



UK Offshore Transmission

Investment Opportunity

April 2009



RBC Capital Markets®

SUMMARY AND OBJECTIVES

This 'teaser' document outlines an opportunity for investors to acquire electricity transmission assets under a new regulatory regime governing the ownership and operation of offshore electricity transmission which is being developed jointly by the UK Government, through the Department of Energy and Climate Change ("**DECC**") and the UK energy regulator, the Office of Gas and Electricity Markets ("**Ofgem**").

The new regime will provide investors with an unprecedented opportunity to participate in a well-established regulatory framework and to earn long-term, stable revenues as the holders of a new class of transmission asset. DECC and Ofgem, are currently undertaking final consultations on the offshore regime, aspects of which may change as a result of the consultation. The regime is expected to be implemented from June 2009.

The scale of the opportunity is substantial, with an estimated £15 billion of investment expected to be needed in the transmission infrastructure required to meet the UK's challenging targets for deployment of offshore wind over the next decade and beyond. Assets already operating or under construction will be covered under a transitional regime with future assets yet to be constructed covered under an enduring regime.

In particular, this document describes, for the transitional assets, how Ofgem proposes to:

- establish a provisional transfer value for the transmission assets, which have been or are to be constructed by the generator, for each of a number of identified offshore wind projects;
- seek bids from prospective licensees, so-called Offshore Transmission Owners ("**OFTOs**"), who will be required to bid a 20 year revenue stream for each project. The incoming OFTO will be responsible for funding the transfer value and the ongoing cost of financing, operating and managing the assets over the 20 year period;
- identify a short list of bidders for each project who will be invited to provide firm bids;
- identify a preferred bidder for each project from those parties who provide firm bids; and
- grant licences for offshore transmission, adjust the provisional transfer value of the transmission assets (as necessary), effect transfer of ownership to licensees and trigger payment of agreed revenue streams to the OFTOs.

The aggregate value of the assets expected to qualify for the first tender is £750 – 1,000 million.

BACKGROUND TO THE OPPORTUNITY

In early 2008, along with other European Union ("**EU**") member states, the UK committed to a legally-binding EU-wide target requiring 20% of all energy use to come from renewable sources by 2020. The UK's proposed share is to achieve 15% of its energy needs from renewable sources. This target implies that the UK will be required to generate over 30% of its electricity from renewables by 2020.

A key part of this commitment is the UK Government's ongoing support for offshore wind. In late 2007 the Secretary of State for Business, Enterprise and Regulatory Reform ("**BERR**"), the department responsible for renewable energy prior to the creation of DECC, announced proposals to open up UK waters to up to 33 GW of offshore wind energy, a 25 GW increase on the 8 GW previously planned. The UK recently overtook Denmark as the country with the largest offshore wind deployment in the world with 598 MW now installed.

The Government's support for offshore wind has been further underlined by the announcement in November 2008 of an extension of the Renewable Obligation until 2037 and the recent confirmation that offshore wind farm generators will be awarded 1.5 ROCs per MWh, with effect from 1st April 2009.

In order to meet the Government's target, it is estimated that the investment in electricity transmission infrastructure required to connect the offshore wind farms already in operation or under construction, as well as subsequent phases of development activity, including The Crown Estate's current 'Round 3' initiative, will be of the order of up to £15 billion. Typically this will be new infrastructure although in some instances, it has been or will be constructed by the offshore generator.

Ofgem is the office which supports the Gas and Electricity Markets Authority (the “**Authority**”), the regulator of the energy markets in Great Britain. Since taking powers in the Energy Act 2004 (“**EA 2004**”), the Government has been working with Ofgem to establish an offshore transmission licensing regime to regulate the conveyance of electricity along high voltage lines offshore (defined in the EA 2004 as those with a nominal voltage of 132 kV or more) and associated plant and equipment which connect offshore generating stations to the onshore electricity network.

The offshore transmission regime has been developed and refined with stakeholder input over the past four years, and the consultation process for the tendering and establishment of the offshore transmission regime is nearing its conclusion. The regime is being designed to ensure connection to the onshore grid in a timely and cost effective manner, whilst maintaining the integrity of the system as a whole and achieving best value for electricity consumers.

One of the key decisions was that offshore electricity transmission licences should be granted by way of a competitive tender process with the successful bidder becoming the OFTO, and that Ofgem would be the body that runs these tenders. These licences will convey certain rights and responsibilities on OFTOs, including the right to a regulated revenue stream for an initial period of 20 years in return for the provision of transmission services. Ofgem has undertaken significant work on the design of this process and this document includes a summary of the proposed process for the initial round of tenders for relatively well-advanced offshore wind projects which have transmission assets rated at 132 kV or more.

