WRITTEN REPRESENTATION FOR SPR EA1N and EA2 PROJECTS (DEADLINE 1)

ROCHDALE ENVELOPE AND SUBSTATION DESIGN

Interested Party: SASES **PINS Refs:** 20024106 & 20024110

Date: 2 November 2020 **Issue:** 3

Introduction

1. The authorised development in Part 1 of Schedule 1 of the DCO does not fix parameters for either the Applicant's substations or the National Grid substation, describing the works merely as "a new onshore substation at Grove Wood, Friston" and, under the National Grid NSIP, "a new national grid substation to the north west" of the project substation. Article 2 defines the substations by reference to their component parts, not their scale. The parameters are only set to the extent provided for in the Requirements.

2. The DCO requires the certification of the "outline onshore substation design principles statement" and Requirement 12 requires submission of detailed design to accord with those principles but only in respect of the Applicant's substations, not the remainder of the Applicant's infrastructure and not at all in respect of the National Grid substation and related infrastructure. Requirements 12(3), (5), (7) and (9) also set certain broad limitations on scale in respect of the height of the substations and the fenced compound areas of the substations.

3. As framed, the DCOs would give unnecessary and excessive flexibility to the Applicant to develop the substations site. Further the design of the substations and related infrastructure would not be sufficiently or appropriately controlled. The consequence is that significant environmental harm will be caused which in part could be avoided or reduced by imposing further constraints in the DCO and on the way in which the design of the substations and related infrastructure is controlled post-consent.

The Rochdale Envelope

4. The Applicant has taken a "Rochdale Envelope" approach by setting broad parameters for the substations and related infrastructure. Whilst the principle of this approach is recognised for the purposes of environmental assessment, there is a risk that it can lead to an approach which fails to ensure good design which minimises adverse impacts. The parameters as set in the DCO are excessive and not justified. As further explained in Appendix 2, the size parameters and in particular the proposed height of the substations could be significantly reduced. In the case of the Applicant's substations, Requirement 12(3)(a) sets a maximum

building height of 15m and a maximum height for external electrical equipment of 18m. This is unjustified when compared to other examples of similar substations.

5. In respect of the National Grid substation, the parameters in Requirements 12(7) and 12(9) vary significantly depending on whether AIS or GIS technology is used. Thus the AIS substation would be up to 6m in height with a compound area of up to 44,950 sq m, but the GIS substation would be up to 16m in height with a compound area of up to 16,800 sq m. There is no proper basis for seeking such great flexibility, and an election could be made between the two alternatives at this stage.

6. A further difficulty which arises from the setting of such broad parameters in the Rochdale Envelope is that the DCO authorises the acquisition of land for the greatest extent of the parameters. Accordingly, the land will be controlled by the Applicant and could be put to use for the project and for the National Grid NSIP. Further, by Article 33, the land will be "operational land" for the purposes of the relevant electricity undertakings. The consequence is that the land would attract permitted development rights under Class B Part 15 of Schedule 2 to the Town and Country Planning (General Permitted Development) Order 2015 which could permit further extensive development within the land identified for development.

7. For those reasons, the Applicant should justify the very significant extent of the parameters set in Requirement 12 in respect of both the height and the area of the substation complexes. It does not appear that they can be justified. Permitted development rights should be restricted to ensure that the excessive envelope set by the Applicant does not pave the way for other significant development to come forward without detailed planning approval.

Downsizing

8. Related to the parameters for the substation is the risk that the projects will be downsized in respect of their generating capacity. In this context it should be noted that the draft DCOs provide for generation capacity to be as low as 100 MW – see definition of Work No. 1 in Schedule 1. As explained in Appendix 1, a number of offshore windfarm projects have been materially downsized post consent. However, because of the parameters within the DCO, those changes have not been the subject of any approval. One difficulty which flows from that is the full extent of the parameters for development (e.g. at the substations, but not confined to them) can still be built out, despite the fact that (a) those parameters may no longer be justified and (b) the benefits which are said to outweigh the harm are much reduced. The Applicant should be constrained to deliver a project within a more limited range of output, so that an application for a change to the project would be required if the proposed capacity were to be materially reduced. This would allow matters such as the permitted scale of the onshore development to be considered, rather than permitting the unilateral reduction in the output of the proposal without any constraint on the proposed development.

