



# FAB

## France Alderney Britain Interconnector

### Supply Chain Plan

July 2017



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## 1. EXECUTIVE SUMMARY

The FAB Link project ([www.fablink.net](http://www.fablink.net)) (“the Project”) is in development by FAB Link Ltd in Britain and Alderney, together with RTE ([www.rte-france.com](http://www.rte-france.com)) in France. FAB Link Ltd is a joint venture company incorporated in Guernsey and is 50% owned by Transmission Investment LLP ([www.transmissioninvestment.com](http://www.transmissioninvestment.com)) and 50% owned by Alderney Renewable Energy ([www.are.gg](http://www.are.gg)). The Project has achieved a number of significant milestones including:

- being recognised as a Project of Common Interest and being awarded development funding under the Connecting Europe Facility and;
- receiving Initial Project Approval under the UK interconnectors “Cap and Floor” mechanism.

The Project is on target to achieve its non-recourse financial closing (for FAB Link Ltd) and final investment decision (for RTE) in early 2018, with construction starting shortly thereafter. The Project is based upon 2x700MW HVDC symmetrical monopole  $\pm 320$ kV VSC converter stations and has a target to enter commercial operation at during 2021.

It is envisaged that the Project will comprise the following elements<sup>1</sup>, with FAB Link Ltd ownership covering items (i) through to the point that (vi) leaves Alderney territorial waters:

- i) AC switchgear at the existing 400kV Exeter substation and AC cables from the substation to the British converter station.
- ii) An AC/DC converter station in Britain.
- iii) Onshore DC cables to the British landfall point.
- iv) Offshore DC cables between Britain and the Channel Island of Alderney.
- v) Onshore DC cables across Alderney.
- vi) Offshore DC cables between Alderney and the French landfall point.
- vii) Onshore DC cables from the landfall point to the French converter station.
- viii) An AC/DC converter station in France
- ix) AC cables between the French converter station and the existing 400kV substation at Manuel.

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<sup>1</sup> Accompanied by fibre optic cables

This FAB Link Ltd Supply Chain Plan sets out the contribution to the industrial supply chain supporting the electrical interconnector sector under the headings (i) competition, (ii) innovation and (iii) skills. In this context the primary characteristics of the Project are that:

- It is the first privately developed UK interconnector granted an IPA<sup>2</sup> under the Ofgem cap and floor regime that will be project financed.
- It will provide for the possible future connection for the Race Tidal (Alderney)<sup>3</sup> renewable generation project.
- It will encourage innovation, particularly in the installation of submarine cable in high tidal energy environments and the further development of multi-terminal HVDC technology.

The procurement process for the main EPC contracts is underway. This document is based upon currently available information and strategy and is subject to change and will therefore evolve over time.

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<sup>2</sup> Initial Project Assessment: see link:

[https://www.ofgem.gov.uk/sites/default/files/docs/2015/07/ipa\\_decision\\_july\\_2015\\_0.pdf](https://www.ofgem.gov.uk/sites/default/files/docs/2015/07/ipa_decision_july_2015_0.pdf)

<sup>3</sup> <http://www.openhydro.com/download/OPENHYDRO-RACE-TIDAL-PROJECT-FACT-SHEET.pdf>

## **2. COMPETITION**

### ***“Support the development of competition in supply chains”***

This section describes the measures the Project is taking in order to expand the potential suppliers to the Project and enhance competition in the procurement process.

#### **2.1 Independent Interconnector Project**

Interconnectors by their nature inherently encourage enhanced competition and liquidity to the markets being connected. However, the Project is the first brought forward by private developers to be granted its Initial Project Assessment (IPA) under the Ofgem Cap & Floor Regime. As such it is a new-entrant to the market in its own right. This combined with the fact that the FAB Link Ltd assets will be financed through construction and into operation through a non-recourse project finance process means that this innovative project will provide project finance lenders with opportunities to access a hitherto closed market in this form.

The cost benefits to the customer of this model would only be demonstrated post construction but the expectation is that the cost and business model will be competitive with the incumbent interconnector projects.

A report conducted by Poyry for Ofgem in 2014<sup>4</sup> showed that based upon a near-term cost benefit analysis the Project had a significant overall total welfare impact. The addition of the Project to the suite of interconnector projects under development increases competition in the industry on the interconnector projects and supply chain side.

#### **2.2 Procurement Strategy**

As the FAB Link Ltd assets that are the subject of this supply chain plan will be financed through non-recourse debt, this limits the procurement strategy options to Engineer, Procure, Construct (“EPC”) style contracts, this is so that debt providers have confidence that the majority of construction risks are taken by the contractors. However, this style of contract is common for a project of the size and complexity of the Project regardless of financing arrangements.

