

## Working with the DNO's and Capacity Issues



**What problems have you experienced?**

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## Possible problems experienced

- No available capacity
  - High connection costs
  - DNO's difficult to deal with
  - Procedures complicated and hard to follow
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## Understanding What is Causing the Problems

### PROBLEM 1 : Volume of Applications

Gas - housing      £450  
Water - housing    £100 - £1500

**Electricity              FREE**



### PROBLEM 2 : Time Wasters

The number of formal quotes accepted averages 5%    ie 95% of all work is wasted time

The DNO can build their costs (£5,000-£10,000 per scheme) into other quotes

### PROBLEM 3 : Grid Capacity ‘Baggers’

UKPN just written to developers sitting on 1 GB of capacity = 200 solar farms x 5 MW

UKPN recently quoted on 9 GB of battery storage projects (400 schemes)

Acceptance = 5 projects or 1.25 %

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## The Electricity Grid is Constantly in a State of Flux

- this means solutions are being made available

### CASE STUDY 1 : SP ENERGY NETWORKS



- Midlothian Council were unable to obtain grid quotations on three solar farms.
- After some technical solutions and capacity returns, SPEN advised Asset Utilities that connections were available
- New budget applications were made and competitive quotations obtained

### CASE STUDY 2 : SP ENERGY NETWORKS



- SPEN fully support North Ayrshire Councils strategy of reducing fuel poverty with a solar PV programme on their 13,500 domestic roofs
  - SPEN have put together a dedicated team to deal with enquiry and designed a new application process to maximise benefits to the Council
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### CASE STUDY 3 : Western Power Distribution

- Warwickshire County Council accepted formal grid offers for six solar PV farms in September 2015 knowing that due to embargos that the schemes could not be developed until Summer 2018.
- Western Power have recently solved the technical and capacity issues and four of these projects can proceed immediately

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### CASE STUDY 4 : UK Power Networks

- London Borough of Havering Council received formal applications on solar PV farms that they wished to develop.
- The payment terms offered by UKPN were such that they made the schemes too financially onerous
- UKPN were re-approached and offered more acceptable terms

## Local Authorities are VERY Important

### Applicants – “who are ya?”

DNO treats (correctly) private developers and Local Authorities the same.

No preferential treatment – just an enquiry number.



### Better to be put on a pedestal

- Have funding
- Renewable Strategy
- In public interest
- Protecting front line services
- Securing jobs

Local Authority



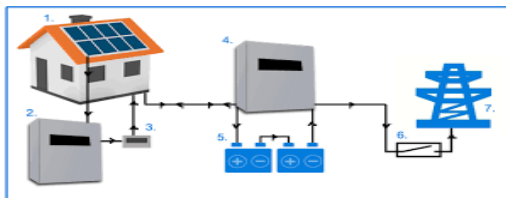


## DNO's – A Proactive Solution

### Stage 1 : Strategy Meeting with DNO

Meet the DNO, explain your plans and treat them as a partner

Battery Storage is a grid advantage and can make a difference to the application



Your Plans



Solar PV farm



Solar PV on Entire Housing Stock



Solar PV on Commercial Buildings

## Stage 2 : Understand Where are the DNO Grid Constraints

### Advantages

- Know which areas can be connected easily
- Know where there are grid connection areas to avoid
- Know which areas can be connected at a later date, once upgrades are complete



Stage 1 : Developable Now

Stage 2 : As there is Less Fuel Poverty

Stage 3 : Grid issues until 2018

### Result

The Local Authority has a staged development plan agreed with the DNO.

## Key Considerations

- Work with the DNO as a partner
  - DNO's are fully supportive of municipal energy, are good people to work with, who want to assist with your renewable projects
  - Local Authorities should be put on a pedestal
  - There is limited capacity in the grid, so secure connections early
  - Capacity is regularly being handed back to the DNO's making connections more doable
  - Historically 5% of formal quotes are accepted
  - First come first served (Interactive) for grid connections
  - A formal quote only guarantees the grid capacity if it is accepted
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Thank you for your time

.....and any questions

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