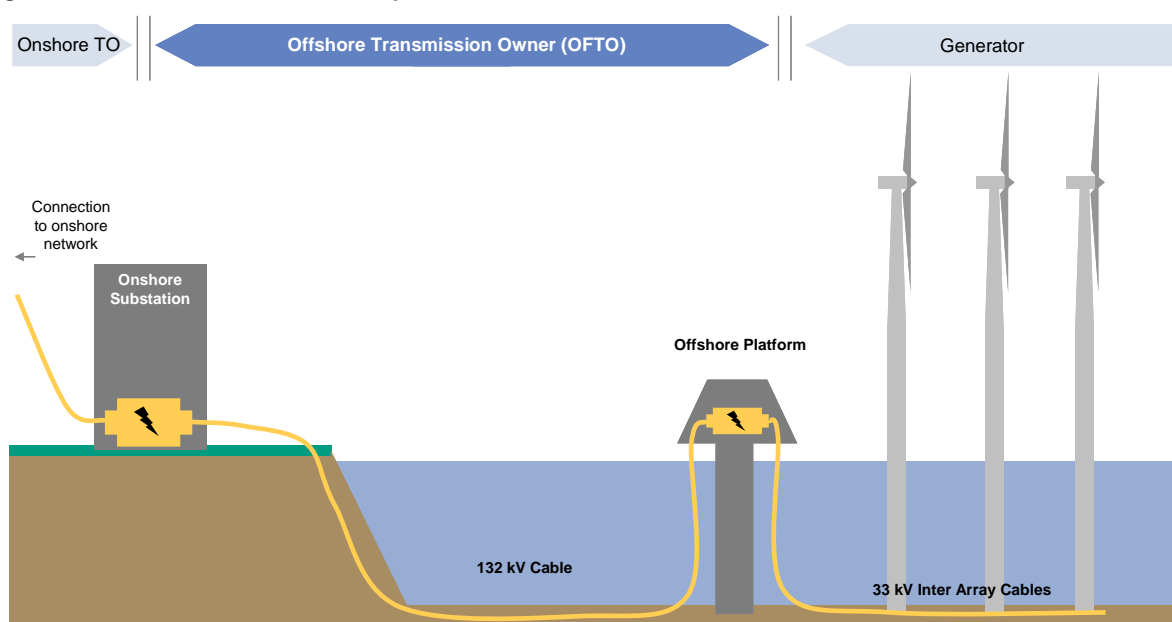
This first transitional tender will be for transmission assets which have been, or are to be, constructed by the offshore developer (the regulatory regime for these assets being referred to as the ‘transitional’ regime). Tendering of the initial projects is expected to commence in June 2009, with first licences expected to be granted by June 2010. Projects which do not qualify for the transitional regime will be part of the ‘enduring’ regime. The key difference in the enduring regime is that potential OFTOs will bid to construct, as well as own and operate, the relevant transmission assets.

THE INVESTMENT OPPORTUNITY

The OFTO will own the transmission assets between the offshore point of connection with the generator and the point of connection with the onshore transmission operator, including cables and associated connection equipment.

Figure 1 contains an illustrative generic schematic of what the transmission asset base to be transferred to the OFTO is likely to comprise.

Figure 1 – Illustrative Generic Ownership Breakdown



The investment opportunity offers those parties interested in bidding, either solely or in a consortium, the ability to become an OFTO for one or more of the projects in the transitional regime. Key features of the investment proposition are as follows:

