

Submission in response to OFGEM’s Minded-to consultation on Needs Case and Delivery Model for the Orkney Transmission Project

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Submitted on: 29 March 2023

Underpinning both the original consultation that resulted in a conditional approval of the Final Needs Case for the Orkney electricity transmission project published on 16 September 2019; and the ongoing Minded-to consultation on Needs Case and Delivery Model, are the provisions contained in the **Electricity Act 1989** and particularly **section 3** of that Act.

Item 1 Section 3A (1) of that Act is clear in its principal objective; to protect the interests of existing and future consumers in relation to electricity conveyed by distribution systems or transmission systems, those interests being the interests of existing and future consumers taken as a whole.

In the conditional approval published by OFGEM on 16 September 2019 at “*The conditions for approval – Minimum threshold of generation*” it clearly and unambiguously states:

“... we are concerned that a constraints-based CBA on a link such as Orkney, which is a radial extension to the existing transmission network, is likely to overstate the consumer detriment of not building a link. The constraints being considered in the Orkney CBA do not exist currently, and will not exist unless the link is built – hence it cannot be argued that a need to relieve constraints is driving the need for the link.”

How can the arbitrary decision to use the LOTI model be justified, since it is designed to assess large electricity transmission projects coming forward between 1 April 2021 and 31 March 2026, and Scottish Hydro Electric Transmission submitted the Final Needs Case for the Orkney transmission project in March 2018?

Have the LOTI assessment stages been satisfied?

Have the LOTI eligibility criteria been satisfied?

Have the LOTI Transmission Owner’s submission requirements been satisfied?

How does consideration under LOTI offer material or significant change to the original conclusion that the consumer detriment of not building a link was overstated?

Given the principal objective stated at Section 3A (1) of the Electricity Act 1989 is protection of existing and future interests of consumers, how does consideration under LOTI offer such protection?

Item 2 Section 3A (1A)(c) of the Electricity Act 1989 is clear that the interests of consumers as a whole must be taken into account in relation to electricity conveyed by distribution systems or transmission systems.

At paragraph 2.15 of OFGEM's Minded-to consultation document, it is stated that the implementation costs of the preferred option have increased from £262M to £371M over a three year period; a 42% increase. Given the extreme volatility of the various global market sectors involved in the provision of an interconnector, it is by no means certain that the implementation costs of the preferred option will not continue to increase substantially year-on-year, and will be considerably higher than £371M if the interconnector ever comes to completion.

Since the interconnector is intended to have a maximum capacity of 220MW and is intended to provide export capacity for potential wind turbine installations with a consented lifetime of 25 years, it seems that the payback on investment will need to be well above present market expectations, without taking any account of required maintenance and upkeep.

It's difficult to see how this investment will provide value for money and protect the interests of consumers as a whole, as required under Section 3A (1A)(c) of the Electricity Act 1989.

Item 3 Section 3A (1B) of the Electricity Act 1989 is clear that effective competition between persons engaged in, or in commercial activities connected with, the generation, transmission, distribution or supply of electricity or the provision or use of electricity interconnectors, must be encouraged to protect consumer interests.

It is clear that ownership of any interconnector will be in the hands of one operator, and access to that interconnector will be at the sole discretion of that operator, including pricing of such access. How have OFGEM fulfilled the requirement for promotion of effective competition to protect consumer interests as required by Section 3A (1B) of the Electricity Act 1989 in their "*minded to approve*" decision?

Item 4 Section 3A (2)(b) of the Electricity Act 1989 states clearly that regard shall be had to the need to ensure that licence holders are able to finance the activities which are the subject of obligations imposed by or under the Act.

The OFGEM Minded-to consultation document, at Chapter 2, states that the conditional decision of 16 September 2019 was dependent on at least 135MW of new generation projects being awarded a CfD or *being likely* to go ahead despite not being awarded a CfD; and that the expectation would be for an independent audit to be carried out, focusing on whether the project is financially viable, has signed a relevant grid connection agreement and has been granted planning permission. It goes on to state that as of December 2022, the status of the total Orkney onshore wind generation "*pipeline*" has exceeded the 135MW threshold set in the conditional decision.

