

**Response to Consultation on:
R110-T1: Initial Proposals for National Grid Electricity Transmission and
National Grid Gas –Overview. Ref No 104/12**

Being a consumer of electricity and a chartered engineer I am like yourselves and all other consumers interested in ensuring that we get value for money in investments in electrical infrastructure and limit the damage done by National Grid to the environment. I am therefore grateful for the opportunity given by yourselves to comment on National Grid's plans for investment.

Despite the wealth of documents available for the consultation it is quite difficult to get to the detail of the investment being proposed but in the National Grid document R110-T1 Load Related Detailed Plan there is in paragraph 92 a reference and link to an ENSG document: Our Electricity Transmission Network: A Vision for 2020 published in Feb 2012 and numbered URN11D/955.

The document gives a good summary of the investment required and in Table 2 on page 36 the investment costs against the output of electricity 'picked up' can be gleaned. The ratio of GW per £Bn spent that can be worked out from the table are in descending order of benefit as follows : London 16.5, East Coast & E/A 13.67, South West 13.3, Scotland 4.08, North Wales 3.39, Mid Wales 1.8, and Scotland / England interconnector 0.3. The last scheme is as is spelt out on page 12 necessary to bring electricity from Scotland to England but it can connect up to some suppliers on the way. Therefore although its ratio is poor it is still needed for the S/E transfer.

The Mid Wales scheme is to connect up on-shore wind only and the capacity in the chart of 360 MW means that with the Wales average load factor of 26% over the last 5 years this will only yield an average 93.6 MW for the grid.

What is more in the full report, (URN11D/954) on page 32, it says that based on recent experience during the previous two winters wind generation is de-rated to 5% of nameplate capacity for security of supply purposes. Therefore on this criteria this connection is 'worth' 18 MW.

Considering that this Mid Wales scheme represents such incredibly 'poor value for money', will cause immense damage to an exceptional and fragile environment in Mid Wales, and connections could be undertaken in a much more sympathetic way, I hope that you will consider removing this scheme from the investment programme.

Thank You

B.A.Kibble C.Eng.