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<sup>4</sup> [https://www.ofgem.gov.uk/sites/default/files/docs/2014/12/791\\_ic\\_cba\\_independentreport\\_final.pdf](https://www.ofgem.gov.uk/sites/default/files/docs/2014/12/791_ic_cba_independentreport_final.pdf)

### *Studies and Preliminary Design*

EPC style contracting puts a heavy onus on suppliers to fully understand the scope of work, prepare preliminary designs and verify feasibility during the tendering phase. In order to enable bidders to provide bids with performance, schedule and price certainty, the developers are carrying out relatively detailed studies and investigations to inform the invitation to negotiate. These include:

- Preliminary survey to inform selection of submarine cable route
- Desktop studies to identify existing seabed use and other constraints to cable route options;
- Identifying a preferred submarine cable route;
- Detailed submarine surveys of the selected submarine cable route including bathymetric, geophysical, UXO and geotechnical;
- Metocean studies to understand the marine environment in which the suppliers will need to be able to operate;
- Burial assessment study to determine preliminary cable protection requirements;
- Assessment of available cable protection technologies including cast-iron shells alone or in combination with rock-berms;
- Identifying the AC system interface requirements with RTE and National Grid;
- Determining onshore cable routes and preparing preliminary trench designs, joint bay locations and identifying third party infrastructure and;
- Topographic, geophysical and geotechnical surveys of the converter station sites.

### *EPC Overview*

The physical assets for the Project are to be procured through EPC type contracts, these contracts will constitute the vast majority of the final value of the Project. FAB Link Ltd and RTE will procure these contracts following a single open procurement process that will be compliant with the European Union Utilities Contracts Directive as enacted in under French law (Ordonnance n° 2005-649 – 6<sup>th</sup> of June 2005 and Décret n°2005-1308 – 20<sup>th</sup> October 2005)

2014/25/EU. The EPC procurement will be split into two main contracts, one for the HVDC



cables and one for the Converter Stations<sup>5</sup>. These OJEU notices for these contracts have been published, the details of which can be found in Appendix A.

The future contracts are set out as follows:

Part B – HVDC Converter Stations and UK AC Connections	Part A – HVDC Cables
Two HVDC converter stations at Menuel on the Cherbourg Peninsula and in the area around Exeter Airport, south Devon	25 km onshore DC cables in France
400kV switch-bays at Exeter substation	30km offshore DC cables between France and Alderney
5km 400kV AC underground cables between converter station and NGET substation	1 km onshore cables across Alderney
Maintenance / Service	140km offshore DC cables between Alderney and Britain
	20km onshore DC cables in Britain
	Maintenance / Service

Note – all quoted distances are approximate

This split of contracts is designed to ensure the Project can be project financed (by keeping the packages large enough for liquidated damages to cover lost revenue due to contractor delays) whilst ensuring a good level of competition. Opportunity is provided to suppliers to offer technically and economically optimised solutions.

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<sup>5</sup> This contract will also include the UK HVAC land cables and substation connection works. The French HVAC cables package will be covered under an RTE framework contract.

The key dates in the process are:

Milestone	Timing
Initial Supplier Engagement	Q3 2015
Issue Pre-qualification Questionnaire (PQQ)	Q1 2016
Receive PQQ	Q2 2016
Decide Pre-qualified bidder list and issue Invitation to Negotiate (ITN)	Q3 2016
Receive tenders	Q4 2016
Contracts effective (Notice To Proceed)	End March/Start April 2018

### *Supplier Engagement*

FAB Link Ltd and RTE have carried out a supplier engagement process designed to:

- Ensure the anticipated supplier base is aware of the Project and prepared for the planned procurement process;
- Ensure key technical challenges are highlighted to give suppliers the maximum opportunity to participate;
- Understand the strengths and weaknesses of suppliers and constraints in the market;
- Encourage emerging suppliers to participate through their inclusion in the engagement process.

### *PQQ Process*

The PQQ process is complete and was open to any company worldwide who wished to participate. It was advertised in the Official Journal of the European Union (OJEU).

The criteria for determining the list of pre-qualified bidders was set out in the questionnaire and each successful bidder showed that they:

- have proven technology and manufacturing experience for an equivalent project;
- have suitable financial capacity to take-on the risks and liabilities of an EPC contract of equivalent scale; and
- have demonstrated experience of undertaking an EPC contract of an equivalent scale and complexity in Europe or otherwise outside their home region.

Prospective tenders that did not successfully comply with the specific PQQ requirements tended to be due to either non-compliance in the area of sub-marine cable manufacturing capability for the HVDC cables package or due to the lack of a successfully commissioned similar project for the VSC converters package.

### *ITN Process*

The Invitation To Negotiate was issued at the end of July 2016. In order to deliver a fair and non-discriminatory process to all Tenderers, strict confidentiality and communication protocols apply to the procurement process for all Tenderer engagement.

### *EPC Procurement Status*

EPC bids were received from Tenderers in December 2016 and a process of bid assessment, clarification and negotiation is underway with bid updates being requested through structured rounds of updates. The target is to select the preferred contractors in Q4 2017.

## **2.3 Technology Choices**

### *Part A: Cables*

There are two main types of cable in use for HVDC applications:

- Mass Impregnated (MI) and;
- Cross-Linked Polyethylene (XLPE).

