

DATED 16th September 2008

NATIONAL GRID ELECTRICITY TRANSMISSION PLC (1)

and

INTERGEN (UK) LTD (2)

THE CONNECTION AND USE OF SYSTEM CODE

BILATERAL CONNECTION AGREEMENT

FOR A DIRECTLY CONNECTED POWER STATION

At SPALDING NORTH 400kV

Reference: A/INGEN-SHP/08/5269-1EN(0)

CONTENTS

1. **Definitions, Interpretation and Construction**
 2. **Commencement**
 3. **The Connection Site and Transmission Connection Assets**
 4. **Connection Charges**
 5. **Use of System**
 6. **Credit Requirements**
 7. **Connection Entry Capacity and Transmission Entry Capacity**
 8. **Compliance with Site Specific Technical Conditions**
 9. **Term**
 10. **Variations**
 11. **General Provisions**
-
- Appendix A The Connection Site and Transmission Connection Assets**
- Appendix B Connection Charges**
- Appendix C Connection Entry Capacity and Transmission Entry Capacity**
- Appendix F1 Site Specific Technical Conditions - Agreed Ancillary Services**
- Appendix F2 Not Used**
- Appendix F3 Site Specific Technical Conditions - Special Automatic Facilities**
- Appendix F4 Site Specific Technical Conditions - Protection and Control
Relay Settings - Fault Clearance Times**
- Appendix F5 Site Specific Technical Conditions - Load Shedding Frequency
Sensitive Relays**

THIS **BILATERAL CONNECTION AGREEMENT** is made on the _____ day of _____ 2008

BETWEEN

- (1) **NATIONAL GRID ELECTRICITY TRANSMISSION plc** a company registered in England with number 2366977 whose registered office is at 1-3 Strand, London, WC2N 5EH ("**The Company**", which expression shall include its successors and/or permitted assigns); and
- (2) **INTERGEN (UK) LTD** a company registered in England and Wales with number 03039100 whose registered office is at 21 Holborn Viaduct, London, EC1A 2DY ("**User**", which expression shall include its successors and/or permitted assigns)

WHEREAS

- (A) Pursuant to the **Transmission Licence**, **The Company** is required to prepare a **Connection and Use of System Code (CUSC)** setting out the terms of the arrangements for connection to and use of the **GB Transmission System** and the provision of certain **Balancing Services**.
- (B) The **User** has applied for **Connection** to and use of the **GB Transmission System** and pursuant to the **Transmission Licence** **The Company** is required to offer terms in this respect.
- (C) The **User** has applied for connection and use in the capacity of a **Power Station** directly connected to the **GB Transmission System** as set out in Paragraph 1.2.4 of the **CUSC**.
- (D) **The Company** and the **User** are parties to the **CUSC Framework Agreement** (being an agreement by which the **CUSC** is made contractually binding between **CUSC Parties**).
- (E) This **Bilateral Connection Agreement** is entered into pursuant to the **CUSC** and shall be read as being governed by it.
- (F) The parties are also on even date herewith entering into a **Construction Agreement**.

NOW IT IS HEREBY AGREED as follows:

1. DEFINITIONS, INTERPRETATION AND CONSTRUCTION

Unless the subject matter or context otherwise requires or is inconsistent therewith, terms and expressions defined in Section 11 of the **CUSC** have the same meanings, interpretations or constructions in this **Bilateral Connection Agreement** and the following terms and expressions shall have the meaning set out below:-

"Construction Agreement" the agreement made between the parties of even date herewith for the carrying out of construction works;

"Charging Date" as defined in the **Construction Agreement**.

"Lease" as defined in the **Construction Agreement**.

2. COMMENCEMENT

This **Bilateral Connection Agreement** shall commence on the date hereof.

3. THE CONNECTION SITE AND TRANSMISSION CONNECTION ASSETS

The **Connection Site** and **Transmission Connection Assets** to which this **Bilateral Connection Agreement** relates is more particularly described in Appendix A.

4. CONNECTION CHARGES

4.1 The **Connection Charges** payable by the **User** in accordance with the **CUSC** in respect of the **Transmission Connection Assets** set out in Appendix A (including the **One Off Charge** (if any)) are set out in Appendix B. These **Connection Charges** shall be payable by the **User** from the **Charging Date**.

4.2 The **One Off Charge** (if any) shall be payable on the **Charging Date**.

5. USE OF SYSTEM

The right to use the **GB Transmission System** shall commence on and **Use of System Charges** shall be payable by the **User** from the **Charging Date**.

6. CREDIT REQUIREMENTS

The amount to be secured by the **User** is set out in the **Secured Amount Statement** issued from time to time and as varied from time to time in accordance with Section 2 of the **CUSC**.