Substation design

9. Substation design is subject to detailed approval under Requirement 12. The approval for the Applicant's substations must be in accordance with the "outline onshore substation design principles statement". However, those principles are extremely broad in nature and add very little and do not extend to the entirety of the Applicant's infrastructure at the substation site. Given the wide parameters for the substations (see above), further control is needed to ensure that the proposal which comes forward has the least impact possible in terms of the design of all the infrastructure.

10. The approving authority lacks the expertise to determine whether the best possible proposal has been advanced to minimise the adverse impacts of the proposals. For that reason, the design of the substations and related infrastructure should be the subject of independent design review by industry leading independent power engineering consultants against the strict criterion of achieving the lowest possible landscape and other adverse environmental impacts by the best choice and layout of power equipment. Such independent review could be certified prior to the submission of details for approval, and could be secured through an amendment to the design principles statement, or through the imposition of a new Requirement.

11. Further, there is no justification for excluding the National Grid substation and related infrastructure from the design principles statement. As framed, Requirement 12 does not apply those principles to the National Grid substation and related infrastructure. The same points as above should apply to the National Grid substation and related infrastructure.

12. Design matters are considered further in Appendix 2, below.

Conclusion

13. The multiple adverse effects of the proposal, the sensitivity of the location, and the inadequacy of the mitigation proposals are considered elsewhere. They all point to the need to take a far more thorough approach to the design of all the infrastructure at this stage. The parameters need to be more tightly drawn. The flexibility to downsize the projects without further approval needs to be limited. The design of the substations their related infrastructure needs to be the subject of far better controls including independent design review by industry leading independent power engineering consultants to ensure that the proposed designs are the least harmful achievable.

APPENDIX 1: PROJECT DOWNSIZING

1. Introduction. The frequency with which approved offshore wind farm projects have been downsized relative to their original DCO consent is a matter for severe criticism if the on-shore environmental impact is not commensurately reduced and/or provision made for subsequent project upgrading without fresh on-shore construction.

2. It is requested that if, despite all the community and other objections, the Applicant's projects are to be consented then the DCOs must incorporate wording requiring the Applicant to construct projects which deliver no less than the full power proposed in their application (subject perhaps to a small margin say 5%) and that they shall not be allowed to modify such power limits without consent.

3. Why is downsizing important? This is because DCOs allocate critical land and other resources to the Applicant after full examination of the needs of the project and their impact, environmental and otherwise and also after consideration of the economic, efficiency and coordination aspects of the projects. It obviously follows that if a project is not constructed to its full extent but makes use of all the land and other resources allocated then there must be a loss of economy and efficiency, and if subsequently the 'missing' power is provided by a subsequent project then clearly there is a lack of coordination.

4. Rampion example. A particularly striking example of the impact of downsizing is the Rampion project in West Sussex. This gained approval for the construction of a 20km cable route not just across the South Downs National Park. Post DCO consent it was downsized by 43%, but has nevertheless been constructed using the same cable route and virtually all the allocated substation land near to Bolney NGET substation. Enquiry of the developers has also revealed that the cables etc. used were also downsized to the minimum required for the reduced power, so further development of the Rampion seabed (now under consideration) will require a fresh cable route and a fresh allocation substation land and equipment. This clearly makes no sense and has only arisen because of lack of constraint within the wording of the original approved DCO.

5. The summary below provides information on a number of offshore wind farms in England which have been researched. Where possible the source of key information is given, typically from DCO extracts. The reduced power data is mostly taken from a recent *Renewable Energy Foundation* chart which is appended and is presumed correct.

Project Name	**DCO power approved (up to)**	**Reduced power output (% reduction)**
Galloper (Sizewell)	504 MW	353 MW (- 30%)
Rampion (Brighton)	700 MW	400 MW (- 43%)
Dudgeon (Norfolk?)	560 MW	402 MW (- 28%)
Triton Knoll (Norfolk?)	1,200 MW	900 MW (- 25%)
Walney Extension (Cumbria)	750 MW	659 MW (- 12%)
Greater Gabbard (Sizewell)	500 MW	504 MW (0%)

Data Sources

Galloper Wind Farm Extract from DCO:

"SCHEDULE 1 Article 2
Authorised project
PART 1
Authorised development
1. A nationally significant infrastructure project as defined in sections 14 and 15 of the 2008 Act on the bed of the North Sea approximately 27 kilometres off the coast of Suffolk and partly within the Renewable Energy Zone, comprising—
Work No. 1—
(a) an offshore wind turbine generating station with a gross electrical output capacity of up to **504 MW** comprising up to 140 wind turbine generators each fixed to the seabed by one of four foundation types"