MI cables have been in reliable service for over 50 years. XLPE has a long service record in AC applications and has been in use for DC applications at lower voltage levels for 15 years. More recently XLPE has been used in high voltage applications (up to 320kV) and is considered to be proven technology at that voltage. The Project considers 320kV to be the highest proven DC voltage for XLPE.

The operating voltage for the Project has therefore been selected to allow either cable technology (MI or XLPE) to be employed and hence maximise the competition for the supply of cables. This is important as the capacity of submarine cable factories is limited and the market very active. To meet the Project's planned construction schedule it is considered essential to maintain as many manufacturing options as possible. XLPE cables are expected to be cheaper than MI for the Project.

### *Part B: Converter Stations*

There are two current technologies for the implementation of HVDC transmission systems. These are:

- Line Commutated Converters (LCC) based on thyristor technology; and
- Voltage Sourced Converters (VSC) based on Insulated Gate Bi-polar Transistors

(IGBT's)

LCC converters have been manufactured since the 1980's and are a mature technology for long distance high power DC links. VSC converters have been in production since the late 1990's and to date have been used primarily for lower power interconnectors. More recently, larger VSC interconnectors have been built, for example France-Spain (2 x 1,000MW).

For the Project, the preferred technology is VSC due to the grid connection requirements for the Project. An advantage of VSC converters is the simpler design of the converter transformers which should enable a wider supplier base than might be the case for the more specialist transformers in an LCC solution. VSC converters also need fewer or no filters and therefore require less land than the equivalent LCC converter. A further advantage of VSC is that it enables the use of either XLPE or MI cables, whereas LCC converters are unproven with XLPE due to the need to reverse polarity to achieve a reversal of power direction.

#### **2.4 Procurement in place as at time of writing**

The following main work elements have been contracted for since the last publication of the Supply Chain Plan in November 2016:

##### *Insurance Advisor/Broker*

Aon have been appointed jointly by FAB Link and RTE (following a competitive tendering process) to support the project with structuring and tendering the insurance package required for construction and the first few years of operation (as an option). The insurance package will be placed by the Employers (rather than Contractors), and for FAB Link is expected to include cover for delay in start-up during construction and business interruption during operations to satisfy project finance requirements.

##### *Financial Advisor*

Following a competitive process RBC (Royal Bank of Canada) have been appointed by FAB Link to support the fund raising processes (equity sale and debt raise) envisaged for the FAB Link portion of the project.

## **2.5 Support of New Entrants**

The supplier engagement process and PQQ criteria were designed to encourage emerging suppliers to participate in the EPC Contracts for execution of the Project. Outside the usual European group of converter and cable suppliers, prospective suppliers included Chinese, Japanese and Korean businesses.

These emerging suppliers were encouraged, where appropriate, through the PQQ criteria to partner with installation and civil engineering contractors who have experience delivering EPC projects in Europe, in order to ensure credible proposals that would gain them entry to the ITN process.

## **2.6 Improving Awareness**

Awareness of the Project and the necessary supply chain is promoted through:

- OJEU notices;
- Information provided on FAB Link Ltd & RTE websites;
- Public consultations associated with the Project consenting;
- Promotion of the Project through the PCI or CEF funding processes;
- Direct supplier engagement.

## **2.7 Removing Barriers to Entry**

### *Alderney Race Tidal Project*

The Project is independent from the ARE Race Tidal generation project. The scope of the Project is solely the “two ended” link between Britain and France, however it is an ‘enabling’ project which would (subject to a separate planning process) create the opportunity for a future project to build an AC/DC converter on Alderney and allow renewable generation in Alderney waters – the location of one of Europe’s best resources for tidal-stream power – to access markets in Britain and/or France. In addition, through the sharing of information on offshore conditions, for example, the two projects assist in removing barriers to entry.

### **3. INNOVATION**

#### ***“Support innovation in supply chains”***

This section describes the measures the Project is taking in order to promote research and development into innovative technologies, installation methods, procurement practices, in order to deliver the Project more efficiently and minimise costs for consumers, within the constraints introduced by a project financed process which generally limits the project to selecting proven technology.

#### **3.1 Metocean & Tidal Studies**

The extreme nature of the currents around Alderney drives a need for good quality data as an input to the submarine cable engineering. Modelling of the metocean conditions was carried out by Caen University in early 2015. An additional study was commissioned from DHI Water Environments (UK) Ltd to produce a metocean model of the English Channel that combines hydrodynamics and wave conditions to inform the cable stability design criteria.

#### **3.2 Submarine installation in High Tidal Zones**

##### ***Rock Placement, Rock berm design & Post installation stability studies***

The seabed conditions along parts of the proposed submarine cable routes are expected to be unsuitable for cable protection by burial. It is therefore expected that sections of the route will need to be protected by mechanical means including by rock placement. In itself this is standard industry practice, however the design, installation and maintenance of a rock berm in the challenging tidal conditions of the Alderney race requires additional consideration.

The laying of the cable in high metocean conditions, keeping it in situ while it awaits stabilisation by rock placement, ensuring the rock placement does not damage the cable and aspects associated with the stability and life of the rock berm itself has all formed part of initial study to set out the Project specifications and will feed into detailed discussions with suppliers in due course.

