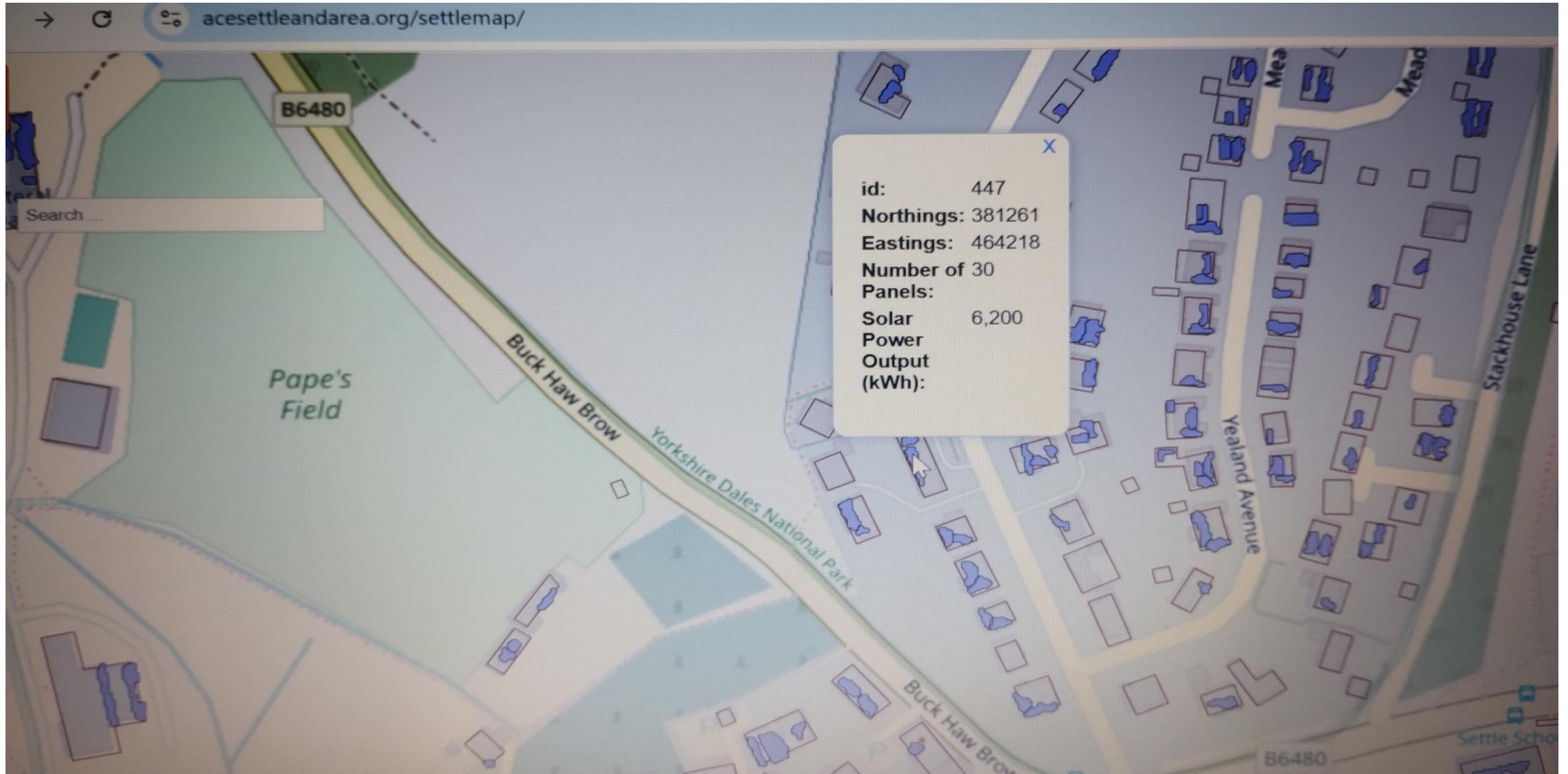


Local Generation and Storage

- **Wind** – intermittent
- **Solar** – seasonal (summer) and intermittent
- **Hydro** – seasonal (winter) and intermittent
- **Battery** – constant
- **Hydro/Solar/Wind/Battery** – effective balance?

PV - Roof Top Solar Survey



Solar - Domestic



Solar - Commercial



Example House Set Up with 5kw battery and 2 people

Grid Supply – 2,600 KWHr/yr
7 hr night rate 17 hr daytime rate
2,600KWHr/yr - 93% at the low rate
5kW battery system

Elec car 8,500 miles
1,900KWHr/yr

House 600KWHr/Yr

Grid Export
1,500KWHr/yr

Cost – 365 days at 52p/day,
2,418KWHr at 6.7p night and
182KWHr day = £397.05/yr
FIT payment - £120/yr
Net Cost £277.05 inc standing
charge

Settle Hydro

- A community owned (shares) hydro scheme using an Archimedean screw
- Opened in 2010 and has produced 1.34mn KWHr
- Average output over last three years 106,000KWHr
- 10% of electricity goes to Bridge End Mill with balance to the grid
- Income is sale of electricity to the mill, power purchase agreement and a feed in tariff

Settle Hydro



Settle Hydro



Wind – This photo has 3 wind turbines in it



Seasonality - Solar, Hydro and Wind