Rampion Wind Farm Extract from DCO:

"SCHEDULE 1 Articles 2 and 3
Authorised project
PART 1
Authorised development
1. A nationally significant infrastructure project as defined in sections 14 and 15 of the 2008 Act on the bed of the English Channel approximately 13 km from the Sussex coast, comprising—
Work No. 1 –
(a) An offshore wind turbine generating station with a gross electrical output capacity of up to **700 MW** comprising up to 175 wind turbine generators each fixed to the seabed by one of six foundation types"

Dudgeon Offshore Wind Farm

" Our ref: 12.04.09.04/227C
DEPARTMENT OF ENERGY AND CLIMATE CHANGE
ELECTRICITY ACT 1989 (Section 36)
CONSTRUCTION AND OPERATION OF A WIND FARM GENERATING STATION KNOWN AS DUDGEON OFF THE COAST OF NORFOLK
1. Pursuant to section 36 of the Electricity Act, the Secretary of State for Energy and Climate Change ("the Secretary of State") hereby consents to the construction and operation by Dudgeon Offshore Wind Limited ("the Company"), on the areas outlined in red on Figures 1 and 2 annexed hereto and duly endorsed on behalf of the Secretary of State, of an offshore wind turbine generating station ("the Development") located approximately 32 kilometres from the coast of Norfolk1.

2. The Development shall comprise:

(a) wind turbine generators of the size and type chosen by the Company

(subject to compliance with any requirements as to their size imposed by or under these conditions);

(b) inter-turbine cabling;
(c) up to 3 offshore sub-stations;
(d) up to 4 meteorological masts; and,
(e) an accommodation platform.
3. The maximum generating capacity of the Development shall not exceed **560MW** at any time."

Further Dudgeon Reference: https://www.statkraft.co.uk/power-generation/offshore-wind/dudgeon/

"Dudgeon Offshore Wind Farm was granted consent in 2012 and will be located 32km (20 miles) off the coast of the seaside town of Cromer in North Norfolk. Its consent allows for up to 560MW of installed electricity generation capacity, however after thorough planning it was decided that the optimal installed capacity will be approximately **400 MW**."

Triton Knoll Wind Farm Extract from DCO:

"SCHEDULE 1 Article 2
Authorised Project
PART 1
Authorised Development
A nationally significant infrastructure project as defined in sections 14 and 15 of the 2008 Act on the bed of the North Sea approximately 33 kilometres off the coast of Lincolnshire and 46 kilometres off the coast of North Norfolk within the Renewable Energy Zone, comprising—
Work No. 1 — an offshore wind turbine generating station with a gross electrical output capacity of up to **1200 MW** comprising up to 288 wind turbine generators each fixed to the seabed by one of five foundation types"

and as amended:

"Amendments to Part 1 (Authorised Development) of Schedule 1 (Authorised Project)
5.—(1) Part 1 (Authorised Development) of Schedule 1 (Authorised Project) is amended as follows.
(2) In the first paragraph of the description of Work No. 1, for "1200 MW" substitute "**900 MW**"

Walney Extension Wind Farm Extract from DCO:

"SCHEDULE 1 Article 3
AUTHORISED PROJECT
PART 1
Authorised Development
1. A nationally significant infrastructure project as defined in sections 14 and 15 of the 2008 Act on the bed of the Irish Sea approximately 19 kilometres off the Isle of Walney coast and partly within the Renewable Energy Zone, comprising—
Work No. 1 –
(a) an offshore wind turbine generating station with a gross electrical output capacity of up to **750MW** comprising up to 207 wind turbine generators with rotating blades, each fixed to the seabed by one of two foundation types,"

dti

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Mr Chris Hill
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WC2E 9BT

19 February 2007

Dear Mr Hill

ELECTRICITY ACT 1989 ("the Act")

APPLICATION FOR CONSENT UNDER SECTION 36 OF THE ACT TO CONSTRUCT AND OPERATE AN OFFSHORE WIND FARM NEAR THE INNER GABBARD AND GALLOPER SANDBANKS IN THE OUTER THAMES

APPLICATION FOR A DECLARATION UNDER SECTION 36A OF THE ACT TO EXTINGUISH PUBLIC RIGHTS OF NAVIGATION SO FAR AS THEY PASS THROUGH THOSE PLACES WITHIN THE UK TERRITORIAL SEA WHERE STRUCTURES FORMING PART OF THE OFFSHORE WIND FARM ARE TO BE LOCATED

1. THE APPLICATION

1.1 I am directed by the Secretary of State for Trade and Industry ("the Secretary of State") to refer to the application submitted on 17 October 2005 ("the Application") by Greater Gabbard Offshore Winds Limited ("the Company"), for the consent of the Secretary of State under section 36 of the Act ("section 36 consent"), to the construction and operation of an offshore wind farm with a generating capacity of up to 500MW, comprising up to 140 wind turbines, located in two neighbouring sites, together with up to four electricity sub-stations and up to six meteorology masts.