#### **3.3 Landfall Techniques**

FAB Link Ltd has worked closely with UK and Alderney statutory stakeholders such as Natural England, Alderney Wildlife Trust, Alderney Society and the Environment Agency and the local district and town councils to ensure impact of the landfall works will be minimised and due consideration of the peak tourist season is given. The details are yet to be established,



however, horizontal directional drilling is the preferred solution and if so would demonstrate the feasibility of this established technique in challenging conditions.

### **3.4 UK onshore routing design & flood alleviation synergies**

FAB Link Ltd has been liaising closely with the Environment Agency to ensure any proposed routing of the underground onshore cable route will be selected to be synchronous with future proposals for managed river realignment for flood alleviation for the River Otter valley. Furthermore, a key local landowner is closely involved in providing guidance on the suitability of the underground cable route to ensure minimal impact upon the day to day working of their large estate which includes numerous sustainability and conservation initiatives. There are a number of other stakeholders involved closely with the selection of the preferred onshore underground route.

### **3.5 Marine survey**

The marine survey programme was structured such that the geophysical, cone penetration test (CPTs) and vibrocores data from the survey was processed and used to inform the subsequent rock core geotechnical programme that followed on from this. In doing so, it was possible to reduce the programme of rock cores required and consequently to reduce costs.

### **3.6 Project Finance for Cap & Floor supported project**

FAB Link Ltd will be the first counterparty taking a Cap & Floor project forward through project financing. Consequently, the finer details of the Cap & Floor regime will be tested for bankability and the requirements associated with the full suite of revenue generating arrangements will be considered in a full lenders' due diligence process.

As a single stand-alone project, rather than part of a portfolio, FAB Link Ltd will look carefully at the EU and UK changing regulatory and market conditions for interconnectors, particularly regarding the route to market, firmness obligations and onshore capacity restrictions. This may lead to innovation and technical and/or operational decisions based upon this due to the nature of the Project.

### **3.7 Multi-Terminal Converter Station project**

Multi-terminal HVDC interconnectors are rare and designing multi-terminal links capable of power reversal is complex. In the future the tidal generation project could drive the development of multi-terminal capability. Multi-terminal capability is a step towards the

development of DC grid systems, considered to be a significant for the long-term development of interconnected grid systems.

In the event that a future terminal is purchased through a competitive process it is possible that this could lead to a “multi-vendor” outcome. In order to enable the supply of the third terminal by a different supplier, it is necessary to specify the control systems interfaces. Ideally this would be done through development of a common standard (such as through IEC) and the development of such a standard is underway. Understandably this is a slow process and no standard is in place currently. The approach is therefore to require the successful supplier of the two-terminal interconnector to design and document the required interface to a third terminal. This interface specification would then be used by the supplier of the third terminal in its design. The Project benefits, through RTE’s participation, from the innovation driven by the Best Paths project<sup>6</sup> whose focus is multivendor interoperability of HVDC VSC systems.

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<sup>6</sup> <http://www.bestpaths-project.eu/en/demonstration/demo-2>

## **4. SKILLS**

### ***Support the development of skills in supply chains***

This section describes the measures FAB Link Ltd is taking in order to assess and prepare for the skills required in order to complete the development, construction and operation of the Project.

#### **4.1 Development**

FAB Link Ltd has a dedicated team of experienced individuals focussing on the development of the Project to a FAB Link Ltd financial close and RTE final investment decision. In partnership with RTE, and through the support of consultants and other service providers the skills required to progress the Project are brought to bear as and when required.

With the receipt of EPC bids at the end of 2016, the FAB Link project team has been complemented by two additional specialists focussing on leading the commercial and technical elements of the EPC procurement on behalf of FAB Link.

Further specialists have recently been added to the team: one focussing on the market and regulatory considerations and another on the project financing and equity raising arrangements.

FAB Link Ltd is of the view that the skills are in place in the majority of the main potential counterparties to progress the Project, namely EPC contractors, permitting bodies & competent authorities, OFGEM and prospective project financiers.

FAB Link Ltd is an active member of the Renewables UK Consents & Licensing Group and the Fishing Liaison with Offshore Wind and Wet Renewables Group (FLOWW) hosted by The Crown Estate. These groups have enabled the Project to develop and share industry best practice experiences with regards consenting onshore & offshore cables and associated infrastructure. FAB Link Ltd plays an active part in the development of the regulatory regime and is actively involved in industry consultations and current events.

FAB Link Ltd is actively involved in the planning process for the South Inshore and the South Offshore Marine Plan Areas (Draft plan objectives and vision, MMO, March 2015), including attendance at a stakeholder workshop in Plymouth in July 2016 to ensure proposed route of the Project is incorporated into the proposed plans.

#### **4.2 Construction**

The arrangements for the construction phase are still under discussion, although the

expectation is that any FAB Link Ltd contribution to the overall Project construction management team will be assembled from internal and external sources in the lead up to the start of construction.

