North Wales Wind Farm Connection

Deadline 11 Representation
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The Heavy Duty Wooden Pole solution proposed by SP Manweb is not needed and should be replaced by undergrounding or by a Trident solution. SP Manweb always refers to the HDWP's twin pole nature totally playing down its primary structural feature of a massive steel superstructure.

1) Earthing. The revelation (see for example SP Manweb's Response to Post Hearing Submission from Interested Parties submitted at Deadline 10) that RWE is to provide its own 33kV to 132kV substation and yet earth it locally within Clocaenog shows that SP Manweb could do the same or similar. In fact SPM could probably piggy-back onto RWE's earthing system (and onto the second wind farms system if need be). Thus the earth wire on the HDWP is technically unneccessary. Until SP Manweb provides fully independent evidence that their earthing scheme is the only one suitable, it should not be accepted.

2) Power Capacity. SP Manweb have claimed that the HDWP was necessary to carry the full load of the wind farms. Now that 2 have dropped out, they confirm that the requirement has dropped from 176MW to 124MW. However, they still persist in claiming that the lighter 200mm Poplar connector is not adequate and thus the heavier 300mm Upas is needed. To do this they firstly ingeniously quote only summer ratings of the connectors and secondly conveniently forget that their Upas solution, based on summer ratings, is incapable of carrying the 176MW of the original wind farm complex. Thus they state that Poplar and Upas have summer ratings of 123MVA (116MW) and 176MVA (167 MW) respectively. Thus both have around 9.5% less capacity than the 2/4 wind farms cases. Now tables of technical properties of connectors come with summer ratings, spring/autumn ratings and with winter ratings, with spring/autumn being around 10-15% and winter around 20-25% higher than summer ratings. Here is the headroom for the windfarms to produce at maximun output. The further argument from SPM that "one of the developers is seeking to utilise its full consented capacity of 96MVA" (instead of 80MVA) is spurious as with the original 4 windfarms, and a 300 mm Upas connection all of this 16MVA load increase would have been above the nominal "summer ratings" of Upas.

Thus we have demonstrated that a Trident type OHL solution is feasible and of course would meet SP Manwebs legal obligations to connect the consented windfarms. The switch from HDWP to Trident would be technically simple and change very little in the implementation of the scheme, other than the earthing at Clocaenog.