Renewable Energy Foundation chart listing actual installed capacities

REF
RENEWABLE ENERGY FOUNDATION

Search/Filter List of Renewable Generators

Search again | Back to Generators | Home

Your search returned 41 sites with a capacity of 8,507 MW. In the year to the end of Oct-2018, there were 38 of these sites with a capacity of 8493 MW generating approximately 24,328 GWh and receiving 35,137,839 ROCs.

Page 1 of 1 in descending order of IC (kW)

ID	Generator Name	Country	IC (kW) ▼	Technology	Subsidy	Accreditation	Commissioned	RLF	ALF	LatestData	Latest MWh p.a.	Latest ROCs p.a.
G01177FWEN	Walney Extension	England	659,000	Off-shore wind	None	2017-09-02	2017-09-02			Mar-2018	603,527	
R00021RPEN	London Array Offshore Windfarm	England	630,000	Off-shore wind	RO	2012-11-04	2012-11-04	41.1%	40.0%	Sep-2018	2,209,960	4,125,530
G00008FWSC	Beatrice Offshore Wind Farm	Scotland	588,000	Off-shore wind	None	2018-07-18	2018-07-18			Oct-2018	138,968	
R00007RPWA	Gwynt y Mor	Wales	576,000	Off-shore wind	RO	2013-09-30	2013-09-30	28.6%	36.7%	Sep-2018	1,852,120	3,377,330
R00032RPEN	Race Bank	England	573,300	Off-shore wind	RO	2017-06-08	2017-06-08	41.1%	43.2%	Oct-2018	2,168,090	3,182,570
R00014RPEN	Greater Gabbard	England	504,000	Off-shore wind	RO	2011-02-23	2011-02-23	38.1%	41.0%	Sep-2018	1,811,450	3,362,620
G01178FWEN	Dudgeon Offshore Windfarm	England	402,000	Off-shore wind	CfD	2017-09-19	2017-09-06			Aug-2018	1,586,750	
R00034RPEN	Rampion	England	400,200	Off-shore wind	RO	2017-11-26	2017-11-26			Sep-2018	628,554	1,000,040
R00027RPEN	West of Duddon Sands Offshore Wind Farm	England	388,800	Off-shore wind	RO	2014-02-10	2014-02-10	43.8%	43.1%	Sep-2018	1,467,430	2,789,160
R00031RPEN	Galloper Wind Farm	England	352,800	Off-shore wind	RO	2017-11-05	2017-11-05			Sep-2018	777,551	1,192,480
R00022RPEN	Sheringham Shoal	England	317,000	Off-shore wind	RO	2011-09-02	2011-09-02	37.3%	40.6%	Sep-2018	1,128,430	2,090,200
R00015RPEN	Thanet Offshore Wind Farm	England	300,000	Off-shore wind	RO	2010-07-02	2010-07-02	32.6%	34.7%	Sep-2018	912,654	1,694,010
R00025RPEN	Lincs Wind Farm	England	270,000	Off-shore wind	RO	2012-08-27	2012-08-27	38.7%	41.5%	Oct-2018	980,735	1,597,070
G01175FWEN	Burbo Bank Extension	England	259,000	Off-shore wind	CfD	2016-11-12	2016-11-12	38.4%	37.2%	Oct-2018	843,030	
R00029RPEN	Humber Gateway Offshore Wind Farm	England	219,000	Off-shore wind	RO	2015-03-02	2015-03-02	42.9%	41.9%	Sep-2018	802,922	1,463,410
R00028RPEN	Westermost Rough	England	210,000	Off-shore wind	RO	2014-09-12	2014-09-12	44.9%	48.5%	Oct-2018	891,236	1,442,890
R00023RPEN	Walney Offshore Wind Phase II	England	183,600	Off-shore wind	RO	2011-08-25	2011-08-25	44.6%	45.4%	Oct-2018	730,382	1,161,050
R00019RPEN	Walney Offshore Wind Phase I	England	183,600	Off-shore wind	RO	2011-02-07	2011-01-13	40.6%	38.7%	Oct-2018	622,513	998,040
R00020RPEN	Ormonde Wind Farm	England	150,000	Off-shore wind	RO	2011-08-18	2011-08-18	38.1%	35.2%	Sep-2018	461,960	831,151
R00012RPEN	Gunfleet Sands I	England	108,000	Off-shore wind	RO	2009-07-24	2009-07-24	34.7%	34.2%	Oct-2018	323,334	404,994
R00011RPEN	Inner Dowsing Offshore Wind Farm	England	97,200	Off-shore wind	RO	2008-04-20	2008-04-20	34.6%	35.2%	Oct-2018	299,552	366,163
R00010RPEN	Lynn Offshore Wind Farm	England	97,200	Off-shore wind	RO	2008-03-28	2008-03-15	34.1%	35.2%	Oct-2018	299,804	366,272
R00002DTSC	Aberdeen Offshore Windfarm - Demonstration	Scotland	96,800	Off-shore wind	RO	2018-07-02	2018-07-02			Sep-2018	57,550	
R00003SPSC	Robin Rigg Offshore Wind Farm (East)	Scotland	90,000	Off-shore wind	RO	2010-04-20	2010-04-20	34.6%	35.1%	Sep-2018	258,082	468,485
R00007RPEN	Barrow Offshore Windfarm - A	England	90,000	Off-shore wind	RO	2006-01-01	2006-01-01	35.8%	33.8%	Oct-2018	266,764	222,268
R00002SPSC	Robin Rigg Offshore Wind Farm (West)	Scotland	90,000	Off-shore wind	RO	2009-07-18	2009-07-18	34.9%	36.8%	Sep-2018	290,330	390,544
R00006RPEN	Kentish Flats Ltd - A,C	England	90,000	Off-shore wind	RO	2005-08-01	2005-08-01	31.1%	30.2%	Sep-2018	238,164	220,284
R00005RPWA		Wales	90,000		RO	2009-07-15	2009-07-15	34.6%	35.7%	Sep-2018	281,124	384,622