### **4.3 Operation**

One of FAB Link Ltd's shareholders is an experienced asset manager of transmission assets, and runs the connections to 1,060MW of offshore wind generation in the UK. The approach to operations management of the interconnector and commercial sales of capacity and ancillary services is yet to be determined. Any FAB Link Ltd efforts in this regard will most likely be sourced from a combination of internal and external contributors.

**APPENDIX A:**

**OJEU Notices for EPC Contracts**

This notice in TED website: <http://ted.europa.eu/udl?uri=TED:NOTICE:50857-2016:TEXT:EN:HTML>

**France-Paris La Défense: High-voltage cable  
2016/S 031-050857**

**Contract notice – utilities**

**Supplies**

Directive 2004/17/EC

**Section I: Contracting entity**

**I.1) Name, addresses and contact point(s)**

RTE (Réseau de Transport d'Électricité) et FAB Link Limited  
Coeur Défense — 100 esplanade du Général de Gaulle  
For the attention of: Madame Agnès Labrousse  
92932 Paris La Défense Cedex  
FRANCE  
Telephone: +33 179248210  
E-mail: [agnes.labrousse@rte-france.com](mailto:agnes.labrousse@rte-france.com)

**Further information can be obtained from:** The above mentioned contact point(s)

**Specifications and additional documents (including documents for a dynamic purchasing system) can be obtained from:** The above mentioned contact point(s)

**Tenders or requests to participate must be sent to:** The above mentioned contact point(s)

**I.2) Main activity**

Electricity

**I.3) Contract award on behalf of other contracting entities**

The contracting entity is purchasing on behalf of other contracting entities: no

**Section II: Object of the contract**

**II.1) Description**

**II.1.1) Title attributed to the contract by the contracting entity:**

Lot A: FAB HVDC Cable system.

**II.1.2) Type of contract and location of works, place of delivery or of performance**

Supplies  
Purchase  
NUTS code FR,UK

**II.1.3) Information about a public contract, a framework agreement or a dynamic purchasing system (DPS)**

The notice involves a public contract

**II.1.4) Information on framework agreement**

**II.1.5) Short description of the contract or purchase(s):**

The FAB project is a 2 x 700MW HVDC electrical interconnector project with an operating voltage of +/- 320 kV between France and the UK, via the Channel Island of Alderney, supported by 2 partners: Réseau de Transport d'Électricité (RTE) and FAB Link Ltd. The project comprises Voltage Sourced Converter (VSC) stations (1 in UK near Exeter airport and 1 in France at Menuel and an option for a 3<sup>rd</sup> in Alderney), and approx. 4 x 170km of HVDC submarine cable and approx. 4 x 50km of HVDC land cable in France and the UK.



This contract notice is for 2 pairs of HVDC MI or XLPE cables over a total length of route of approximately 220km, between HVDC converter stations, made up of ~170km HVDC subsea route length and ~ 50km HVDC land route. Installation of all subsea and land cable is included. The scope includes the detail design, engineering, construction, testing, commissioning, spares provision, operational handover and warranty and maintenance of the cables. Lengths given are approximate and may be varied to allow for optimal production and installation cable lengths.

Description of the partners:

Réseau de Transport d'Électricité (RTE):

RTE Réseau de Transport d'Electricité ([www.rte-france.com](http://www.rte-france.com)) is responsible for developing, maintaining and operating all electricity transmission assets in France, French Territorial Waters and the French Exclusive Economic Zone, and for ensuring the secure supply of power. RTE is the owner of all transmission assets in France, including the French ends of the existing interconnectors to Belgium, Germany, Switzerland, Italy, Spain and Britain. In addition to FAB, RTE is currently developing a number of other HVDC interconnectors to neighbouring countries.

FAB Link Limited:

FAB Link Ltd is a joint venture company incorporated in Guernsey. The purpose of the company is the development, procurement, financing, construction and operation of the UK and Alderney portion of the FAB project. It is 50 % owned by Transmission Investment LLP and 50 % owned by Alderney Renewable Energy. FAB Link has been awarded a cap and floor regime by Ofgem and will raise funds for the investment through a project finance process.

Alderney Renewable Energy (ARE):

Alderney Renewable Energy ([www.are.gg](http://www.are.gg)) is the developer of the tidal power resources on Alderney. On 13.11.2008 ARE secured a 65 year licence from The States of Alderney and the Alderney Commission for Renewable Energy. The licence provides ARE with access to Alderney's Territorial waters, an area of 48 square miles, and permits ARE to install tidal turbines and infrastructure for renewable energy systems. ARE is currently developing a 300MW project, Race Tidal.

Transmission Investment (TI):

Transmission Investment ([www.transmissioninvestment.com](http://www.transmissioninvestment.com)) is a UK-based firm that specialises in the development, acquisition, financing and management of electricity transmission assets.

Transmission Investment is a partner in Transmission Capital Partners (for more information see: [www.transmissioncapital.com](http://www.transmissioncapital.com)) and through this it runs 5 offshore wind project connections in the UK. The final contracting entities will be RTE and FAB Link Ltd.