- Transmission licences will be granted to OFTOs based on a competitive tender process for each transmission asset, described in further detail below. Licences will be open-ended, but with an initial 20 year regulated revenue stream.
- Each transmission asset will have a transfer value determined by Ofgem in accordance with the procedure summarised under 'Implementation of Regulatory Regime' below.
- The successful OFTO will bid a revenue stream for that asset, calculated based on its required return on investment on the transfer value (i.e. the price at which it acquires the assets) and the ongoing cost of financing, operating and managing the asset.
- The OFTO's revenue stream will be based on availability, rather than utilisation, of the offshore transmission assets. The revenue stream will be paid to the OFTO by National Grid Electricity Transmission ("NGET"), the GB System Operator ("GSO").
- There is no automatic periodic price review during the initial 20 year period.
- Adjustments to the revenue stream may be made for certain defined purposes. It is currently proposed that these adjustments will include:
 - adjustment to the revenue stream to reflect any required changes to the provisional transfer value to take account of actual allowed costs (and hence the final agreed transfer value) after construction;
 - full indexation of the revenue stream to RPI;
 - additional revenue for investment in increased transmission line capacity, if needed, provided the additional investment does not exceed 20% of the initial capital cost; and
 - pass-through of certain predictable but uncertain costs, including changes to expected decommissioning costs, code changes, lease costs, licence fees and Ofgem tender costs.
- At the end of the initial 20 year revenue period, the licence may be extended, revoked or retendered.
- A performance bond to ensure continued operational performance will be required in the later stages of the 20 year period.
- Up to a maximum of 10% of the agreed revenue stream will be exposed to an operational performance incentive/penalty mechanism.

The criteria for an offshore wind project to be classified as transitional are set out in the final Ofgem consultation document entitled 'Offshore Electricity Transmission: Updated Proposals for the Competitive Tender Process' (Ref: 21/09) and include the following:

- either it is constructed by the 'Go-Active' date (expected to be 24th June 2009); or
- if not constructed, it has achieved 'financial close' (or equivalent, such as final investment decision and/or board approval) by 'Go-Active'; or
- if not achieved financial close (or equivalent) by 'Go-Active', it has done so by 'Go-Live' (currently expected to occur in June 2010).

Table 1 outlines those projects which are currently expected to qualify for the first transitional tender, based on information provided by project developers. This list is provisional, and the ultimate determination will be made by Ofgem based on the status of each project prior to the launch of the pre-qualification process.

Table 1 – Projects Likely to Qualify for First Transitional Tender

Project	Developer(s)	MW	Expected Completion Date
Barrow	DONG Energy, Centrica	90	Operating
Robin Rigg	E.On	180	July 2009
Gunfleet Sands I & II	DONG Energy	172	2009
Sheringham Shoal	StatoilHydro, Statkraft	315	June 2010
Ormonde	Vattenfall	150	November 2010
Greater Gabbard	SSE/Airtricity, RWE Innogy	504	March 2011
Thanet	Vattenfall	300	Awaiting date from developer
Walney 1	DONG Energy	178	Awaiting date from developer
TOTAL		1,889	

Based on information provided by the developer of the relevant offshore wind farm, Ofgem will first decide a provisional transfer value, prior to commencement of the tender process. The provisional transfer value will equate to the price that the preferred bidder should assume it must pay the developer to acquire the completed transmission assets at closing, for the purposes of its bid.

The provisional transfer value will be subject to a determination, once construction of the transmission assets is complete, but prior to the transfer being effected, and an adjustment will be made, if necessary, to determine the final binding transfer value, which represents the actual transfer value.

The transmission assets will be subject to an independent engineering audit as to their fitness for purpose prior to the transfer being effected. The terms of transfer are likely to include assignment of relevant construction warranties and seller's warranties (the final terms of which may be negotiated between the seller and the OFTO).

The aggregate transfer value of the transmission assets for projects expected to qualify for the first transitional tender is currently estimated by Ofgem to be in the range of £750 – 1,000 million, based on provisional cost estimates. The final aggregate figure will depend on the provision of more definitive cost estimates and which projects actually qualify for the first transitional tender. Ofgem's process for determination of the actual transfer value proposes that the developer receives 100% of all "efficiently incurred" costs of construction of the transmission assets.

A project-specific teaser document with further details on each of these projects, including a description of the transmission assets and a more detailed cost estimate, will be forthcoming before the commencement of the pre-qualification process.

Table 2 lists those projects which are currently expected to qualify for the second and final transitional tender, again based on information provided by project developers. The final transitional tender process is expected to be launched in mid-2010.

Table 2 – Projects Likely to Qualify for the Final Transitional Tender

Project	Developer(s)	MW
Docking Shoal	Centrica	500
Gwynt-y-Mor	RWE Innogy	750
Lincs	Centrica	250
London Array	E.On, DONG Energy, Masdar	1,000
Race Bank	Centrica	500
Walney 2	DONG Energy	183
TOTAL		3,183

INVESTMENT HIGHLIGHTS

Strong political and regulatory support for UK offshore transmission

On the back of the UK Government's commitment to renewable energy and, in particular, the very significant expansion of the UK's offshore wind industry, the independent ownership and operation of offshore transmission in the UK enjoys strong political, regulatory and stakeholder support. DECC and Ofgem have been developing the regime for several years. Both have consulted widely and regularly on each stage of the development of the regime, and have taken account of respondents' views at all stages of the process.