It then states that since the original submission was made there has been a significant increase in the generation that is expected to be connected on the island's network having been either awarded a CfD or granted planning permission, and this has provided OFGEM "*with confidence*" regarding the levels of expected generation in the area. This has "*persuaded*" OFGEM that the increase in expected generation means that an audit is no longer required to assess the financial viability of the relevant projects or that an audit would otherwise provide additional value.

The major potential contributors to the 135MW mentioned in the conditional decision are the three separate turbine clusters commonly referred to as the "*Orkney Community Windfarm*" with a claimed potential total capacity of 86.4MW.

None are built.

These three clusters were granted consent by the Scottish Government in direct contradiction to the advice given by Independent Planning Reporters (Inspectors in England and Wales). These consents do not include grid connections. One cluster is on an uninhabited island with no electrical infrastructure. No decision has yet been taken by Orkney Islands Council, the potential developer, on financing the potential “*Orkney Community Windfarm*”.

The decisions to grant planning consent to the three clusters commonly referred to as the “*Orkney Community Windfarm*” were entirely political decisions, and were not grounded in either sound professional and considered planning considerations, nor were they based on any reliable economic, environmental or financial considerations.

Since no decision has been taken on financing the major part of the potential onshore generation in Orkney, perhaps you can explain to me how this fits with the statutory requirement of section 3A (2)(b) of the Electricity Act 1989?

Since there is no certainty that all or part of the expected potential generation will proceed to completion, is it safe for OFGEM to assume that no audit is required? I respectfully doubt it.

Item 5 Section 3A (2)(c) of the Electricity Act 1989 states clearly that regard shall be had to the need to contribute to the achievement of sustainable development.

If the interconnector is granted approval by OFGEM it is self-evident that it will be a subsea construction.

Persuasive and rigorous research shows that subsea electricity cables produce electromagnetic emissions that interfere with and hinder the migration and breeding patterns of brown crab, a significant sustainable contributor to Orkney’s economy and social infrastructure.

Neither OFGEM nor SHE-T have provided any evidence that they have given any consideration whatsoever to the likelihood, if not certainty, that an interconnector will have serious negative effects on the brown crab stocks in Orkney waters, and hence on the important fishery that helps to sustain a significant economic sector in Orkney.

Given the probable negative effects on the brown crab fishery in Orkney if approval for this interconnector is granted, how can it possibly be compatible with the requirements of section 3A (2)(c) of the Electricity Act 1989?

Item 6 Section (5)(a) of the Electricity Act 1989 is clear that the promotion of efficiency and economy on the part of persons authorised by licences or exemptions to distribute, supply or participate in the transmission of electricity, to participate in the operation of electricity interconnectors, and the efficient use of electricity conveyed by distribution systems or transmission systems, is a statutory duty.

At paragraph 3.4 of OFGEM’s Minded-to consultation document, it is stated that increased costs for the project may suggest a review of the capacity threshold is merited in order to ensure that the transmission link will deliver sufficient benefit to consumers to justify the increased level of investment. It goes on to say that OFGEM is confident that the significant increase in expected generation in Orkney means that there will be a sufficient increase in capacity in the immediate future to justify investment.

Given that physical space in Orkney is finite, where will the expected increase in capacity be physically located?

How much and what part of the indigenous economy will be displaced by the expected increase?

How will this displacement be accommodated within the statutory requirement for promotion of efficiency and economy set out in section (5)(a) of the Electricity Act 1989?

Item 7 Section (5)(c) of the Electricity Act 1989 is clear that there is a statutory duty to secure a diverse and viable long-term energy supply and to have regard to the effect on the environment of activities connected with the generation, transmission, distribution or supply of electricity.

The case for the interconnector is entirely predicated on a sufficiency of generation being supplied by wind turbines, as clearly stated in the section, “*Generation background*” in the original conditional approval of the Final Needs Case published on 16 September 2019. There is therefore no element of diversity as required under section (5)(c) of the Electricity Act 1989.

