

This is a personal submission regarding this proposal. I have relevant experience as below:

- (i) Managed various power stations within the chemical industry,
- (ii) Led the development of a joint venture to build a new Combined Cycle Gas Fired facility to meet the needs of chemical plants in a Combined Heat and Power (CHP) configuration.
- (iii) Chaired the campaign group WRAPS that opposed the earlier proposal by this developer for a significantly larger scheme at 1200MW plus overhead 400kV electrical connection.

The submission is personal rather than as chair of WRAPs because within the local residents who are members of, or supporters of WRAPs there are now 2 groups of people.

- (i) People who are satisfied that this revised 299MW development no longer poses a threat to them, their families or property now that the earlier need for a new 400kV grid connection has been replaced by what is stated by both Wrexham Power (WPL) on their website and by Scottish Power (SP) in a submission to the Planning Inspectorate (PI) that the required 132kV connection will be underground.
- (ii) Other residents predominantly living close to the development itself whose concerns have consistently been wider than the electrical connection.

My own comment and concerns regarding the 299MW proposal.

**(i) the developers possible intentions and capabilities, based on knowledge gained from their earlier proposal.**

The developers Glenfinnan and St Modwen promoting the concept of a Wrexham Energy Centre, are fundamentally property developers with a SIC (Standard Industrial Classification) of "Buying And Selling Of Own Real Estate". This can be seen from the directorships the individuals hold and other companies they are associated with. Glenfinnan a company based in Bermuda is an investment vehicle.

This proposal has come forward because it is an opportunity to add value through obtaining planning consent rather than to meet a national or local need. In itself not a reason to dismiss an application but it provides context.

The original 1200MW proposal was supported by many of the arguments that accompany this application.

The revision to a 299MW proposal has, in part, come about because WRAPS was able to demonstrate that many of the benefits claimed by the earlier scheme could not in fact be delivered, that the larger scheme was inappropriate for this part of the UK as well as harming those areas affected by the development.

To the credit of the developers the 1200MW scheme was dropped and the 299MW scheme put forward. The fact that the electrical connection will be at 132kV will give the prospect of a more robust electrical supply on the industrial estate, something the earlier proposal could not do. This had not been evident to the developers or Wrexham County Borough Council as neither understood the local 132kV distribution system.

With that background it is inevitable that doubts exist as to what else WPL have stated that may not be valid or perhaps exaggerated. If the motivation is to secure greatest value from this opportunity there are concerns that this development could be a precursor to a larger facility or that the site identified previously for a 1200MW scheme may have any unused portion of land left fallow or utilised for some other, possibly unwelcome purpose. It would be my recommendation that should consent be granted that it should be conditional on any unused land being landscaped

in order to enhance the visual aspect from the B5130 and Isycoed with the standard of landscaping used by JCB, also on the industrial estate, being the minimum required standard. It should also be clear that consent precludes any future additional industrial activity on the site or expansion beyond the 299MW.

**(ii) the need, if any, for additional generation in this part of the UK and consequential adverse impact on the environment and landscape together with increased losses in transmission of electricity to areas of the UK that are net importers of electrical energy.**

In the absence of what should be a national strategy for energy, such as:

- The level of generation required to meet future needs
- The range, scale and mix of fuels and renewables.
- The optimal location for power generation in order to minimise transmission losses and visual blight from power lines.

What has resulted is for developers to seek opportunities where consent is likely to be granted regardless of need or impact. In an area where there is excess capacity, such as the North West of the UK already with constraints on the electrical infrastructure, additional generation results in additional cost and transmission losses to the point of use. Ultimately this is bad for the consumer, the environment, and adds to the visual blight of transmission lines. Such factors should be considered early in the vetting of new proposals. In so far as a 299MW scheme connected to a 132kV electrical network within and shared by an industrial estate will reduce transmission losses and aid supply security this development is more credible compared with the earlier 1200MW proposal.

**(iii) the potential benefit of a CHP based scheme, and whether this development is sincere in its CHP objectives or will deny any subsequent and genuine CHP proposal.**

CCGT power stations such as proposed can achieve efficiencies of circa 60%. A genuine CHP configuration can achieve 90%. Fossil fuels have limited availability, burning them has an adverse environmental impact.

New power stations located within an industrial estate containing businesses with a significant heat load should be required to be CHP with a minimum efficiency closer to 90% than 60%.

Developers will resist this citing economic and technical issues, to concede to those protests may deny subsequent CHP proposals as gas and electrical capacity is used up. This proposal by WPL could have provided inexpensive heat to the new prison as well as a number of businesses on the estate, enhancing economic viability of those businesses, lowering operating costs for the prison and having a positive effect on the environment. The desire for brevity denies me further elaboration but I would urge that should consent be granted it is with a requirement to put in place significant, rather than token, infrastructure with contracts that enable waste heat to be utilised rather than discarded through cooling towers.

**(iv) the chosen location within the industrial estate and the adverse impact on Isycoed residents when better sites exist on the industrial estate.**

The site identified is on the East boundary of the industrial estate, on land with historical planning consent for warehousing. The nature of activity within a power station will add to the audible, visual and environmental impact (through stack and cooling towers) in a manner that warehousing would not do. Such a location is suboptimal in achieving any CHP objectives necessitating long runs of pipework. The extent to which the developers have examined alternative sites should be tested, given that the proposed location was selected for a scheme four times larger. If consent is to be granted, significant obligations are necessary for the benefit of neighbouring residents.

**(vi) the concerns expressed by Scottish Power 2 years ago about the capability of their**

**own 132kV system to take 299MW of export. The extent to which that 132kV system may need to be modified if this development was to proceed is of crucial concern to many residents, many of whom are currently content that what has been presented by WPL not Scottish Power to communities and Council is viable.**

Regarding the revised proposals for a 299Mw scheme from WPL, (SP) on 8/5/2014 advised the PI that *"An alternative means of connection could be to connect into the SP Manweb distribution network however contrary to what the promoter notes, this would require significant reinforcement of existing network. Given the very initial level of discussions, the likely design of any reinforcement is very uncertain at this stage. It should be noted that the design options for this connection could also include the construction of new 132kV multiple circuits (**including new overhead lines**) into existing SP Manweb network at Wrexham Grid, approximately directly 5km from the proposed 2 development, and Legacy Supergrid, approximately directly 10km from the proposed development. These options are not regarded as permitted development."* (Note bold highlighting is mine).

The WPL website and SP now state that the electrical connection is to be underground. SP state in their submission to the PI on 31 May 2016: "The Connection Offer proposes that the connection would take the form of 132kV underground cables between the Wrexham Energy Centre and Legacy Grid substation".

It is because of this understanding that the reaction of residents to the East and South of Wrexham to the revised 299MW scheme is different to that previously.

Consent for the electrical connection will be the subject of another process. In the event of any consent for the power station it should be a requirement that the electrical connection to Legacy be by underground cable.

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