II.1.6) **Common procurement vocabulary (CPV)**

31321300, 31321500, 45231400

II.1.7) **Information about Government Procurement Agreement (GPA)**

The contract is covered by the Government Procurement Agreement (GPA): yes

II.1.8) **Information about lots**

This contract is divided into lots: no

II.1.9) **Information about variants**

Variants will be accepted: yes

II.2) **Quantity or scope of the contract**

II.2.1) **Total quantity or scope:**

II.2.2) **Information about options**

Options: yes

Description of these options: Services, works and supplies options. They will be described in ITT Documentation.

II.2.3) **Information about renewals**

This contract is subject to renewal: no

II.3) **Duration of the contract or time limit for completion**

**Section III: Legal, economic, financial and technical information**

III.1) **Conditions relating to the contract**

III.1.1) **Deposits and guarantees required:**

If applicable, will be described in ITT Documentation.

III.1.2) **Main financing conditions and payment arrangements and/or reference to the relevant provisions governing them:**

If applicable, will be described in ITT Documentation.

III.1.3) **Legal form to be taken by the group of economic operators to whom the contract is to be awarded:**

In the case of Joint venture/ consortium, PQQ responses will be accepted from Applicants provided that at least 1 entity involved in the Joint venture /consortium has registered interest before the closing date stated within the Contract Notice. All joint venture/consortium members will be required to sign non-disclosure agreements with FAB Link Ltd/ RTE prior to submitting PQQ responses and Applicants shall notify FAB Link Ltd/ RTE of the identity of all Joint venture/consortium members prior to submitting PQQ responses.

FAB Link Ltd and RTE reserve the right to ask all parties of the joint venture/consortia to be jointly and severally liable in case of attribution.

III.1.4) **Other particular conditions:**

The performance of the contract is subject to particular conditions: no

III.2) **Conditions for participation**

III.2.1) **Personal situation of economic operators, including requirements relating to enrolment on professional or trade registers**

Information and formalities necessary for evaluating if the requirements are met: Information and formalities necessary for evaluating if the requirements are prescribed within the PQQ. FAB Link Limited and RTE reserve the right to review at any given point in time.

III.2.2) **Economic and financial ability**

Information and formalities necessary for evaluating if the requirements are met: Information and formalities necessary for evaluating if the requirements are prescribed within the PQQ. FAB Link Limited and RTE reserve the right to review at any given point in time.

III.2.3) **Technical capacity**

Information and formalities necessary for evaluating if the requirements are met: Information and formalities necessary for evaluating if the requirements are prescribed within the PQQ. FAB Link Limited and RTE reserve the right to review at any given point in time.

III.2.4) **Information about reserved contracts**

III.3) **Conditions specific to services contracts**

III.3.1) **Information about a particular profession**

III.3.2) **Staff responsible for the execution of the service**

**Section IV: Procedure**

IV.1) **Type of procedure**

**IV.1.1) Type of procedure**

Negotiated

Some candidates have already been selected (if appropriate under certain types of negotiated procedures):

no

**IV.2) Award criteria**

**IV.2.1) Award criteria**

The most economically advantageous tender in terms of the criteria stated in the specifications or in the invitation to tender or to negotiate

**IV.2.2) Information about electronic auction**

An electronic auction will be used: no

**IV.3) Administrative information**

**IV.3.1) File reference number attributed by the contracting entity:**

16271

**IV.3.2) Previous publication(s) concerning the same contract**

no

**IV.3.3) Conditions for obtaining specifications and additional documents**

**IV.3.4) Time limit for receipt of tenders or requests to participate**

14.3.2016 - 12:00

**IV.3.5) Language(s) in which tenders or requests to participate may be drawn up**

English.

**IV.3.6) Minimum time frame during which the tenderer must maintain the tender**

**IV.3.7) Conditions for opening of tenders**

**Section VI: Complementary information**

**VI.1) Information about recurrence**

This is a recurrent procurement: no

**VI.2) Information about European Union funds**

The contract is related to a project and/or programme financed by European Union funds: no

**VI.3) Additional information:**

This contract notice is under French Law. The time for this contract notice is the French time.

The applicable law of the future contract will be decided before the ITT launch. The applicable law will be the French or the English Law.

Applicants or leaders of joint venture/consortia must request to participate in the pre-qualification process by e-mail to [agnes.labrousse@rte-france.com](mailto:agnes.labrousse@rte-france.com)

The PQQ and subsequent ITT will be run through 1 online e-sourcing portal. An account will be created for a nominated individual and an invitation e-mail with login instructions will be issued to you when the PQQ goes live.

Please note that the PQQ will be sent out at a later date (after the closing of this contract notice) and following the return of a signed non-disclosure agreement. These will be issued to you once you have expressed your initial interest in participating in this event and should be returned within 5 working days of receipt.

The PQQ is a questionnaire divided into general questions regarding the applicants and more specific questions regarding the applicants experience relevant to the scope of the project as well as health and safety policies and experience. Full details about the pre-qualification questionnaire (PQQ) process will be described within the PQQ documentation.

In the case of a Joint Venture / Consortium, at least 1 entity involved in the Joint venture /consortium has to submit the documents mentioned above. If the Joint Venture / Consortium is already formed at this stage, each of the entities has to submit the documents mentioned above including details of how they will operate as a Joint Venture / Consortium.