First mover advantage

The transitional regime provides bidders with an unprecedented opportunity to enter the UK regulated electricity transmission sector. Successful bidders in the transitional regime will be well placed to participate in the much larger 'enduring' regime proposed for Round 2 projects which do not reach financial close by Go-Live, and for Round 3 projects. The aggregate cost of transmission assets for Round 3 is currently estimated at £10 – 12 billion (according to a study entitled 'Round 3 Offshore Wind Farm Connection Study' prepared for The Crown Estate by National Grid and Senergy econnect in late 2008).

Robust and transparent competitive process

Ofgem has, where practicable, developed its tender process in accordance with best practice principles in order to ensure that each round of the tender process is as fair and transparent as possible for all bidders. The process is also designed to provide a level playing field and to encourage the widest possible participation from potential investors, including new entrants to the GB electricity transmission market.

Regulated revenue stream for a minimum 20 year period

The revenue stream bid for each successful bidder will be incorporated into its transmission licence, and will be fixed, subject to agreed adjustment mechanisms. The revenue stream will be availability based, and will not be subject to periodic review, provided operational performance remains satisfactory. The revenue stream will also not be exposed to any revenue or performance shortfalls in the offshore wind farms themselves.

Creditworthiness of revenue stream counterparty

The OFTO's revenue stream will be paid by NGET as GBSO, which is the regulated entity responsible for the operation of the transmission system in the UK. Its cost base (including payments it will be required to make to OFTOs) is eligible to be passed through to system users and ultimately consumers. NGET is rated A- by Standard & Poor's, A3 by Moody's and A by Fitch Ratings. In keeping with its licence obligations, NGET will always have to meet specified credit rating requirements. Furthermore, when carrying out its functions, Ofgem must have regard to the need to ensure that licence holders are able to finance the activities which are the subject of statutory obligations placed upon them.

Upside potential

In addition to potential cost savings throughout the life cycle of the assets, OFTOs could have the opportunity to earn additional revenues for better than expected operational performance, increased capacity, certain non-regulated services and reactive power.

Construction risk for projects in transitional regime taken by developers/generators

Only projects that meet Ofgem's criteria (which include 'financial close' or equivalent) will be eligible for the transitional regime. Furthermore, transfer of the transmission assets to the OFTO will occur only once they have been constructed, and their completion and fitness for purpose has been established through an independent engineering audit. Construction risk is therefore effectively eliminated. To facilitate the transfer, Ofgem is, to the extent possible, seeking to develop standard terms of transfer in a generic draft sale and purchase agreement.

The terms of transfer will include requirements on the generator to pass through all construction warranties obtained in respect of the transmission assets. Seller's warranties will also be available, negotiated on a case-by-case basis.

Limited operational risk

Operational risk associated with electricity transmission is typically low, and transmission assets typically incur relatively low ongoing operation and maintenance costs compared to their capital investment. OFTOs' revenue streams will also not be dependent on the operational performance of the wind farms which they serve.

Close cooperation and coordination with key stakeholders

The proposed regime has been developed in full consultation with all key stakeholders and potentially affected parties, including the GBSO, the onshore transmission owners and generators (both existing and potential).

IMPLEMENTATION OF REGULATORY REGIME

Figure 2 summarises the current regulatory framework governing the implementation of electricity transmission in the UK.