APPENDIX 2: SUBSTATION DESIGN

1. The proposed onshore substations and National Grid substation are very broadly defined in the Draft DCO and it follows that the proposed *Outline Substation Design Principles* document should apply to each and every item listed, including fencing, signage, lighting, access and parking. In particular the *Principles* must reasonably be extended to include the National Grid substation for which minimal design information is provided.

2. The currently proposed design of the SPR substations would have a significant adverse impact on the landscape in the Friston area. This assertion is supported by the Written Representations concerning Landscape and Visual .

3. It is therefore essential that the design of any such substations should be such as to minimise their landscape visual impact (as well other impacts such as noise, flooding etc.). The current design is regarded as **unacceptable** and should not be consented. However, the proposals below would ensure some improvement to the proposed mitigation and should therefore **be included in any DCO**.

4. The current design of the EA1N and EA2 substations is understood to be based on the EA1 substation recently constructed near to Bramford NGET substation (Ref. 1), and as described in the ES for that project. Overhead images of the Bramford site and comparison with the EA1N and EA2 documentation confirm this. But it should be noted that the Friston substations potentially have significantly taller harmonic filter equipment (18m high versus 12m documented for EA1 at Bramford) (Ref. 2) and these items of equipment would be both highly visible and are documented as being the most noise producing equipment within the proposed substations (Ref. 3).

5. But SPR have offered no justification as to why the Bramford EA1 substation design is the best that can be achieved in the much more environmentally sensitive area of Friston, due to it being currently free of any industrial scale development, unlike Bramford.. It is appears that, despite multiple requests during Consultation, SPR have made no significant effort to achieve a more optimised design, such as by employing independent, industry leading, electrical consultants to advise, as the design shown has been basically unchanged since Phase 2 Consultation.

6. However, NPS EN-1 states (emphasis added):

   "4.5.2 Good design is also a means by which many policy objectives in the NPS can be met, for example the impact sections show how good design, in terms of siting and use of ***appropriate technologies*** *can help mitigate adverse impacts such as noise.*

   4.5.3 In the light of the above, and given the importance which the Planning Act 2008 places on good design and sustainability, the IPC needs to be satisfied that energy infrastructure developments are sustainable and, having regard to regulatory and other constraints, are as attractive, durable and adaptable (including taking account of natural hazards such as flooding) as they can be. In so doing, the IPC should satisfy itself that the applicant has ***taken into account both functionality (including fitness for purpose and sustainability) and aesthetics*** *(including its contribution to the quality of the area in which it would be located) as far as possible. Whilst the applicant may not have any or very limited choice in the physical appearance of some energy infrastructure, there may be opportunities for the applicant to demonstrate good design in terms of siting relative to existing landscape character, landform and vegetation. Furthermore, the design and sensitive use of materials in any associated development*

such as electricity substations will assist in ensuring that such development contributes to the quality of the area.

4.5.4 For the IPC to consider the proposal for a project, ***applicants should be able to demonstrate in their application documents how the design process was conducted and how the proposed design evolved****. Where a number of different designs were considered, applicants should set out the reasons why the favoured choice has been selected. In considering applications the IPC should take into account the ultimate purpose of the infrastructure and bear in mind the operational, safety and security requirements which the design has to satisfy."*

But no evidence has been found in the Application documentation as to how the design process was conducted and what technology and functionality alternatives were considered in order to reduce the adverse environmental impact of the proposed substations.

7. The design of the *Rampion* wind farm on-shore substation near to the NGET substation at Bolney, West Sussex, provides a clear challenge to what SPR are offering for EA1N and EA2. The elevation plans for this (Ref. 4 and extracts in Figs. 1 & 2) show **nothing above 8.3m** in the substation apart from the top of the Super Grid Transformer 'horns' at 10.5m. Everything else is nicely designed to fit below 8.3m, including the service buildings, SVC/STATCOMS etc. It is understood that this type of design is known by specialist engineering contractors as a 'low impact' design (Ref. 5) and it is clear from Ref. 7 that the original design was the subject of considerable improvement as a result of the Consultation and Examination process.

8. The *Rampion* substation plan area (Ref 6 and extract in Fig.3) appears to be about 400m x 100m compared with the 190m x 190m proposed for EA1N and EA2, **so is quite similar in area.** The designed power capability is however 700MW (as per DCO) against the 800MW / 900MW for EA1N and EA2. Also the switchgear is AIS rather than the GIS proposed by SPR, which is why the service buildings are no higher than 6m, but nevertheless it is clear that effort has been made to minimise substation overall height and visual impact.

9. Accordingly it appears likely that SPR could deliver a much lower form of development. Even if the equipment and building height increased to 10m to accommodate the increased power output and use of GIS equipment compared with Rampion it would have far less Adverse Visual Impact than the current SPR design with 15m high service buildings and 18m high harmonic filters.

10. It is understood that GIS circuit breakers are now available which have a significantly reduced height than those used for Bramford EA1 and again this is an area that needs investigation in an effort to reduce the visual and other adverse impacts of the **currently unacceptable design**.

11. SPR have proposed that the cladding and architectural appearance of the EA1N and EA2 substations should be subject to review by organisations such as the Design Council. But these organisations are not believed to be qualified to critique the choice and arrangement of electrical power equipment which is the underlying cause of the landscape impact. And neither can the Local Authorities and other Statutory organisations involved in the Applications be expected to retain specialist staff able to fully challenge the technical design.

12. It is therefore proposed that any DCOs approved for EA1N and EA2 include wording requiring SPR to have the all the related substation designs, including the National Grid substation, reviewed by industry leading independent power engineering consultants against the strict criterion of achieving the lowest possible landscape and other adverse environmental impacts by best choice and layout of power equipment, as was the design approach with the *Rampion* project.

13. The outcome of such a review should be signed off by a recognised authority, such as a suitably qualified person nominated by the Royal Academy of Engineering. Clearly such a requirement must run alongside the aesthetic design aspects of the substation being subject to review by the Design Council or equivalent organisation as already proposed by the Applicant.

14. An integrated approach to all aspects of substation design, including structures, landscape, rights of way etc. as envisaged by ExQ1 1.0.8 would be highly desirable and could readily incorporate the principles outlined in paragraph 10 above. An Overview Panel comprising relevant experts together with Local Authority and community representatives to address the respective issues would be very appropriate, as part of a staged review and guidance process. Such a panel would need to be able to address and advise on cumulative impact issues arising from potential other projects.

15. The 'design approach' methodology used for the Hinkley Point C Connector Project appears relevant and the timetable to which it was operated could be a guide to this new project.

16. A particular concern is that there remains the possibility of the project being substantially changed in the event that the subsidies required by the Applicant are only partly available through the CfD process. As this would probably be post-DCO consent the Overview Panel would need to authorised to remain active to address such issues until such time as a finalised design has been agreed.