FAB Link Limited and RTE reserve the right to exclude Joint Venture / Consortia applicants who change partners through the process, from the PQQ stage.

FAB Link Limited and RTE reserve the right to demand at any time subsequent to the PQQ stage from the applicant evidence as to the legal position of the Joint Venture / Consortium, in the event that this is not confirmed during the PQQ stage.

Applicants should note that for certain aspects of the work tenderer (s) may be required to select subcontractors from existing RTE qualification systems and/or to use pre-approved subcontractors details of which will be set-out in the ITT or during the tender process.

As both procedures must lead to a fully functioning project, the applicants must be aware that the tenderer to whom this contract will be awarded ('Cable Contractor') may be required to enter into an Interface Agreement with the tenderer to whom the Converter Stations contract will be awarded ('Converter Contractor').

VI.4) **Procedures for appeal**

VI.4.1) **Body responsible for appeal procedures**

See Paragraph VI.4.2)

VI.4.2) **Lodging of appeals**

Precise information on deadline(s) for lodging appeals: According to the provisions defined:

— in Article 44 'Completion of the procedure' of Decree No 2005-1308 of 20.10.2005 published in the Official Gazette of the French Republic 247 of 22.10.2005;

— in Articles 2 to 21 of Order No 2009-515 of 7.5.2009 published in the Official Gazette of the French Republic 107 of 8.5.2009;

— by Decree No 2009-1456 of 27.11.2009 published in the Official Gazette of the French Republic of 28.11.2009.

VI.4.3) **Service from which information about the lodging of appeals may be obtained**

VI.5) **Date of dispatch of this notice:**

9.2.2016

This notice in TED website: <http://ted.europa.eu/udl?uri=TED:NOTICE:50864-2016:TEXT:EN:HTML>

**France-Paris La Défense: Power converters  
2016/S 031-050864**

**Contract notice – utilities**

**Supplies**

Directive 2004/17/EC

**Section I: Contracting entity**

**I.1) Name, addresses and contact point(s)**

RTE (Réseau de Transport d'Électricité) and FAB Link Limited  
Coeur Défense — 100 esplanade du Général de Gaulle  
For the attention of: Madame Agnès Labrousse  
92932 Paris La Défense Cedex  
FRANCE  
Telephone: +33 179248210  
E-mail: [agnes.labrousse@rte-france.com](mailto:agnes.labrousse@rte-france.com)

**Further information can be obtained from:** The above mentioned contact point(s)

**Specifications and additional documents (including documents for a dynamic purchasing system) can be obtained from:** The above mentioned contact point(s)

**Tenders or requests to participate must be sent to:** The above mentioned contact point(s)

**I.2) Main activity**

Electricity

**I.3) Contract award on behalf of other contracting entities**

The contracting entity is purchasing on behalf of other contracting entities: no

**Section II: Object of the contract**

**II.1) Description**

**II.1.1) Title attributed to the contract by the contracting entity:**

Lot B: FAB VSC Converters.

**II.1.2) Type of contract and location of works, place of delivery or of performance**

Supplies  
Purchase  
NUTS code FR,UK

**II.1.3) Information about a public contract, a framework agreement or a dynamic purchasing system (DPS)**

The notice involves a public contract

**II.1.4) Information on framework agreement**

**II.1.5) Short description of the contract or purchase(s):**

The FAB project is a 2 x 700MW HVDC electrical interconnector project with an operating voltage of +/- 320 kV between France and the UK, via the Channel Island of Alderney, supported by 2 partners: Réseau de Transport d'Électricité (RTE) and FAB Link Ltd. The project comprises Voltage Sourced Converter (VSC) stations (1 in UK near Exeter airport and 1 in France at Manuel and an option for a third in Alderney), and, approx 4x170km of HVDC submarine cable and approx 4x50km of HVDC land cable in France and the UK.

This contract notice is for 2 HVDC VSC converter stations, one in the UK and one in France, with the capacity to connect the converter stations with a capacity of 2 x 700MW (2 balanced monopoles) at the receiving end and an operating voltage of +/- 320 kV.

The scope includes the detail design, engineering, construction, testing, commissioning, spares provision, operational handover and warranty and maintenance of the converter stations. It also includes 400kV hybrid switch bays in the NGET Exeter substations, AC interconnecting cables between Exeter and the FAB converter station and all associated protection and control Equipment (6x5km of onshore UK HVAC cables).

There is an option for a third converter station in Alderney connected to the others.

Description of the partners:

Réseau de Transport d'Électricité (RTE):

RTE Réseau de Transport d'Electricité ([www.rte-france.com](http://www.rte-france.com)) is responsible for developing, maintaining and operating all electricity transmission assets in France, French Territorial Waters and the French Exclusive Economic Zone, and for ensuring the secure supply of power. RTE is the owner of all transmission assets in France, including the French ends of the existing interconnectors to Belgium, Germany, Switzerland, Italy, Spain and Britain. In addition to FAB, RTE is currently developing a number of other HVDC interconnectors to neighbouring countries.

