What improvements have been made in the.....

Application Process





DG Forum 12th Nov 2012

Overview

- Communication with MCC connections team Recommended approach
- Application process for G83 & G59 connections
- Transmission constraints
- What improvements have been made since the last DG Forum?



Communication with MCC

- North Microgen

- < 50kW's connections
- Application enquiries
- On-going application enquiries
- Budget Estimates / Feasibility Studies
- Quote acceptances
- Contact us:
- north.microgen@sse.com or 0845 0724318
- Key contact James Robson



G83/1 - Stage 1

Types of Generation

- Photo-Voltaic
- Micro Hydro
- Domestic Combined Heat and Power
- Fuel Cells
- Micro Wind
- The export across all generating units is up to and including 16A (3.7kW) per phase
- Connecting onto our low voltage network, which is 230V single phase, 400V three phase or 460V split phase
- G83/1 Stage 2, If you're connecting more than one generator at a property or in a close geographic region(your full post code area), where all generators are individually G83/1 Stage 1 compliant, this is classed as a G83/1 Stage 2 connection. Your installer will need to submit an application form to allow us to study any network issues as a result of your proposed installation.



G59/2 – Micro-generator

A generating system up to and including 50kW's but not covered under G83

An application needs to be made by supplying the below information:

- Completed Appendix 2 specific to your connection type
- Site plan at an appropriate scale to indicate the site boundary, the layout of buildings and the meter positions and generation position
- Single Line Diagram (SLD); (Schematic)
- Invertor Test Type Certificate

Upon receipt of your application, we will process it and give you a job reference number. We will then provide you with a quote within 45-65 Working Days



DG Forum 12th Nov 2012

- Communication with MCC
- Major Connections
- Export of 50kW's >
- Application enquiries
- On-going application enquiries
- Budget Estimates / Feasibility Studies
- Other general enquiries
- Contact us:
- mcc@sse.com or 0845 0724319
- Key contact Clare Murphy



Application types

- Budget Estimate
- Feasibility Study
- Formal Quote



Budget Estimate

If you are unable to make a formal Application because certain information that we require to make a Connection Offer is not available, or if you are not in a position to progress to the construction phase, we can provide an indication of the connection charge in a Budget Estimate.

We will not carry out any detailed design work and the assessment will be carried out as a desk top exercise. Any estimate that we provide at this stage will be the result of a preliminary assessment only and possibly without any site specific considerations being taken into account.

The fee to provide a Budget Estimate will be agreed and paid in advance by the applicant and will reflect our assessment of the work involved.

Budget estimates do not usually include Network Studies, or a range of capacities. These requests may be considered, but will increase our study time and response time, in addition to the cost.

Minimum information required;

- Location Map (displaying proposed connection point and Grid Reference)
- Nominated party's name and address for response.
- Load expected (kW) and details on any disruptive load, e.g. motors, welders etc
- Type of Generation (Wind, Hydro etc) and Manufacturer (if known)



Feasibility Study

We will undertake this study at your request, generally for more complex connections where you need to consider a number of options. We will carry out studies for each connection and provide estimated costs for each option, as appropriate.

The cost and complexity of Feasibility Studies are unique to each project. A fee will be agreed and paid in advance by the applicant.

This option may be useful to determine the viability of a proposed project in advance of finalising your proposal.

A Feasibility Study will accurately reflect all aspects of our network at the time the study was compiled. Due to the fast moving nature of Generation applications, our network backgrounds are constantly changing therefore, no guarantee of generation capacity can be given. Only a formal connection offer reserves generation capacity for a limited time.

Minimum information required;

- Location Map (displaying proposed connection point and Grid Reference)
- Nominated party's name and address for response.
- Load expected (kW) and details on any disruptive load, e.g. motors, welders etc
- Range of Generation capacity required (kW MW), Type of Generation (Wind, Hydro etc)
- and Manufacturer (if known



Formal Quote

Minimum information required;

- Completed Application Form specific to your connection type;
- Location Map (Details of site boundary/ land ownership, proposed connection point and
- Grid Reference);
- Details of proposed site of any substation and access roads;
- Planning approval date or expected date, where applicable;
- If you are not the owner or occupier of the land we will need a signed letter of authority
- from the landowner;
- Single Line Diagram (SLD);
- Proposed Connection date;
- Nominated party's name and address for response;
- Name and Address for invoicing;
- If a registered company please provide company registration number, registered office
- address & full company name
- · Load expected (kW) and details on any disruptive load, e.g. motors, welders etc for
- demand connections; or

Power Distribution

Formal Quote

Points of interest;

- No upfront cost to the customer
- Guaranteed Standard time-scale (45 65 Working Days)
- 30 day quote validity period
- Quote will be broken down into Contestable / Non-contestable works required
- Quotes of £100k+ will be offered a payment schedule as standard. Quotes under £100k+ can be offered a payment schedule upon request from the customer
- The customer will be asked to meet other conditions as detailed in the contract, particularly regarding milestone dates to be achieved to meet the connection date
- At quote issue, you will be appointed a Contract Manager
- Your quote will (typically) be for the Distribution works required to facilitate the connection.
 However, we will also need to consider what impact your connection will have on the
 Transmission network. This will be detailed in your quote.. More on Transmission
 constraints later!



