

REACTIVE POWER MARKET

OBLIGATORY AND ENHANCED REACTIVE POWER SERVICES

TENDER SHEETS AND CERTIFICATE OF BONA FIDE TENDER

**FOR REACTIVE POWER MARKET AGREEMENTS
COMMENCING 1 APRIL 2012**

December 2011

Network Operations
National Grid
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

PLEASE NOTE:

This document forms part of the Invitation to Tender (ITT) information published by National Grid plc on behalf of National Grid Electricity Transmission plc (“The Company”) and should be read in conjunction with the other documents. In particular, you are referred to the document entitled “Invitation to Tender and Guidance Notes for the Completion of Tenders”. Particular guidance on how to complete these tender sheets is provided in Section 7 of the Invitation to Tender and Guidance Notes for the Completion of Tenders document.

Terms and phrases used in this document have the meanings set out or referred to in the Invitation to Tender and Guidance Notes for the Completion of Tenders document.

IMPORTANT – PLEASE ENSURE:

- **Part 1** of this document **must** be completed by **all** Tenderers
- **Part 2** of this document must be completed **if**:
 - The tendered service exceeds a 12 month period; or
 - The Tenderer wishes to restrict the selection of contract duration; or
 - The tendered service can be provided when not providing Active Power
- **Part 3** of this document must be completed **if** the Tenderer is offering an Enhanced Reactive Power Service (ERPS)
- The **Certificate of Bona Fide Tender** in this document **must** be completed by **all** Tenderers

Completed tenders should be sent in sealed envelopes clearly marked on the outside as “TENDER FOR REACTIVE POWER MARKET APRIL 2012” by 17:00 hours on Friday 20 January 2012 to:

Lisa Kettle
Network Operations (B2)
National Grid
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

REACTIVE POWER MARKET TENDER SHEET 1a

PART 1 – TO BE COMPLETED BY ALL TENDERERS

Reactive Power Market Service from 1 April 2012 – Tenderer's Details

Date of Tender:	
Tenderer's Name:	
Ultimate Holding Company (if any): ⁽¹⁾	
Registered Number of Tenderer: ⁽²⁾	
Address of Registered Office of Tenderer: ⁽²⁾	
Contact Name: ⁽³⁾	
Contact Address: ⁽³⁾	
Contact Telephone Number: ⁽³⁾	
Contact Facsimile Number: ⁽³⁾	
Contact E-mail Address: ⁽³⁾	

*Note: superscript numbers (e.g. ⁽²⁾) refer to guidance in the Invitation To Tender and Guidance Notes for the Completion of Tenders document

REACTIVE POWER MARKET TENDER SHEET 1b

PART 1 (continued) – TO BE COMPLETED BY ALL TENDERERS

Tendered unit details and associated prices

Tendered unit ID: ⁽⁴⁾			
Do you wish to submit the same breakpoints and prices to those of a previous reactive market Tender?	NO / YES (<i>delete as appropriate</i>) If YES – then specify start date of previous tender:		
Contract duration tendered: ⁽⁵⁾			
Price indexation (if applicable): ⁽⁶⁾			
Are there any restrictions on The Company's selection of contract duration tendered?: ⁽⁷⁾	NO / YES (<i>delete as appropriate</i>) (If YES – then also complete Part 2)		
Can Reactive Power be provided when not providing Active Power?: ⁽⁸⁾	NO / YES (<i>delete as appropriate</i>) (If YES – then also complete Part 2)		
Does the Reactive Power capability range tendered below include an Enhanced Reactive Power Service?: ⁽⁹⁾	NO / YES (<i>delete as appropriate</i>) (If YES – then also complete Part 3)		
Nominated Registered Capacity (NRC) in MW: ⁽¹⁰⁾			
Tendered Capability Breakpoints & Associated Prices at Commercial Boundary			
LEADING	Low Point	Mid Point	Maximum
Leading Capability (Mvar): ⁽¹¹⁾	(TQ1 _{lead})	(TQ2 _{lead})	(TQ3 _{lead})
Leading Available Capability Prices (£/Mvarh): ⁽¹²⁾	(CA1 _{lead})	(CA2 _{lead})	(CA3 _{lead})
Leading Synchronised Capability Prices (£/Mvarh): ⁽¹³⁾	(CS1 _{lead})	(CS2 _{lead})	(CS3 _{lead})
Leading Utilisation Prices (£/Mvarh): ⁽¹⁴⁾	(CU1 _{lead})	(CU2 _{lead})	(CU3 _{lead})
LAGGING	Low Point	Mid Point	Maximum
Lagging Capability (Mvar): ⁽¹¹⁾	(TQ1 _{lag})	(TQ2 _{lag})	(TQ3 _{lag})
Lagging Available Capability Prices (£/Mvarh): ⁽¹²⁾	(CA1 _{lag})	(CA2 _{lag})	(CA3 _{lag})
Lagging Synchronised Capability Prices (£/Mvar/h): ⁽¹³⁾	(CS1 _{lag})	(CS2 _{lag})	(CS3 _{lag})
Lagging Utilisation Prices (£/Mvarh): ⁽¹⁴⁾	(CU1 _{lag})	(CU2 _{lag})	(CU3 _{lag})