Fab Link Limited:

FAB Link Ltd is a joint venture company incorporated in Guernsey. The purpose of the company is the development, procurement, financing, construction and operation of the UK and Alderney portion of the FAB project. It is 50 % owned by Transmission Investment LLP and 50 % owned by Alderney Renewable Energy. FAB Link has been awarded a cap and floor regime by Ofgem and will raise funds for the investment through a project finance process.

Alderney Renewable Energy (ARE):

Alderney Renewable Energy ([www.are.gg](http://www.are.gg)) is the developer of the tidal power resources on Alderney. On 13.11.2008 ARE secured a 65 year licence from The States of Alderney and the Alderney Commission for Renewable Energy. The licence provides ARE with access to Alderney's Territorial waters, an area of 48 square miles, and permits ARE to install tidal turbines and infrastructure for renewable energy systems. ARE is currently developing a 300MW project, Race Tidal.

Transmission Investment (TI):

Transmission Investment ([www.transmissioninvestment.com](http://www.transmissioninvestment.com)) is a UK-based firm that specialises in the development, acquisition, financing and management of electricity transmission assets.

Transmission Investment is a partner in Transmission Capital Partners (for more information see: [www.transmissioncapital.com](http://www.transmissioncapital.com)) and through this it runs five offshore wind project connections in the UK.

The final contracting entities will be RTE and FAB Link Ltd.

II.1.6) **Common procurement vocabulary (CPV)**

31121110, 31200000, 45231400

II.1.7) **Information about Government Procurement Agreement (GPA)**

The contract is covered by the Government Procurement Agreement (GPA): yes

II.1.8) **Information about lots**

This contract is divided into lots: no

II.1.9) **Information about variants**

Variants will be accepted: yes

II.2) **Quantity or scope of the contract**

II.2.1) **Total quantity or scope:**



II.2.2) **Information about options**

Options: yes

Description of these options: Services, works and supplies options. They will be described in ITT Documentation.

II.2.3) **Information about renewals**

This contract is subject to renewal: no

II.3) **Duration of the contract or time limit for completion**

**Section III: Legal, economic, financial and technical information**

III.1) **Conditions relating to the contract**

III.1.1) **Deposits and guarantees required:**

If applicable, will be described in ITT Documentation.

III.1.2) **Main financing conditions and payment arrangements and/or reference to the relevant provisions governing them:**

If applicable, will be described in ITT Documentation.

III.1.3) **Legal form to be taken by the group of economic operators to whom the contract is to be awarded:**

In the case of Joint venture/ consortium, PQQ responses will be accepted from Applicants provided that at least one entity involved in the Joint venture /consortium has registered interest before the closing date stated within the Contract Notice. All joint venture/consortium members will be required to sign non-disclosure agreements with FAB Link Ltd/ RTE prior to submitting PQQ responses and Applicants shall notify FAB Link Ltd/ RTE of the identity of all Joint venture/consortium members prior to submitting PQQ responses.

FAB Link Ltd and RTE reserve the right to ask all parties of the joint venture/consortia to be jointly and severally liable in case of attribution.

III.1.4) **Other particular conditions:**

The performance of the contract is subject to particular conditions: no

III.2) **Conditions for participation**

III.2.1) **Personal situation of economic operators, including requirements relating to enrolment on professional or trade registers**

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**IV.1) Type of procedure**

**IV.1.1) Type of procedure**

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no

**IV.2) Award criteria**

**IV.2.1) Award criteria**

The most economically advantageous tender in terms of the criteria stated in the specifications or in the invitation to tender or to negotiate

**IV.2.2) Information about electronic auction**

An electronic auction will be used: no

**IV.3) Administrative information**

**IV.3.1) File reference number attributed by the contracting entity:**

16270

**IV.3.2) Previous publication(s) concerning the same contract**

no

**IV.3.3) Conditions for obtaining specifications and additional documents**

**IV.3.4) Time limit for receipt of tenders or requests to participate**

14.3.2016 - 12:00

**IV.3.5) Language(s) in which tenders or requests to participate may be drawn up**

English.

**IV.3.6) Minimum time frame during which the tenderer must maintain the tender**

**IV.3.7) Conditions for opening of tenders**

**Section VI: Complementary information**

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agreement. These will be issued to you once you have expressed your initial interest in participating in this event and should be returned within 5 working days of receipt.

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VI.4) **Procedures for appeal**

VI.4.1) **Body responsible for appeal procedures**

See paragraph VI.4.2)

VI.4.2) **Lodging of appeals**

Precise information on deadline(s) for lodging appeals: According to the provisions defined:

— in Article 44 'Completion of the procedure' of Decree No. 2005-1308 of 20.10.2005 published in the Official Gazette of the French Republic 247 of 22.10.2005,

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— by Decree No. 2009-1456 of 27.11.2009 published in the Official Gazette of the French Republic of 28.11.2009.

VI.4.3) **Service from which information about the lodging of appeals may be obtained**

VI.5) **Date of dispatch of this notice:**

9.2.2016