



Triton Knoll Offshore Wind Farm Project



Supply Chain Plan: Appendices

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CONFIDENTIAL AND COMMERCIALY SENSITIVE

APPENDIX A: ENDNOTES

- ¹ <http://www.marinedataexchange.co.uk/>
- ² <http://www.rwe.com/web/cms/en/2393154/rwe-innogy/about-rwe-innogy/rwe-innogy-uk/working-with-businesses/supply-chain-events/>
- ³ <http://dudgeonoffshorewind.co.uk/news/news-27-01-14>
- ⁴ www.tritonknoll.co.uk
- ⁵ <https://ore.catapult.org.uk/wp-content/uploads/2016/05/Offshore-Wind-Industrial-Strategy-Business-and-Government-Action.pdf> (page 34)
- ⁶ <https://ore.catapult.org.uk/wp-content/uploads/2016/08/BVGA-17004-Report-r2-final.pdf>
- ⁷ https://www.renewableuk.com/resource/resmgr/Publications/Guides/uk_content_methodology.pdf
- ⁸ <http://www.rwe.com/web/cms/en/86182/rwe-innogy/news-press/press-release/?pmid=4003016>
- ⁹ <http://www.energicoast.co.uk/>
- ¹⁰ <https://www.carbontrust.com/about-us/press/2016/07/european-offshore-wind-developers-join-forces-with-the-carbon-trust-to-slash-costs-of-offshore-wind/>
- ¹¹ <http://www.rwe.com/web/cms/en/86182/rwe-innogy/news-press/press-release/?pmid=4012671>
- ¹² <https://www.rwe.com/web/cms/de/86182/rwe-innogy/presse-news/pressemitteilung/?pmid=4010871>
- ¹³ <http://www.eng.ox.ac.uk/geotech/research/PISA/Structure>
- ¹⁴ <http://www.thecrownestate.co.uk/news-and-media/news/2014/sparta-project-to-drive-offshore-wind-cost-reduction/>
- ¹⁵ <http://www.rwe.com/web/cms/de/86182/rwe-innogy/presse-news/pressemitteilung/?pmid=4010452;>
http://www.flow-offshore.nl/images/flow-openbaar/FLOW_Book-11_EN.pdf
- ¹⁶ <http://www.norcowe.no/index.cfm?id=230968>
- ¹⁷ https://www.sintef.no/projectweb/nowitech_old/background/partners/
- ¹⁸ <http://lab.redhost.no/statkraft/>
- ¹⁹ <http://www.elforsk.se/Programomraden/El--Varme/Vindforsk/>
- ²⁰ <http://www.statkraftventures.com/portfolio/>
- ²¹ <http://www.rwe.com/web/cms/en/248922/rwe-innogy/sites/wind-offshore/in-operation/thornton-bank/>
- ²² <https://romaxtech.com/media/1216/statkraft-end-of-warranty-case-study.pdf>
- ²³ <http://www.thecyberhawk.com/2016/05/cyberhawk-completes-roav-inspections-forewinds-dogger-bank-meteorological-masts/>
- ²⁴ <http://www.dongenergy.co.uk/news/press-releases/articles/dong-energy-awards-multi-million-pound-contract-to-babcock-for-world%E2%80%99s-largest-offshore-wind-farm>
- ²⁵ <http://www.power.nsacademy.co.uk/membership/our-members>; <http://www.euskills.co.uk/member-directory>
- ²⁶ <https://www.rweukjobs.com/power-technician-scheme>
- ²⁷ <http://scira.co.uk/education/content.php?In=Bursary%20Scheme>
- ²⁸ <http://www.humberlep.org/skills/humber-energy-campus/>
- ²⁹ <http://pledge.humberlep.org/#list-view>

APPENDIX B: EXECUTIVE SUMMARY

Triton Knoll Offshore Wind Farm Limited (TKOWFL) is a 50:50 joint venture between Statkraft UK Limited and Innogy Renewables UK Ltd, both of which have a strong track record in developing, constructing and operating offshore wind farms in the UK. TKOWFL intends to apply for the second round of the Contract for Difference scheme. TKOWFL has consent for installed generation capacity of up to 900MW.

TKOWFL's supply chain plan (SCP) contains 198 actions and commitments by TKOWFL itself, by its owners and by the companies bidding for the main contracts. Of these, 75 relate to the competition criterion, 71 to innovation and 52 to skills. TKOWFL and its owners have already demonstrated a commitment to the UK supply chain and have already delivered many of these actions. Others are in progress as part of ongoing project development activities. The remaining actions are dependent on the final project definition, final supplier selection and receiving a CfD to facilitate a final investment decision by the project owners. The requirements for a SCP have been central to TKOWFL's procurement process. The requirements form part of the assessment criteria for the main contracts and all potential suppliers that are currently under consideration for the main contracts have submitted or will be required to submit an SCP.