7. CONNECTION ENTRY CAPACITY AND TRANSMISSION ENTRY CAPACITY

7.1 The **Connection Entry Capacity** in relation to the **Generating Units** and the **Connection Site** and the **Transmission Entry Capacity** in relation to the **Connection Site**, are specified in Appendix C.

7.2 Appendix C Part 3 will set out the **BM Unit Identifiers** of the **BM Units** registered at the **Connection Site** under the **Balancing and Settlement Code**. The **User** will provide **The Company** with the information needed to

complete details of these **BM Unit Identifiers** as soon as practicable after the date hereof and thereafter in association with any request to modify the **Transmission Entry Capacity** and **The Company** shall prepare and issue a revised Appendix C incorporating this information. The **User** shall notify **The Company** prior to any alteration in the **BM Unit Identifiers** and **The Company** shall prepare and issue a revised Appendix C incorporating this information.

7.3 **The Company** shall monitor the **Users** compliance with its obligation relating to **Transmission Entry Capacity** against the sum of metered volumes of the **BM Units** set out in Part 3 of Appendix C submitted by the **User** for each **Settlement Period**.

8. COMPLIANCE WITH SITE SPECIFIC TECHNICAL CONDITIONS

The site specific technical conditions applying to the **Connection Site** are set out in Appendices F1 to F5 to this **Bilateral Connection Agreement** as modified from time to time in accordance with Paragraph 2.9.3 of the **CUSC**.

9. TERM

Subject to the provisions for earlier termination set out in the **CUSC** this **Bilateral Connection Agreement** shall continue until the first to occur of the following:-

- (i) the **User's Equipment** is **Disconnected** from the **GB Transmission System** at the **Connection Site** in accordance with Section 5 of the **CUSC**;
or
- (ii) termination of the **Lease**.

10. VARIATIONS

10.1 Subject to Clause 10.2, 10.3 and 10.4 below, no variation to this **Bilateral Connection Agreement** shall be effective unless made in writing and signed by or on behalf of both **The Company** and the **User**.

10.2 **The Company** and the **User** shall effect any amendment required to be made to this **Bilateral Connection Agreement** by the **Authority** as a result of a change in the **CUSC** or the **Transmission Licence**, an order or direction made pursuant to the **Act** or a **Licence**, or as a result of settling any of the terms hereof. The **User** hereby authorises and instructs **The Company** to make any such amendment on its behalf and undertakes not to withdraw, qualify or revoke such authority or instruction at any time.

- 10.3 **The Company** has the right to vary Appendices A and B and C in accordance with this **Bilateral Connection Agreement** and the **CUSC** including any variation necessary to enable **The Company** to charge in accordance with the **Charging Statements**, or upon any change to the **Charging Statements**.
- 10.4 Appendices A and B shall be varied automatically to reflect any change to the **Construction Works** or **Transmission Connection Assets** as provided for in the **Construction Agreement**.
- 10.5 If the terms of the **Bilateral Connection Agreement** are in dispute and are referred by either party to the **Authority** for determination pursuant to C8 of the **Transmission Licence** prior to acceptance then the **User** acknowledges that **The Company** shall be entitled to amend this **Bilateral Connection Agreement** as necessary to reflect the consequences of any delay in the **User** acceptance of the **Bilateral Connection Agreement**.

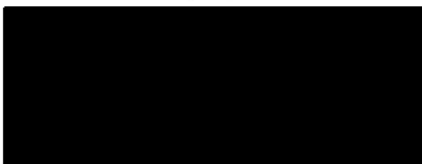
11. GENERAL PROVISIONS

Paragraph 6.10 and Paragraphs 6.12 to 6.26 of the **CUSC** are incorporated into this **Bilateral Connection Agreement** *mutatis mutandis*.

IN WITNESS WHEREOF the hands of the duly authorised representatives of the parties hereto at the date first above written

SIGNED BY ) 
 for and on behalf of)
NATIONAL GRID ELECTRICITY TRANSMISSION plc)

SIGNED BY)
 for and on behalf of)
INTERGEN (UK) LTD)



APPENDIX F

SITE SPECIFIC TECHNICAL CONDITIONS

CONTENTS

User: INTERGEN (UK) LTD
Connection Site: Spalding North 400kV Substation

Contents

- F1 Ancillary Services
- F2 Derogated Plant
- F3 Special Automatic Facilities
- F4 Relay Settings & Protection
- F5 Other Technical Requirements

Functional Drawings

- 41/177551 HV Connections
- 41/177552 Generation Connections

Relevant Electrical Standards

These appendices contain references to **The Company's** Relevant Electrical Standards (RES) throughout. The **User** shall ensure that all additional User equipment installed under this agreement to be contained within **The Company** busbar protection zone at the **User/The Company** connection point (see Grid Code CC 6.2.1.2) complies with the RES.