Persuasive and rigorous research shows that wind turbines, over their comparatively short productive lifespan, produce significant amounts of microplastics, both from their blades and from their coatings. This is contrary to the statutory duty to have regard to the effect on the environment as required under section (5)(c) of the Electricity Act 1989.

The construction and maintenance of wind turbine clusters and associated infrastructure relies on substantial and resource-intensive inputs leading to high levels of embedded CO₂. This is contrary to the statutory duty to have regard to the effect on the environment as required under section (5)(c) of the Electricity Act 1989.

Planning consents for wind turbine clusters in Orkney are presently limited to twenty-five years. This cannot be considered as a long-term source of energy supply. This is contrary to the statutory duty to have regard to the effect on the environment as required under section (5)(c) of the Electricity Act 1989.

The relevant provisions of the **Electricity Act 1989** as referred to throughout this submission are set out as **Appendix 1** below.

Appendix 1

Electricity Act 1989 – Section 3

- 3A** The principal objective and general duties of the Secretary of State and the Authority.
- (1)** The principal objective of the Secretary of State and the Gas and Electricity Markets Authority (in this Act referred to as “*the Authority*”) in carrying out their respective functions under this Part is to protect the interests of existing and future consumers in relation to electricity conveyed by distribution systems or transmission systems.
- (1A)** Those interests of existing and future consumers are their interests taken as a whole, including
- (a)** their interests in the reduction of electricity-supply emissions of targeted greenhouse gases;
 - (b)** their interests in the security of the supply of electricity to them; and
 - (c)** their interests in the fulfilment by the Authority, when carrying out its designated regulatory functions, of the designated regulatory objectives.
- (1B)** The Secretary of State and the Authority shall carry out their respective functions under this Part in the manner which the Secretary of State or the Authority (as the case may be) considers is best calculated to further the principal objective, wherever appropriate by promoting effective competition between persons engaged in, or in commercial activities connected with, the generation, transmission, distribution or supply of electricity or the provision or use of electricity interconnectors.
- (1C)** Before deciding to carry out functions under this Part in a particular manner with a view to promoting competition as mentioned in subsection **(1B)**, the Secretary of State or the Authority shall consider
- (a)** to what extent the interests referred to in subsection **(1)** of consumers would be protected by that manner of carrying out those functions; and
 - (b)** whether there is any other manner (whether or not it would promote competition as mentioned in subsection **(1B)**) in which the Secretary of State or the Authority (as the case may be) could carry out those functions which would better protect those interests.
- (2)** In performing the duties under subsections **(1B)** and **(1C)**, the Secretary of State or the Authority shall have regard to
- (a)** the need to secure that all reasonable demands for electricity are met; and
 - (b)** the need to secure that licence holders are able to finance the activities which are the subject of obligations imposed by or under this Part, the Utilities Act 2000, Part 2 or 3 of the Energy Act 2004, Part 2 or 5 of the Energy Act 2008 or section 4, Part 2, , sections 26 to 29 of the Energy Act 2010, Part 2 of the Energy Act 2013 or the Nuclear Energy (Financing) Act 2022; and
 - (c)** the need to contribute to the achievement of sustainable development.
- (3)** In performing the duties under subsections **(1B)**, **(1C)** and **(2)**, the Secretary of State or the Authority shall have regard to the interests of
- (a)** individuals who are disabled or chronically sick;
 - (b)** individuals of pensionable age;
 - (c)** individuals with low incomes; and
 - (d)** individuals residing in rural areas;
- but that is not to be taken as implying that regard may not be had to the interests of other descriptions of consumer.