TKOWFL has approached the supply chain with 10 major packages covering turbines, foundations, electrical systems (seven packages), and transport and installation. It is adopting a collaborative approach, where appropriate, to extract maximum value from each potential suppliers specific individual capabilities. These package boundaries are not fixed and TKOWFL will be flexible in the final number and scope of the major contracts to generate the best value for the project.

TKOWFL's top-down approach is supplemented with a commitment to hold and participate in supply chain events, engaging with suppliers outside of the top tier and encouraging competition. Many of these will be focused in the Humber region where the construction of the onshore transmission facilities and the operations of the wind farm will create significant business opportunities. The project team will build on previous experience such as supporting market entry for UK companies such as [REDACTED] and [REDACTED].

TKOWFL believes its commitments will have a significant impact on the project's UK content and is committed to a target of 50% and an aspiration of 55%.

TKOWFL's shareholders have shown, and continue to show, a significant commitment to innovation in offshore wind, through initiatives such as the Carbon Trust Offshore Wind Accelerator. To build on this work, TKOWFL will use at least one turbine location to demonstrate new innovations, provided they do not adversely affect the net value or risk exposure of the project.

TKOWFL's shareholders have a strong track record of supporting skills development for offshore wind farms and the energy sector more generally, driving forward industry development and introducing training initiatives such as apprenticeship schemes. TKOWFL has developed its own skills strategy and built collaborations in the Humber area with the Humber LEP and other local organisations in the skills and recruitment sector in order to learn from peers and share our experience and concerns with local employers, the training providers and the wider skills stakeholders.

APPENDIX C: STRUCTURE OF STATEMENTS

This appendix explains the structure of statements included in the supply chain plan. An example statement is provided below:

- 1.1.1 TKOWFL and its owners commit to promoting the transfer of skills across departments to share best practice and lessons learned. TKOWFL has X employees, of which X have worked on other projects in the owners portfolios. The encouragement of this transfer of skills and knowledge ensures lessons from previous projects in both the UK and Europe are transferred to Triton Knoll. The owners will continue to promote this activity in the future, so that skills and learning from Triton Knoll are transferred to future projects within the owners' portfolios, such as the Dogger Bank zone. ^[S1, S2]
[EV001, EV002]

Below, the components of the paragraph are separated out and the function of each explained.

[1.1.1] *is the supply chain plan paragraph number.*

[TKOWFL and its owners commit to promoting the transfer of skills across departments to share best practice and lessons learned] *is the commitment made by TKOWFL, its owners or its bidders.*

[TKOWFL has X employees, of which X have worked on other projects in the owners portfolios] *is a brief description of the commitment.*

[The encouragement of this transfer of skills and knowledge ensures lessons from previous projects in both the UK and Europe are transferred to Triton Knoll. The owners will continue to promote this activity in the future, so that skills and learning from Triton Knoll are transferred to future projects within the owners' portfolios, such as the Dogger Bank zone] *is the impact of the commitment or action.*

[^{S1,S2}] *is the reference to the sub-criterion addressed in Appendix D.*

[^{EV001, EV002}] *is the reference to the evidence listed in Appendix E and included in Appendix F.*

APPENDIX D: CRITERIA AND SUBCRITERIA FOR THE ASSESSMENT OF SUPPLY CHAIN PLANS

Criterion	Notation	Subcriterion
Competition	C1	Encourage broader supply chains by supporting new entrants to the sector, including identifying companies considered as potential Invitation to Tender (ITT) or pre-qualification candidates where appropriate
	C2	Identify and remove barriers to entry for new supply chain companies, where these are within the scope of the project
	C3	Share best practice and lessons learned
	C4	Improve awareness of the commercial opportunities among both companies that currently supply to the relevant low carbon generation sector and those that have the capability to do so, but have not yet entered the market
	C5	Encourage competitive procurement processes and more open competition across the supply chain to ensure that the widest pool of candidates are able to bid for, and win, contracts
Innovation	I1	R&D, including links to universities and any examples of testing and demonstration
	I2	Technological development
	I3	Innovative procurement or contracting practices – for example allowing less established products or processes to win part of a contract or co-investments in the supply chain which will reduce or manage the allocation of risk in such a way that it supports new entrants or less established suppliers
	I4	Innovative or new installation methods
	I5	Any other practice that is justified as innovative by the project (and its supply chain) or that would boost innovation in the sector – for example, in the build/installation process, the technology used or the way the project is operated
	I6	Examples where the Applicant has, or intends to, share best practice and lessons learned
Skills	S1	An assessment of the future skills requirements at each stage of the project: design, construction (including the major supply chain components), and operation and maintenance for the life of the project
	S2	An assessment of whether these skills are currently in place what, if any, gaps there are likely to be.
	S3	A set of actions that will provide investment in skills and training in order to meet the future needs of the project - as estimated at each stage set out above. For example this could be through internal training or working in partnership with education institutions, colleges, institutions, local or regional authorities, universities, or public or private skills providers, in order to deliver skills that directly benefit the project.
	S4	Plans that the project intends to put in place to maintain and develop the skills necessary for the lifetime of the project
	S5	Actions the project will take to engage apprentices.
	S6	Examples where the Applicant has, or intends to, share best practice and lessons learned.