Figure 2 – Current Regulatory Framework

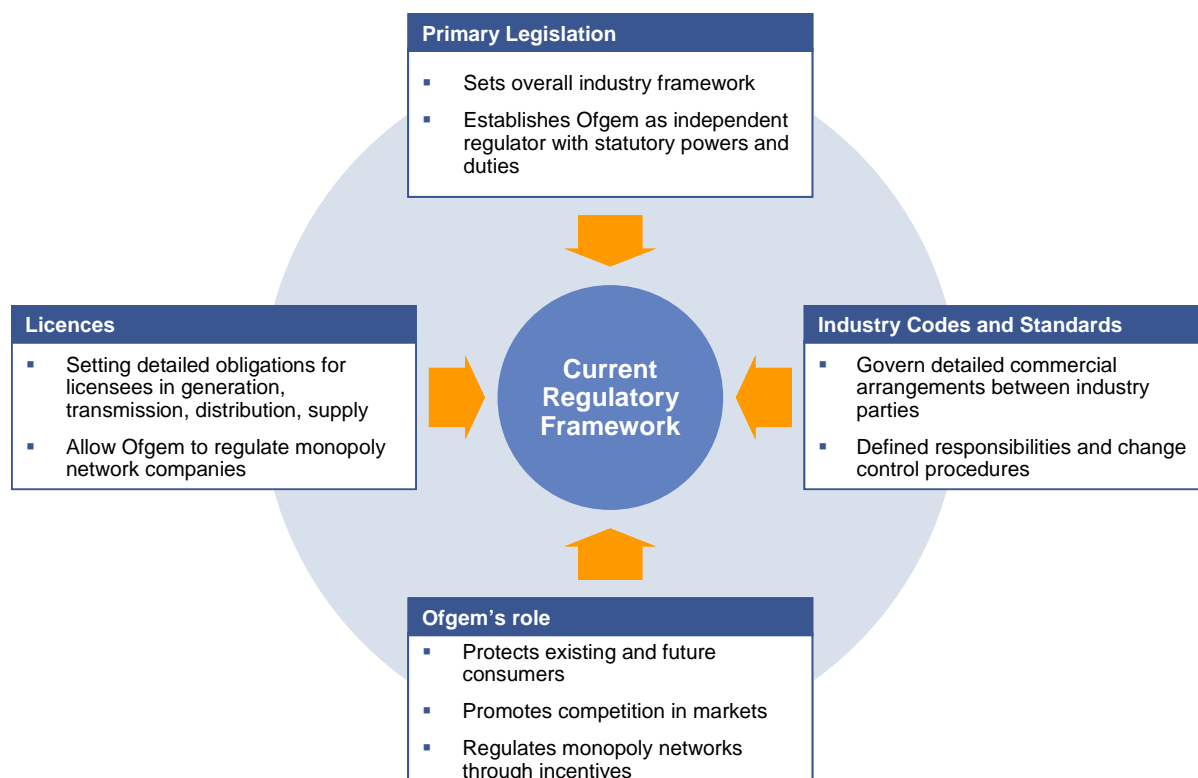


Figure 3 summarises the key industry codes which constitute the contractual framework by which owners, operators and users of the various parts of the electricity network in the UK are bound and interact with each other.

SUMMARY OF TENDER PROCESS

The steps to be taken by Ofgem in selecting an OFTO for each project in the transitional regime are summarised in the following paragraphs.

Offshore transmission licences will be granted using the existing regulatory structure, amended as required for the offshore context. However the tender process has been designed to draw on the UK Government's Public-Private Partnership 'best practice', for example that used for contract procurement under the Private Finance Initiative. Ofgem and DECC are currently engaged in the final round of consultations on the transitional regime.

There will be a four stage tender process, as follows:

1. Pre-qualification

Bidders will be asked to pre-qualify in respect of each project for which they may be interested in bidding. The pre-qualification process is divided into two stages.

The first stage, Pre-Qualification ("PQ"), will be a simple 'pass-fail' test based on an applicant's track record, and specifically (a) its ability to access the necessary (equity and debt) funding to acquire the transmission assets for which it intends to bid, (b) its demonstration of the necessary management and operational capability.

The second stage, Qualification to Tender ("QTT"), will involve a detailed evaluation of each bidder's proposed approach to becoming an OFTO in respect of each project for which it intends to bid. Bidders will be scored based on their responses against a detailed set of objective criteria at both stages. The scoring criteria, methodologies and weightings will be made available to bidders as part of the PQ and QTT process.

Bidders will then be ranked on an individual project basis, and the top three to five bidders for each project will be invited to submit formal bids in the Invitation to Tender ("ITT") phase.

2. Invitation to Tender

The main purpose of the ITT stage is to permit Ofgem to identify a preferred bidder for each project, based on a fair and transparent competition. Each project will be subject to a separate tender.

At ITT stage a full data room for each project will be made available to pre-qualified bidders, populated by Ofgem with information predominantly provided by the offshore developer. The final contents of the data room are expected to include, without limitation, all contracts, leases, warranties, details of assets and liabilities, investment and operating plans, sea-bed surveys and evidence of compliance with all applicable legislation, regulations, etc, in each case relating to the transmission assets. It is also expected that the data room will include sufficient information relating to the relevant generation project to enable potential OFTOs to make an informed investment decision.