- (4) The Secretary of State and the Authority may, in carrying out any function under this Part, have regard to
- (a) the interests of consumers in relation to gas conveyed through pipes (within the meaning of the Gas Act 1986); and
 - (b) any interests of consumers in relation to
 - (i) communications services and electronic communications apparatus, or
 - (ii) water services or sewerage services (within the meaning of the Water Industry Act 1991), which are affected by the carrying out of that function.
- (5) Subject to subsections (1B) and (2), and to section 132(2) of the **Energy Act 2013** (duty to carry out functions in manner best calculated to further delivery of policy outcomes) the Secretary of State and the Authority shall carry out their respective functions under this Part in the manner which he or it considers is best calculated
- (a) to promote efficiency and economy on the part of persons authorised by licences or exemptions to distribute, supply or participate in the transmission of electricity to participate in the operation of electricity interconnectors or to provide a smart meter communication service and the efficient use of electricity conveyed by distribution systems or transmission systems;
 - (b) to protect the public from dangers arising from the generation, transmission, distribution or supply of electricity or the provision of a smart meter communication service;
 - (c) to secure a diverse and viable long-term energy supply, shall, in carrying out those functions, have regard to the effect on the environment of activities connected with the generation, transmission, distribution or supply of electricity or the provision of a smart meter communication service.
- (5A) In carrying out their respective functions under this Part in accordance with the preceding provisions of this section the Secretary of State and the Authority must each have regard to
- (a) the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed; and
 - (b) any other principles appearing to him or, as the case may be, it to represent the best regulatory practice.
- (5B) In subsection (1A) “the designated regulatory objectives” means the objectives set out in **Article 36(c) to (h)** of the **Electricity Directive** but read with the following modifications
- (a) in **Article 36(c)**, for the words from “between” to the end substitute “, including enabling the development of appropriate cross-border transmission capacities to meet demand;”
 - (b) in **Article 36(d)**, omit “in line with general energy policy objectives,
 - (c) in **Article 36(f)**, omit “and foster market integration”, and
 - (d) in **Article 36(g)**, for “their national market” substitute “ the energy market in Great Britain”;
- “emissions” has the same meaning as in the **Climate Change Act 2008** (see **section 97** of that Act);
- “electricity-supply emissions” in relation to emissions of a targeted greenhouse gas, means any such emissions (wherever their source) that are wholly or partly attributable to, or to commercial activities connected with, the generation, transmission, distribution or supply of electricity or the provision or use of electricity interconnectors;
- “targeted greenhouse gases” has the same meaning as in **Part 1** of the **Climate Change Act 2008** (see **section 24** of that Act).

- (6) In subsections (1C), (3) and (4) references to consumers include both existing and future consumers.
- (7) In this section and sections **3B** and **3C**, references to functions of the Secretary of State or the Authority under this Part include a reference to functions under the **Utilities Act 2000** which relate to electricity conveyed by distribution systems or transmission systems.
- (8) In this Part, unless the context otherwise requires
“exemption” means an exemption granted under **section 5**;
“licence” means a licence under **section 6** and “licence holder” shall be construed accordingly.

3B Guidance on social and environmental matters

- (1) The Secretary of State shall from time to time issue guidance about the making by the Authority of a contribution towards the attainment of any social or environmental policies set out or referred to in the guidance.
- (2) The Authority shall, in carrying out its functions under this Part, have regard to any guidance issued under this section.
- (3) Before issuing guidance under this section the Secretary of State shall consult
- (a) the Authority;
 - (b) Citizens Advice;
 - (b)a Consumer Scotland;
 - (c) licence holders; and
 - (d) such other persons as the Secretary of State considers it appropriate to consult in relation to the guidance.
- (4) A draft of any guidance proposed to be issued under this section shall be laid before each House of Parliament.
- (5) Guidance shall not be issued under this section until after the period of forty days beginning with
- (a) the day on which the draft is laid before each House of Parliament; or
 - (b) if the draft is laid before the House of Lords on one day and the House of Commons on another, the later of those two days.
- (6) If, before the end of that period, either House resolves that the guidance should not be issued, the Secretary of State must not issue it.
- (7) In reckoning any period of forty days for the purposes of **subsection (5)** or **(6)**, no account shall be taken of any time during which
- (a) Parliament is dissolved or prorogued; or
 - (b) both Houses are adjourned for more than four days.
- (8) The Secretary of State shall arrange for any guidance issued under this section to be published in such manner as he considers appropriate.