*Note: superscript numbers (e.g. ⁽¹²⁾) refer to guidance in the Invitation to Tender and Guidance Notes for the Completion of Tenders document

REACTIVE POWER MARKET TENDER SHEET 2

PART 2 – TO BE COMPLETED WHERE TENDER EXCEEDS A 12 MONTH DURATION, OR WHERE A TENDERER WISHES TO RESTRICT THE SELECTION OF THE TENDER DURATION, OR WHERE THE TENDERED UNIT CAN PROVIDE REACTIVE POWER WHEN NOT PROVIDING ACTIVE POWER

Additional Information

Tendered unit ID: ⁽⁴⁾	
Specify any restrictions on The Company selecting the contract duration: ⁽¹⁵⁾	
Where relevant, specify conditions under which Reactive Power can be provided when not providing Active Power: ⁽¹⁶⁾	

*Note: superscript numbers (e.g. ⁽¹⁵⁾) refer to guidance in the Invitation To Tender and Guidance Notes for the Completion of Tenders document

REACTIVE POWER MARKET TENDER SHEET 3a

PART 3 – ONLY TO BE COMPLETED BY TENDERERS OFFERING AN ENHANCED REACTIVE POWER SERVICE (ERPS)

Enhanced Reactive Power Service Tendered Information

Tendered unit ID: ⁽⁴⁾				
Does TQ3_{lead} and/or TQ3_{lag} define a Grid Code Plus Enhanced Reactive Power Service? ⁽¹⁷⁾		NO / YES (<i>delete as appropriate</i>) If YES – then complete the following information: Voltage Range for TQ3_{lead} and/or TQ3_{lag} Capability		
		At rated terminal voltage	TQ3_{lead} ⁽¹⁷⁾	TQ3_{lag} ⁽¹⁷⁾
		Maximum Voltage (%)		
		Minimum Voltage (%)		
Grid Code Plus Enhanced Reactive Power Service Capability at generator stator terminal, for BM Units comprising a <u>SINGLE</u> Generating Unit (at rated terminal voltage)				
⁽¹⁸⁾	MW	LEAD Mvar	LAG Mvar	
AT RATED				
AT FULL OUTPUT				
AT MINIMUM OUTPUT				
Grid Code Plus Enhanced Reactive Power Service Capability at generator stator terminal, for BM Units comprising several <u>SEPARATE</u> Generating Units (at rated terminal voltage) ⁽¹⁹⁾				
UNIT NO:	MW	LEAD Mvar	LAG Mvar	
AT RATED				
AT FULL OUTPUT				
AT MINIMUM OUTPUT				
UNIT NO:	MW	LEAD Mvar	LAG Mvar	
AT RATED				
AT FULL OUTPUT				
AT MINIMUM OUTPUT				
UNIT NO:	MW	LEAD Mvar	LAG Mvar	
AT RATED				
AT FULL OUTPUT				
AT MINIMUM OUTPUT				