Tenders received from shortlisted bidders in the ITT stage will also be scored. The most important element of tenders in respect of each project will be the fixed revenue stream each bidder requires to compensate it for the cost of acquisition, financing and operation of the transmission assets over the initial 20-year licence period. Bidders will be able to bid for more than one project, but such bids will be required to be submitted on a project-by-project basis. Bidders will also be able to submit 'variant' bids for any combination of projects for which they have pre-qualified, identifying the economic effect of any synergies or economies of scale that might be achievable.

3. Best and Final Offer

Where it is not possible to identify a clear preferred bidder after the ITT stage, Ofgem has reserved the right to ask a small number of bidders to submit their best and final offer ("BAFO") before making its final selection. The BAFO stage is not mandatory and will only be applied if considered necessary by Ofgem.

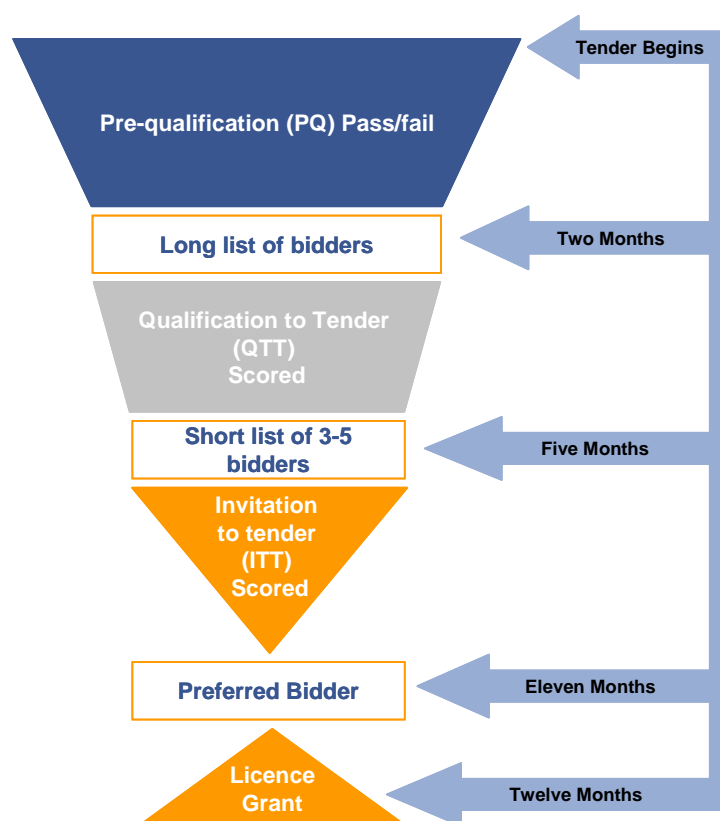
4. Preferred Bidder and Grant of Licence

When the preferred bidder is announced, Ofgem will proceed to finalise arrangements for grant of licence, transfer of the transmission assets from the developer to the successful OFTO and financial close. Transfer of the assets will not occur until construction has been completed, and so, in some cases, this may result in some delay to transfer and closing. It is Ofgem's intent to keep the potential time delay between licence grant and financial close as short as possible and mechanisms for achieving this are under consideration.

INDICATIVE TIMELINE FOR FIRST TRANSITIONAL TENDER

The first transitional tender is expected to take approximately 12 months from 'Go-active' in June 2009. Figure 5 shows the indicative timeline for the first transitional tender.

Figure 5 – Indicative Timeline for First Transitional Tender



NEXT STEPS

Ofgem and DECC are currently undertaking final consultations on the regime. The next steps are as follows:

May 2009	Registration of interest
June 2009	Tender regulations expected to come into effect
24 June 2009	Target 'Go-Active' date
Summer 2009	Preliminary cost assessments published
	First transitional tender process commences

PROCESS & CONTACT PERSONS

This document forms part of Ofgem's introduction of the new transmission regime to potentially interested parties, which will involve an informal 'registration of interest period' which is expected to start in early May 2009. Ofgem has already published, for consultation purposes, its draft template pre-qualification and ITT documents. These documents and other relevant information, including all consultation and related documents, may be accessed via the Ofgem website at: <http://www.ofgem.gov.uk/Pages/OfgemHome.aspx>.

The information in this document is provided for information purposes only. Interested parties are requested to direct all inquiries or communications, including requests for additional information, to one of the individuals at RBC listed below. RBC would welcome the chance to discuss this investment opportunity with interested parties at any stage during the next few weeks, prior to commencement of the formal tender process in the summer. RBC may also be able to facilitate meetings with representatives of Ofgem or DECC, as appropriate, in the period leading up to the 'Go-active' date.

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