The RES is updated periodically. If the RES is updated in the period between issuing the Connection Offer and the **User** completing the connection to **The Company** Transmission System then **The Company** will seek agreement with the **User** to use the updated RES as the standard for plant and apparatus at the Connection Point.

APPENDIX F1

SITE SPECIFIC TECHNICAL CONDITIONS

AGREED ANCILLARY SERVICES

User: INTERGEN (UK) LTD
Connection Site: Spalding North 400kV Substation

Agreed Ancillary Services

The Connection and Use of System Code and the Grid Code detail **The Company's** requirements for provision of Mandatory Ancillary Services (CUSC clause 1.3.3, section 4 and schedule 2 - Exhibit 4 and Grid Code CC.8)

The **User** may wish to consider, prior to the construction phase of its project, whether it intends to negotiate the provision of additional Balancing Services (Agreed Ancillary Services) in order that it can install the necessary hardware to allow monitoring of such services.

Details of the types of Balancing Service and methods of securing them are contained in **The Company's** Procurement Guidelines and Balancing Principles.

Commercial Transmission System to Generator Operational Intertripping Schemes

General

The Company may wish to approach the **User** to establish a valid bilateral payment arrangement for the establishment of a Commercial Transmission System to Generator Operational Intertripping Scheme in the future. This approach would be made at such time that **The Company** has established certainty in the local generation background.

APPENDIX F2

SITE SPECIFIC TECHNICAL CONDITIONS

DEROGATED PLANT

User: INTERGEN (UK) LTD

Connection Site: Spalding North 400kV Substation

Derogated Plant

Not applicable

APPENDIX F3

SITE SPECIFIC TECHNICAL CONDITIONS

SPECIAL AUTOMATIC FACILITIES

User: INTERGEN (UK) LTD
Connection Site: Spalding North 400kV Substation

1. Transmission System to Generator Operational Intertripping Schemes
Not Applicable
2. Transmission System to Demand Intertripping Scheme
Not Applicable
3. Transmission System to Directly Connected Customers Intertripping Schemes
Not Applicable
4. Automatic Open/Closure Schemes
Not Applicable
5. System Splitting/Islanding Schemes
Not Applicable
6. Synchronising

The **User** will be required to interface with **The Company** substation synchronising system in accordance with the Relevant Electrical Standards (RES).

APPENDIX F4

SITE SPECIFIC TECHNICAL CONDITIONS

RELAY SETTINGS & PROTECTION

User: INTERGEN (UK) LTD
Connection Site: Spalding North 400kV Substation

Relay Settings & Protection

1. Relay Settings
(CC.6.2.2.5)

The **User** shall complete the attached blank protection schedule pro-forma (Schedule 1 of this Appendix). The **User** shall submit the protection settings on its plant for agreement with **The Company**. This shall include details of the following:

- a. Circuit diagrams of both ac connections and tripping for the purposes of interpreting the schedule
- b. Proposed back-up protection grading curves to allow **The Company** to assess adequacy of co-ordination
- c. Details of the Protection Dependability Index per protected zone (CC 6.2.2.2.2 d).

Not less than 3 months before the Commissioning Programme Commencement Date for the agreed works, the **User** shall have agreed the protection settings on the **User's** equipment with **The Company**. **The Company** shall then finalise the protection settings on **The Company's** own equipment, complete the protection schedule with supporting details where necessary, and supply it to the **User**.

Any subsequent alterations to the protection settings (whether by the **User** or **The Company**) shall be agreed between **The Company** and the **User** in accordance with the Grid Code (CC.6.2.2.5).

No **User** equipment shall be energised until the protection settings have been finalised. The **User** shall agree with **The Company**, and carry out, a combined commissioning programme for the protection systems to an agreed minimum standard specified in **The Company** Transmission Procedure 106.

2. Generating Unit and Power Station Protection Arrangements
(CC 6.2.2.2)

The fault clearance time (from fault inception to circuit breaker arc extinction) for faults on all the **User's** equipment directly connected to **The Company** Transmission System shall meet the following minimum requirement(s): -

400kV within 80ms

For faults on transformers the clearance time is specified for the HV side (e.g. for a fault on a 400/21kV generator transformer the maximum clearance time is 80ms). Where intertripping is required to open circuit breakers, the overall fault clearance

time shall not be extended by more than 60ms (total 140ms in this example) to allow such intertripping to operate. Trip circuits to be supplied by duplicate battery systems.

APPENDIX F5

SITE SPECIFIC TECHNICAL CONDITIONS

OTHER TECHNICAL REQUIREMENTS

User: INTERGEN (UK) LTD
Connection Site: Spalding North 400kV Substation

See functional drawings 41/177551 and 41/177552 attached. In the event of any discrepancy between the text and the functional drawings, the text should be regarded as accurate.