*Note: superscript numbers (e.g. ⁽¹⁵⁾) refer to guidance in the Invitation to Tender and Guidance Notes for the Completion of Tenders document

REACTIVE POWER MARKET TENDER SHEET 3b

PART 3 (continued) – ONLY TO BE COMPLETED BY TENDERERS OFFERING AN ENHANCED REACTIVE POWER SERVICE (ERPS)

Enhanced Reactive Power Service Additional Information

Tendered unit ID: ⁽⁴⁾	
Are there any other additional services offered as part of an Enhanced Reactive Power Service?: ⁽²⁰⁾	NO / YES (<i>delete as appropriate</i>) If YES – then specify below:
Are there any restrictions on The Company selecting part of the Enhanced Reactive Power Service?: ⁽²¹⁾	NO / YES (<i>delete as appropriate</i>) If YES – then specify below:

*Note: superscript numbers (e.g. ⁽²⁰⁾) refer to guidance in the Invitation to Tender and Guidance Notes for the Completion of Tenders document

REACTIVE POWER MARKET TENDER SHEET 3c

PART 3 (continued) – ONLY TO BE COMPLETED BY TENDERERS OFFERING AN ENHANCED REACTIVE POWER SERVICE (ERPS)

Enhanced Reactive Power Service Information

Tendered unit ID: ⁽⁴⁾			
What ambient air temperature does the Enhanced Reactive Power Service apply to?: ⁽²²⁾	(^o C)		
Please supply details of the tendered Enhanced Reactive Power Service Capability at the Commercial Boundary at the Nominated Registered Capacity (at rated stator terminal and nominal system voltage) at the ambient air temperatures shown:	⁽²³⁾	LEAD (Mvar)	LAG (Mvar)
	-10 ^o C		
	0 ^o C		
	+10 ^o C		
	+20 ^o C		
	+30 ^o C		
	+40 ^o C		
Are there any other factors (technical or otherwise) restricting or modifying the Enhanced Reactive Power Service tendered?: ⁽²⁴⁾	NO / YES (<i>delete as appropriate</i>) If YES – then specify below:		

*Note: superscript numbers (e.g. ⁽²³⁾) refer to guidance in the Invitation to Tender and Guidance Notes for the Completion of Tenders document

CERTIFICATE OF BONA-FIDE TENDER AND OF NON-CANVASSING
NATIONAL GRID ELECTRICITY TRANSMISSION plc
OBLIGATORY AND ENHANCED REACTIVE
POWER SERVICES ("the Service")

To: National Grid Electricity Transmission plc ("The Company")

The essence of selective tendering is that The Company shall receive bona fide competitive tenders from all parties tendering. In recognition of this principle:

I/WE certify that this is a bona fide tender, intended to be competitive and that I/WE have not fixed or adjusted the amount of the tender or the rates and prices quoted by or under or in accordance with any agreement or arrangement with any other person.

I/WE also certify that I/WE have not done and undertake that I/WE will not do at any time any of the following acts:-

- (a) communicate to a person other than our professional advisers and The Company the amount or approximate amount of my/our proposed tender (other than in confidence in order to obtain quotations necessary for the preparation of the tender for insurance); or
- (b) enter into any agreement or arrangement with any other person to restrain that other person from tendering or to fix the amount of any tender to be submitted by that other person;
- (c) offer or agree to pay or to give, nor pay or give, any sum of money, inducement or valuable consideration directly or indirectly to any person for doing or having done or causing or having caused to be done any act or omission in relation to this or to any other tender or proposed tender for the Service.

In addition I/WE hereby certify that I/WE have not canvassed or solicited any officer, employee or agent of The Company in connection with the award of this tender or any other tender or proposed tender for the Service and that no person employed by me/us or acting on my/our behalf has done any such act.

I/WE further hereby undertake that I/WE will not in the future canvass or solicit any officer employee or agent of The Company in connection with the award of this tender or any other tender or proposed tender for the Service and that no person employed by me/us acting on my/our behalf will do any such act.

Signed:

Name: (BLOCK CAPITALS)

Designation:

(For and on behalf of:)[Tenderer]

Date: