Broad Oak Preservation Society

Richborough Connection

Verbal Presentation[1] to Examining Authority's Open Floor Hearing 27.07.16

We trust that your site visits to locations in and around Broad Oak have shown why residents are so concerned about the Richborough Connection scheme as currently proposed by National Grid. The route chose sweeps around the village from the north-east to the south; on the western side of Broad Oak the line would be no more than 350m[2] from the village throughout its length from PC8 to PC4 . In many cases the proximity is much closer. You will have seen yesterday that Nook Farm at the northern tip of the village will be only 160m from pylon PC8. The line is never more that 250m from the rear of homes in Mayton Lane and approaches to within 130m of houses in Shalloak Road on the southern borders of the village. Pylon PC5 is 160m from the entrance to Dengrove Residential Caravan Park, whose residents are exclusively older people. Further south along Shalloak Road the line will be within 100m of land set aside for new housing development in the Canterbury Local Plan. For many residents the new overhead line would become the dominant feature of the scenery and skyline. Forget the niceties of the Holford Rules; is it any wonder that residents feel encircled and oppressed by these proposals?

National Grid will tell you they have consulted fully with local communities about their proposals; we think this has been a consultation in name only. For a consultation on a development proposal to be meaningful there has to be a willingness on the part of the proposers to adapt and modify their proposals to meet the legitimate concerns of those who are affected. We feel this flexibility has been wholly lacking throughout the various stages of consultation. The volumes of studies and the material presented at public meetings appear to have been carefully crafted to lead to one conclusion, the scheme which is now being examined. Where there were apparent choices, the factors used to distinguish one option from another have been subjectively given high consideration if they support the outcome required and low consideration if they do not.

The question of undergrounding the connection is an example of where we feel the consultation was manipulated. At the first round of consultation exhibitions National Grid stressed they were only consulting on the broad outline of the route, the choice between the North Corridor option and the South Corridor option. When we asked questions about the technology to be adopted – overhead line or underground cable – it was said this was a matter for consideration at the next

1 The verbal presentation has been augmented with references showing sources of information and illustrations of certain key factors

2 All proximity measurements have been taken from a full size paper copy of APP-018 (EN020017-000306-4.6 Work Plans) provided by the Applicant.

stage of consultation. Information was presented covering all possibilities – traditional steel lattice pylons, more modern and shorter concrete pylons, and underground cables. There were models and diagrams showing how underground cables would be installed. When it came to the second round of consultation, we were presented with a fait accompli; National Grid had decided on a detailed route in the North Corridor and on the use of lattice pylons. Nothing which has been said to them since has brought about any modification of their proposals.

One factor presented by National Grid in support of their choice of the North Corridor was the potential to remove the existing 132kV overhead line running from Canterbury to supply power to Thanet – what now features in the proposals before you as the PX line. The new 400kV overhead line would follow the route of this line which has been in place for many years. The removal of the 25m pylons carrying this line and their replacement by 50m pylons was presented as an improvement to the landscape. What had not been considered was that the PX would become redundant once a new 400kV connection to Richborough existed. National Grid themselves said that the choice between the Northern and Southern Corridors was finely balanced. It is our contention that removal of the PX line should have been discounted in determining this choice. Had it been excluded the balance of other factors may well have indicated that the Southern Corridor was a better option. It was shorter and therefore less costly, and it would have avoided conflicts with the Canterbury Local Plan and the South East Water reservoir proposals.

We would ask the Examining Panel to consider a number of alternatives to the current National Grid proposals. Firstly there is the question of why the Nemo Link is terminating at Richborough. There was an early study which purported to look at a wide range of different landfall sites. One by one these were eliminated, either because they did not have a direct connection to the 400kV network, or where such a connection was available, there was no land on which the converter station and other terminal equipment could be erected. Richborough was selected because it was a former power station which just happened to be in the ownership of National Grid. Richborough too did not have a 400kV network connection, but that was set aside for later consideration. That is why we say there has never been proper consideration of the Nemo scheme end to end, and splitting it into two parts is an abuse of the planning system. It is clear from the Nemo Link website that at the Belgian end there is a 9km underground cable linking Nemo to the Belgian transmission system which is accepted to be part of the Nemo Link project. The same approach should have been adopted at the UK end.

National Grid seek to justify their actions by saying that Nemo is not a nationally significant infrastructure project. This is understandable as at best it will offer something like a 1.3% increase in UK electricity provision. The Applicant also agrees in answer to one of the written questions that the Richborough Connection

has just one sole purpose, to link Nemo to the 400kV grid; if Nemo was not happening there would be no requirement for the Richborough Connection. We therefore find it difficult to understand why the Richborough Connection is considered to be a nationally significant infrastructure project.

When asked to explain the choice of Richborough for the Nemo converter station, the Applicant claims that they were not involved and that the question should be directed to NGNLL who are 50% partners in the development of the Nemo Link. This is disingenuous. NGNLL is not a separate legal entity as the Applicant claims; it is National Grid (Nemo Link) Ltd a wholly owned subsidiary company of the Applicant or of the Applicant's parent company[3]. In layman's terms it is all National Grid. In newspaper reports[4] of the publication of the most recent Annual Report published a couple of months ago, National Grid are said to have made profits of £4.1billion. A significant part of this profit come from the operation of their existing undersea link to France. National Grid's participation in European connectors is therefore not secret.

There are options for alternative landfall sites which were not available when the original studies were carried out in 2008. Since then two old coal fired power stations on the Isle of Grain have closed down. Both are on the shore line and both have 400Kv grid access. We believe that even at this late stage National Grid should amend its plans and take the Nemo Link to one of these locations.

If Nemo is to come ashore at Richborough, there is a further alternative which National Grid have not evaluated, and that is a high voltage DC underground cable – effectively a continuation of the undersea cable. This would run by the most convenient and direct route to the Canterbury North sub-station site where the converter station would be sited. This is the solution adopted by National Grid for the Western Link[5] bringing power from Scotland to England. This makes landfall at the tip of the Wirral peninsular and then runs underground to the converter station at Flint Bridge in Cheshire. This scheme has twice the power capacity of the Nemo Link, so there is no technical reason why it could be adopted for East Kent Alternatives to the whole Richborough Connection.

Finally I would like to mention our proposals to solve the issues around just Broad Oak if an overhead line from Richborough is still considered the best option for the remainder of the route. That would be to have the last three kilometres run underground from somewhere near pylon PC13 all the way into Canterbury. In the their answer to Q.1.7.45 National Grid concedes that undergrounding this stretch would have an overall positive effect on the landscape around Broad Oak. But they then go on to dismiss the idea for what we consider specious reasons. They say undergrounding would require the removal of hedgerows and trees, leaving

3 Please see: http://www.nemo-link.com/home/project-partners/
4 Please refer to Annex 1
5 Please refer to: http://www.westernhvdclink.co.uk/

visible effects to the landscape. That may be the case if the line is not carefully planned, but such outcomes would only be at ground level, not 50m tall to be seen from every direction. They say that undergrounding would result in the loss of ancient woodland at Lynne Wood[6]. What they do not say is that an overhead line would have equally devastating effects on the ancient woodland. An overhead line requires an even wider swathe of land to be cleared underneath the conductors. Underground lines also have other advantages[7]. They:

- have lower transmission losses;
- have lower maintenance costs;
- emit no electric field and can be engineered to emit a lower magnetic field than an overhead line;
- require a narrower band of land to install, and;
- are less susceptible to the impacts of severe weather.

A further argument put forward against undergrounding is the provision of a transition compound. National Grid paint a scary picture of a site the size of a football field being required for tension gantries. While we accept that one compound would be required, we do not think it would be so large.[8] If located near PC13 it would be in a location remote from any housing and could easily be screened by planting. In our thinking one of the advantages of running underground is that the cable need not follow the exact line proposed for the overhead line. It could follow a more circuitous route to avoid woodland and making use of field margins to minimise the effects on agriculture. Because it would be out of sight it could actually come closer to the houses in Broad Oak avoiding conflict with the reservoir scheme and the agricultural activities at Goose Farm.

The Applicant's standard response to all proposals for undergrounding has been that the initial cost is greater, and that this cost has to be borne by electricity consumers. The duty of National Grid to provide an economic transmission system means they have to adopt the cheapest solution possible.

If, and we think it is a big if, if the cost of the Richborough Connection is rightly imposed on electricity consumers, we made an estimate of the impact of the additional cost of undergrounding the last 3km of the route falling on consumers of 18p per year. This estimate was included in our response to the second round of National Grid Consultation, which the Examining Panel have clearly read. Question 1.7.37of your first written questions asked the Applicant to provide a response to our estimate. In our view the Applicant has failed to answer this

6 Please refer to Annex 2:
7 Please refer to: http://help.leonardo-energy.org/hc/en-us/articles/202706932-What-are-the-main-benefits-of-underground-cables-
8 Please refer to Annex 3

question, merely repeating their claim that the costs will ultimately be reflected in consumers bills.

There is another way of approaching the question of the additional costs of undergrounding. As we all know, the standard unit of electricity for which we are all charged is the kilowatt-hour (kWh). The average domestic cost per kWh is currently around 15p. Published statistics[9] show that total electricity generation in the UK in 2014 was 335 terawatt-hours – that is 355 thousand million kWh. We now think our original estimate for the additional costs of undergrounding was too high. If, for the sake of argument we now estimate these at £30million (£10m per kilometre for the last three kilometres), and this sum was to be recovered from consumers in just one year – rather then being amortised over a number of years – then the price of one unit of electricity would rise by .009p, less than one hundredth of a penny.

But we suggest that the cost of the Richborough Connection should not be imposed on consumers. The investment in the Nemo undersea connector is of no value unless the power it transports can be delivered into the national extra high voltage transmission system. Ending at Richborough the connector cannot earn its sponsors any revenue – they need the Richborough Connection for that purpose. Therefore the cost of providing that link is rightly part of the cost of installing a viable link between the transmission systems of the UK and Belgium. By off-loading the cost of the Richborough Connection onto the shoulders of electricity consumers, National Grid seeks to give the sponsors of Nemo, of which it is one, an unfair advantage over other electricity generators and suppliers. For example, developers of land based solar arrays (solar farms) have to fund the full cost of their schemes connecting into the grid.

In conclusion we ask you reject the Development Consent Order as currently proposed. National Grid would then have the option of exploring the use of the Isle of Grain power station sites or return with a modified DCO application incorporating underground cable for either whole or the last three km of the Richborough Connection.

Alan Holden
Chairman
Broad Oak Preservation Society

9 UK Energy Statistics, 2014 & Q4 2014, published by the Dept of Energy & Climate Change March 2015

Annex One

National Grid's cut-price power from France yields £4bn gain

By Emily Gosden

PROFITS at National Grid rose 6pc to £4.1bn last year as the company benefited from Britain importing cheaper power from France.

The utility giant, which manages Britain's gas and electricity networks, said that a "strong performance" from the French interconnector cable contributed to the rise in group adjusted operating profits, which was in line with analysts' expectations.

Operating profits from its 2 gigawatt undersea power cable rose 19pc to £123m, as the "high power price differential between France and the UK in the first half of the year" meant companies were willing to pay higher fees to use the interconnector to buy cheap power from France.

Profits from the UK electricity transmission business fell by 5pc but gas transmission and distribution profits were up by 11pc and 6pc respectively.

On a pre-tax basis, after finance costs and exceptional items, National Grid profits rose 15pc to £3bn in the year to March.

National Grid's role balancing UK supply and demand has become increasingly high profile as power plants close, raising fears of a supply crunch this winter.

John Pettigrew, National Grid chief executive, said the outlook was looking "tight but manageable" and he expected supply margins to be similar to the level last winter.

National Grid's regulated UK networks businesses continued to report a return on equity significantly above the "base" levels allowed by Ofgem when it set their price controls.

UK electricity transmission made a 13.9pc return on equity, compared with 10.2pc set by Ofgem. National Grid spent £1.3bn in the division, compared with the £1.5bn it had been allowed by Ofgem, and expects to get to keep £92m of the "efficiency saving".

Gas distribution expenditure was £900m compared with an allowance of £1bn, with National Grid expected to keep £56m of the saving.

Critics in the industry have questioned whether National Grid was handed an unduly generous settlement by Ofgem. However, Mr Pettigrew denied the goals Ofgem had set it were easy to hit, saying that National Grid was innovating in order to make the efficiency savings. A share of the savings will also be passed back to customers.

The company said the planned sale of a majority stake in the gas distribution business was on track for completion in early 2017.

Shares in National Grid ended down 2.9pc at 970.6p.

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Profit surge: the utility giant National Grid has benefited from importing cheaper power from France

This article appeared in the Daily Telegraph 20th May 2016

Annex Two

This picture shows a 400kV OHL passing
through Clowes Wood north of Canterbury

Annex Three

The image above shows a transition from OHL to underground cable at Folly Farm on the outskirts of Canterbury. This forms part of the PX 132kV line. The image below shows a transition on an EHV transmission line in the Netherlands. We accept that something larger in area may be required on the Richborough Connection, with security fencing and other safety features. However being at ground level these features can easily be screened by suitable planting.