APPENDIX E: LIST OF SUPPORTING EVIDENCE

Number ¹	Document description	Confidentiality ²
EV001	2505-TKDG2L-PRO-B-RA-0003 04 WTG Procurement Strategy 002	Confidential 12 months after award
EV003	TKOWFL Regeneris economic impact study	Not confidential
EV004	Innogy education case study	Not confidential
EV006	Innogy skills case studies	Not confidential
EV008	Statkraft innovation case studies	Not confidential
EV009	Statkraft skills case studies	Not confidential
EV011	Innogy innovations case studies	Not confidential
EV012	RenewableUK working groups	Not confidential
EV013	Innogy skills case study- Wales	Not confidential
EV015	Statkraft report - Offshore Wind: Delivering More for Less	Not confidential
EV017	2505-TKDG2L-PMO-D-GA-0007 ESI Package Management Plan 001	Confidential 12 months after award
EV022	2505-TKDG2L-PRO-B-RA-0002 Overarching Project Procurement Strategy 001	Confidential 12 months after award
EV024	2505-TKDG2L-PRO-B-RA-0004 ESI Procurement Strategy 001	Confidential 12 months after award
EV025	2505-TKDG2L-PRO-B-RA-0005 03 WTG and OSP Foundation Procurement Strategy 001	Confidential 12 months after award
EV029	2505-TKDG2L-PRO-B-RA-0006 01 Transport and Installation Procurement Strategy 001	Confidential 12 months after award
EV031	TKOWFL UK content assessment	Confidential 12 months after award
EV032	TKOWFL SCP Evaluation Matrix.-final	Confidential 12 months after award
EV033	TKOWFL AMEP Strategy Proposal 04-05-2016	
EV035	TKOWFL 160727 SCP Commitment Workshop	Confidential 12 months after award
EV036	TKOWFL Procurement status	Confidential 12 months after award
EV037	TKOWFL Supply chain opportunities	Not confidential
EV038	██████████ SCP reviews	Confidential 12 months after award
EV039	██████████ SCP reviews	Confidential 12 months after award
EV040	██████████ Wind SCP reviews	Confidential 12 months after award
EV041	██████████ ██████████ SCP reviews	Confidential 12 months after award
EV042	██████████ ██████████ SCP reviews	Confidential 12 months after award
EV043	██████████ ██████████ SCP reviews	Confidential 12 months after award
EV044	██████████ ██████████ SCP reviews	Confidential 12 months after award
EV045	██████████ ██████████ SCP reviews	Confidential 12 months after award
EV046	██████████	Confidential 12 months after award
EV047	██████████	Confidential 12 months after award
EV048	██	Confidential 12 months after award
EV049	██████████	Confidential 12 months after award

¹ Numbers are not sequential because some non-essential evidence has been omitted

² Some TKOWFL documents have had some information redacted. The title of the evidence document has the same level of confidentiality as the document itself.

EV050		Confidential 12 months after award
EV051		Confidential 12 months after award
EV052		Confidential 12 months after award
EV053		Confidential 12 months after award
EV054		Confidential 12 months after award
EV055		Confidential 12 months after award
EV056		Confidential 12 months after award
EV057		Confidential 12 months after award
EV058		Confidential 12 months after award
EV059		Confidential 12 months after award
EV061		Confidential 12 months after award
EV062		Confidential 12 months after award
EV063		Confidential 12 months after award
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EV065		Confidential 12 months after award
EV066		Confidential 12 months after award
EV067		Confidential 12 months after award
EV068		Confidential 12 months after award
EV069		Confidential 12 months after award
EV072		Confidential 12 months after award
EV074		Confidential 12 months after award
EV075		Confidential 12 months after award
EV076		Confidential 12 months after award
EV077		Confidential 12 months after award
EV078		Confidential 12 months after award
EV079		Confidential 12 months after award
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EV081		Confidential 12 months after award
EV082		Confidential 12 months after award
EV083		Confidential 12 months after award
EV084		Confidential 12 months after award
EV085		Confidential 12 months after award
EV086		Confidential 12 months after award
EV087		Confidential 12 months after award
EV089		Confidential 12 months after award
EV090		Confidential 12 months after award
EV091		Confidential 12 months after award
EV093		Confidential 12 months after award
EV095		Confidential 12 months after award
EV096		Confidential 12 months after award
EV097		Confidential 12 months after award
EV098		Confidential 12 months after award
EV102	TKOWFL Major Commitment (Demonstrator) Board Paper	Confidential 12 months after award
EV103	TKOWFL Major Commitment (UK Content) Board Paper	Confidential 12 months after award
EV104	TKOWFL Events	Not confidential
EV105	TKOWFL Lessons Learnt / Meetings Table	Confidential 12 months after award
EV106	TKOWFL Owner knowledge transfer	Not confidential
EV107	2505-TKN-PMO-D-FP-0001	Confidential 12 months after award
EV108	TKOWFL SCP Guidance for Suppliers	Confidential at point of CfD award
EV110	TKOWFL supply chain advisor job description	Confidential at point of CfD award