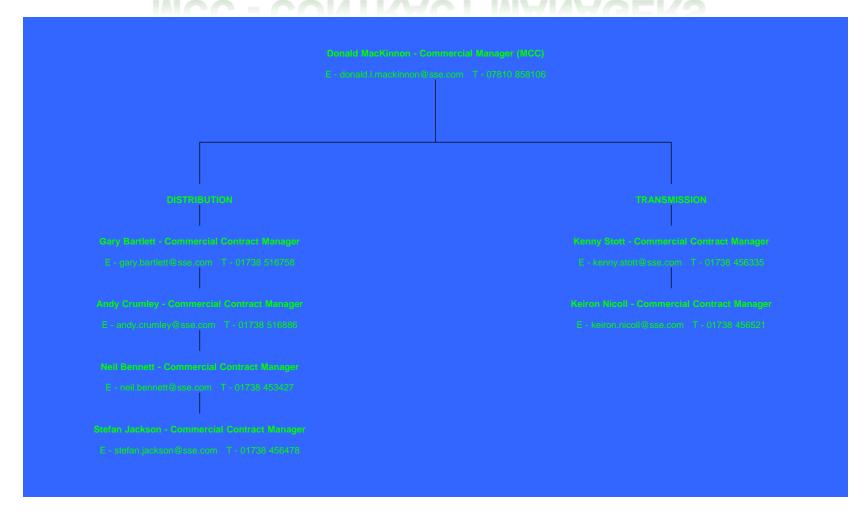
Communication with MCC

- Contract Managers

- Contract Managers
- To discuss the Offer you've received
- Meeting up to discuss your projects progression (Face2face and Telephone)
- Any Commercial/Contractual queries
- To discuss the Budget/Feasibility you've received and discuss your options going forward
- Statement of Works
- Contact us:
- commercial.contracts@sse.com or individually as follows



MCC - CONTRACT MANAGERS





Transmission

In the North of Scotland, Scottish Hydro Electric Transmission Limited(SHETL) own the Transmission network. The Transmission network is the 132kV and 275kV voltage levels.

On the map you have been given, we have shown the network at

- 275kV Red
- 132kV Blue
- 33kV Green Distribution

SHETL have forecast an investment of £4 Billion towards transmission reinforcements, known as Transmission Owner Reinforcement Instructions (TORI's)



Transmission Owner Reinforcement Instructions (TORI's) - Examples

Beauly - Denny (TORI - 002)

Replace the existing Beauly / Fort Augustus / Fasnakyle / Errochty / Braco / Bonnybridge 132 kV double circuit line with 400 kV construction. Operate one circuit at 400 kV. Operate the other circuit at 275 kV. Modify the existing substation arrangements at Beauly, Fasnakyle, Fort Augustus, Errochty and Braco to interface with the new line operating voltages.

Kintyre Reinforcement & Crossaig/Hunterston Subsea Cables

Establish a new 132 kV substation at Crossaig in Kintyre with reactive compensation equipment. Connect in the existing 132 kV double circuit line to Port Ann, with Quadrature Booster transformers in circuit at Crossaig. Rebuild and connect in the existing 132 kV double circuit line to Carradale. Establish two 240MVA subsea cable circuits (or three 120MVA cable circuits) between the new substation at Crossaig and the existing 132 kV bus bar at Hunterston (SPT will make this connection and provide any necessary infrastructure at Hunterston).

Available on NG web-site – 7 year statement



What does this mean to your grid connection?

For connections over 1MW;

You will need to go through the formal Statement of Works process with National Grid. The application fee for a Request for a Statement of Works is £500 plus VAT which is payable in advance.

In response, and within 28 days, NGET is required to provide a Statement of Works. Should NGET confirm that transmission works are required, confirmation of the Applicant's decision to progress their project will then be required within 90 days with a further payment of £1,000 plus VAT. Following this confirmation, NGET then has a further 90 days to provide detailed information, including timescales, on the required transmission works. Further information on the Statement of Works process is set out in the CUSC, Section 6, Clause 6.5.5.

For connections under 1MW(but over 50kW's);

Prior to issuing you with the distribution quote, we will make an assessment of the Grid Supply Point (GSP) and see whether the Transmission network you will be connecting onto is either Constrained or Unconstrained.

•If the Transmission network is deemed as Unconstrained, we will provide you with an unconditional distribution quote.

•If the Transmission network is deemed as Constrained, we will provide you with a conditional distribution quote – advising that your connection is subject to a Transmission Assessment.

The Transmission Assessment is a policy which is, in essence, very similar to the Statement of Works process - just without involving National Grid - and really gives the same outcome as the Statement of Works would if it were to be carried out.

The Transmission Assessment involves SHEPD speaking to SHETL and assessing what impact the <1MW connection would have on the Transmission network. The outcome will ultimately be either:

- A No impact, the connection can go ahead on the basis of the Distribution works date or
- B The Transmission network is too constrained and the connection will need to wait behind the following enabling transmission works...... to be completed by etc



Improvements since the last DG forum.....

- £10k deposit if we can't give firm connection date, or if date is more than 2 years away
- Extension and Re-validation of Offers
- Additional Resources and dedicated "zonal" contract managers (with technical background)
- Budget Calls if the cost exceeds the "tipping point" given by the customer
- Phone Call at Offer Stage to explain the Offer in detail (Started Oct 12)
- New Streamlined Offer with Cost Breakdown as standard (Starting Nov 12)
- Competency Checker to improve application process and Application team moved to Customer Service focussed Engineering team.
- Website has been re-built and has significantly improved (including online applications and headroom available)









The End