3C Health and safety

- (1) The Secretary of State and the Authority shall consult
 - (a) the Health and Safety Executive about all electricity safety issues, and
 - (b) the Office for Nuclear Regulation about all electricity safety issues relating to nuclear sites (within the meaning of **Part 3** of the **Energy Act 2013**), which may be relevant to the carrying out of their respective functions under this Part.
- (2) The Secretary of State may require the Authority also to consult him about electricity safety issues of particular descriptions.
- (3) The Secretary of State and the Authority shall, in carrying out their respective functions under this Part, take into account any advice given by the Health and Safety Executive or the Office for Nuclear Regulation about any electricity safety issue (whether or not in response to consultation under **subsection (1)**).
- (4) The Authority shall, in carrying out its functions under this Part, take into account any advice given by the Secretary of State about any electricity safety issue (whether or not in response to consultation under **subsection (2)**).
- (5) For the purposes of this section an electricity safety issue is anything concerning the generation, transmission, distribution or supply of electricity which may affect the health and safety of
 - (a) members of the public; or
 - (b) persons employed in connection with any of those activities.

3D Exceptions from **sections 3A to 3C**

- (1) **Section 3A** does not apply in relation to the issuing by the Secretary of State of guidance under **section 3B**.
- (2) **Sections 3A to 3C** do not apply in relation to functions of the Secretary of State under **sections 36 to 37**.
- (3) **Sections 3A to 3C** do not apply in relation to anything done by the Authority
 - (a) in the exercise of functions relating to the determination of disputes;
 - (b) in the exercise of functions under **section 43(3)**.
- (4) The Authority may nevertheless, when exercising any function under **section 43(3)**, have regard to any matter in respect of which a duty is imposed by **sections 3A to 3C** (“a general matter”), if it is a matter to which the CMA could have regard when exercising that function (but that is not to be taken as implying that, in relation to functions mentioned in **subsection (2)**, regard may not be had to any general matter).
- (5) The duties imposed by **sections 3A to 3C** do not affect the obligation of the Authority or the Secretary of State to perform or comply with any other duty or requirement (whether arising under this Act or another enactment, by virtue of any retained obligation or otherwise).

3E *Binding decisions of the Agency for the Cooperation of Energy Regulators and of the European Commission*

- (1) The Authority must carry out its functions under this Part in the manner that it considers is best calculated to implement, or to ensure compliance with, any binding decision of the Agency or the European Commission made under the **Electricity Directive**, the **Electricity Regulation** or the **Agency Regulation** (or the predecessor of the Electricity Regulation or the Agency Regulation) in relation to electricity.
- (2) For the purposes of **subsection (1)**, a binding decision does not include a decision that is not, or so much of a decision as is not, retained EU law.

- 3F** Authority to consult and cooperate with other authorities
- (1) When carrying out its designated regulatory functions the Authority must, wherever it thinks fit
- (a) consult and cooperate with the Northern Ireland Authority;
 - (b) provide the Northern Ireland Authority with information it may require in order to carry out its designated regulatory functions; and
 - (c) consult relevant national authorities.
- (2) In exercising functions in accordance with **subsection (1)** the Authority must, wherever it thinks fit, cooperate with the Northern Ireland Authority with a view to
- (a)
 - (b) the promotion and facilitation of cooperation between transmission system operators;
 - (c) the optimal management of electricity networks;
 - (d) the promotion of jointly managed cross-border trade in electricity and the allocation of cross-border capacity;
 - (e) enabling an adequate level of interconnection capacity;
 - (f)
 - (g) the coordination of the regulation of electricity markets, including rules concerning the management of congestion of electricity networks.
- (3)
- (a)
 - (b) the Office of Communications;
 - (c) the CMA;
 - (d) the Water Services Regulation Authority.