EV111	TKOWFL Triton Knoll website	Not confidential
EV113	TKOWFL Skills and Employment Plan for the Onshore Electrical System	Confidential 12 months after award
EV114	TKOWFL Project innovations	Confidential 12 months after award
EV115	TKOWFL Innovation work	Not confidential
EV116	TKOWFL Humber LEP & TK MoU	Confidential 12 months after award
EV117	TKOWFL Humber Skills Strategy	Not confidential
EV118	2505-TKDG2L-PRO-B-RA-0007 02 WTG Short List 001	Confidential 12 months after award
EV119	Humber LEP Meet The Buyer Support	Not confidential
EV126	Innogy Apprenticeship scheme Llandrillo College	Not confidential
EV127	Innogy Apprenticeships	Not confidential
EV128	Innogy Apprenticeship launch	Not confidential
EV129	Galloper Skills Plan	Confidential 12 months after award
EV130	TKOWFL Skills Audit Scope of Work	Not confidential
EV131	Grimsby Renewables Partnership Meet The Buyer Support	Not confidential
EV132	TKOWFL Team Members Working on other projects	Confidential 12 months after award
EV133	SLIC Advancing Fatigue Design Guidance & Standards for Offshore Wind Isaac	Not confidential
EV134	OWPB Developer day attendance	Confidential at point of CfD award
EV135	Foundations Smulders TKI	Not confidential
EV136	Galloper business breakfast	Not confidential
EV138	Dudgeon Supplier Day.	Not confidential
EV139	Scira Careers Fact Sheet	Not confidential
EV140	██████████ SCP - Old	Confidential 12 months after award
EV141	██████████ SCP - Old	Confidential 12 months after award
EV142	██████████ SCP - Old	Confidential 12 months after award
EV143	European Offshore Wind Industry Joint declaration on cost reduction	Not confidential
EV144	Galloper Presentation 1	Not confidential
EV145	Galloper Presentation 2	Not confidential
EV146	██████████	Confidential 12 months after award
EV148	██████████	Confidential 12 months after award
EV149	██████████	Confidential 12 months after award
EV150	Team Humber Marine Alliance letter of support.pdf	Confidential at point of CfD award
EV151	Innogy educational schemes	Confidential at point of CfD award
EV152	TKOWFL Construction Port Recommendation	Confidential 12 months after award
EV153	E1 SCP reviews	Confidential 12 months after award
EV154	E2 SCP reviews	Confidential 12 months after award
EV155	E4-E6 SCP reviews	Confidential 12 months after award
EV156	E5-E7 SCP reviews	Confidential 12 months after award
EV157	TI SCP reviews	Confidential 12 months after award
EV159	TKOWFL Humber Skills Pledge	Not confidential
EV160	Innogy wales newsletter	Not confidential
EV161	Innogy Supply chain newsletter 1	Not confidential
EV162	Innogy Supply chain newsletter 2	Not confidential
EV163	Innogy Llandudno presentation	Not confidential
EV164	██████████	Confidential 12 months after award
EV167	North Lincs Council Letter of Support	Confidential 12 months after award
EV169	AMEP Heads of terms	Confidential 12 months after award
EV170	Statkraft Annual Report	Not confidential

EV171	MCA Trinity House meeting minutes 13 June 2016 FINAL	Confidential 12 months after award
EV172	Innogy TCE Supply chain event Bristol	Not confidential
EV173	Innogy Renewables Supply Chain Development Corus 2009	Confidential 12 months after award
EV174	Innogy Case study - [REDACTED]	Confidential 12 months after award
EV175	Innogy Case study - [REDACTED]	Confidential 12 months after award
EV176	TKOWFL E1 & E2 Negotiation Plan	Confidential 12 months after award

APPENDIX F: EVIDENCE DOCUMENTS (TO BE PROVIDED AS SEPARATE FILES)
