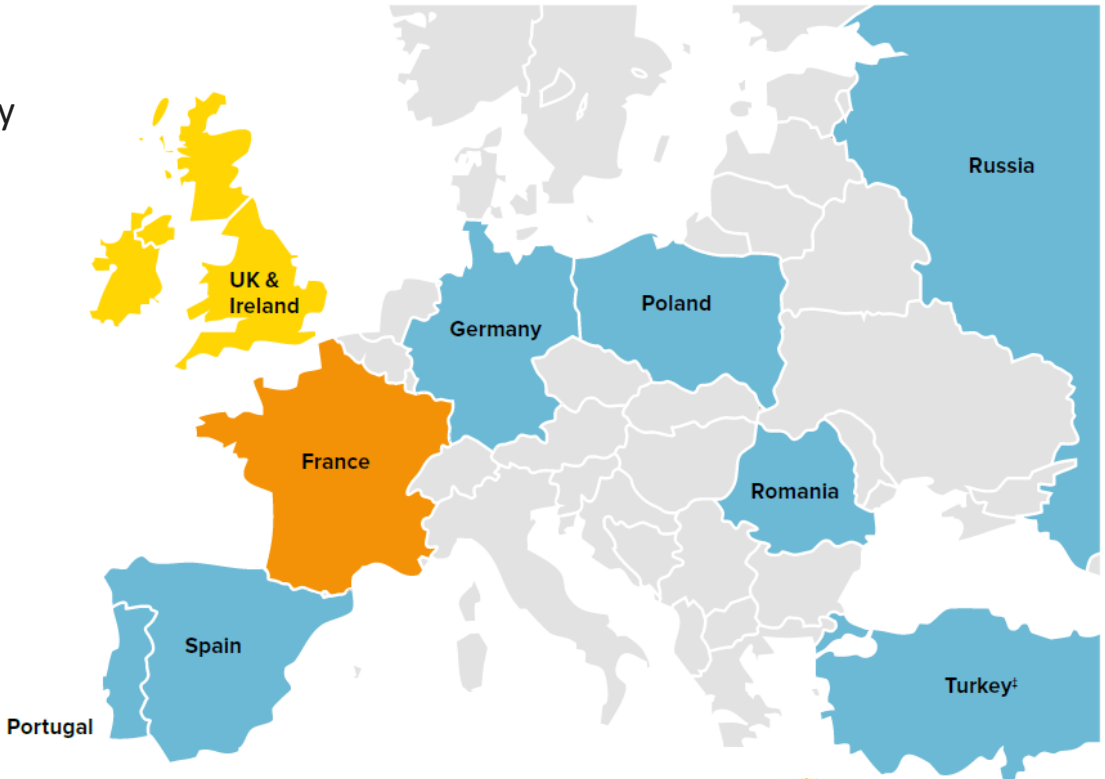
Battery Storage and its role for Kingfisher plc

Tuesday 30th October 2018



Who we are

- International home improvement company
- 1,300 stores
- 10 countries
- 79,000 employees
- £11.7bn turnover



Our Energy Strategy

Approach tailored specifically to each country

Energy Efficiency

- LED lighting
- Heating and cooling systems
- Insulation
- Heat pumps

On-site generation (Power/ Heat)

- Solar PV
- Battery storage
- Biomass heating

Renewable Power Supply

- 100% certificated power (REGO UK)
- PPA agreements



We have deployed two battery storage system models

Our priorities:

1. Reduce grid energy consumption
2. Create commercially viable and scalable energy solutions

Swindon Distribution Centre Battery Storage

- Original solar PV system 1.2 MW
- Shift pattern means large amount of export
- Combined PV extension 600 KW with 1.3 MW battery
- Gives us an extra 2 hours per night of self generated power
- Small income stream in business case for day ahead and FFR trading



Screwfix Net Zero Energy Trade Counters

Strategy: Create our first net zero energy store

Aim: To see if we can create a scalable model

Solution:

- Solar PV and battery optimised
- Crucial not only the generating technology but also maximising energy efficiency in the store
- 25 KW PV system with 10 KW battery
- 1 month to first anniversary – generated significant surplus



The Future

Battery storage could be a game changer for us:

- Building in spare battery capacity to racking
- Install additional capacity to enable further grid reductions
- Scope for more storage in our distribution centres
- Trial of trading revenues
- Front end power for fork lift battery charging