1. Protection of Interconnecting Connection
(CC 6.2.2.3.1)

The term "Interconnecting Connections" is defined as the primary conductors from the current transformer accommodation on the circuit side of the circuit breaker to the Connecting Point.

In this case, the Interconnecting Connection is defined as the connections between the current transformers on the generator circuit side of the circuit breaker to the Connecting Point at the busbar clamps on the busbar side of the busbar selector disconnectors'.

The Company will design the protection scheme for the Interconnecting Connections at the new Connection Site once the Construction Programme has commenced.

In order to provide the required dependability and setting for the protection, the **User** will be required to install auxiliary components on its circuits, which are compatible with those used by **The Company**.

The **User** shall provide two Current Transformer Type 'B' cores, in accordance with the Relevant Electrical Standards (RES) in the current transformer accommodation referred to above, exclusively for use by **The Company** for the protection of the Interconnecting Connections.

2. Circuit Breaker Fail Protection
(CC.6.2.2.3.2)

The **User** shall install circuit breaker fail protection equipment in accordance with the Relevant Electrical Standards (RES) for all User Supergrid voltage circuit breakers that interface directly with **The Company**. An associated alarm must be provided to **The Company** to indicate operation of circuit breaker fail protection. Provision will be made for contacts from circuit breakers for inclusion in the back-tripping scheme.

3. Pole Slipping
(CC.6.2.2.3.4)

Pole slipping equipment is not required by **The Company**. However, **The Company** recognises that the **User** retains the right to install such protection should it decide to do so. In this case **The User** shall provide for **The Company's** acceptance the protection type, its settings and its selection policy.

4. Fault Disconnection Facilities

Provision is to be made by the **User** for tripping of the generator circuit breakers by **The Company** protection systems. Circuit breaker fail back trip facilities to be initiated by the **User** (see clause 2 above) shall be in accordance with the Relevant Electrical Standards (RES).

5. Automatic Switching Equipment
(CC.6.2.3.3)

Where automatic reclosure of **The Company** circuit breakers is required following faults on **The User's** System, automatic switching equipment shall be provided as follows:

Not Applicable

6. Control Arrangements
(CC.6.3)

The **User** is required to install a continuously acting automatic excitation control system for each Generating Unit as detailed in CC.6.3.8 of the Grid Code. The performance requirements of this control system are detailed in Appendix 6 of the Grid Code Connection Conditions. The **User** shall also be required to ensure that the following settings are implemented as detailed in Table 1 below.

Grid Code CC.A.6 Clause	Parameter	Setting
CC.A.6.2.4.2	Upper and lower ceiling voltages to the Generating Unit field to be provided in a time not exceeding 50ms	50ms
CC.A.6.2.4.3	The Exciter shall be capable of attaining an Excitation System On Load Positive Ceiling Voltage of not less than 2p.u of Rated Field Voltage when responding to a sudden drop in voltage of 10% or more at the Generating Unit terminals.	2p.u.
CC.A.6.2.4.4 (i)	The field voltage should be capable of attaining a negative ceiling level of not less than 1.6p.u of Rated Field Voltage after the removal of the step disturbance of CC.A.6.2.4.3.	1.6p.u

7. Dual Fuel Operation

The **User** shall ensure that each Generating Unit can meet the full requirements of the Grid Code and Bilateral Agreement irrespective of the type of primary fuel used.

8. Trading Point Electronic Data Transfer
(CC.6.5.8)

The **User** shall provide electronic data communication facilities approved by **The Company** to permit the submission of data required by the Grid Code, from the **User's** Trading Point (as defined in the Grid Code) to **The Company**. The **User** can elect to send data to two locations depending upon the level of diversity required by the **User**. **The Company** will provide the necessary "router" connection equipment at both Wokingham and Warwick.

As the **User** will participate in the Balancing Mechanism, then the following provisions must be met:

9. Control Telephony
(CC.6.5.2 to CC.6.5.5)

The requirements of Control Telephony are specified in Schedule 1 (Communications Plant) of this appendix. This encompasses Additional Communication Requirements (CC.6.5.7, CC.6.5.8, CC.6.5.9 and BC.1.4.1).

10. Operational Metering
(CC.6.5.6)

The Operational Metering requirements are contained in schedule 2 of this appendix and the drawings attached.

The Company shall supply and install the associated OMS and Ancillary Services Monitor in its common equipment bay area at Spalding North 400kV substation. The **User** shall supply pulses from its energy meters to this point.

The **User** shall supply AC waveforms and plant status signals to **The Company** common equipment bay area marshalling point at Spalding North 400kV substation as given in Schedule 2.

The requirements as specified in schedule 2 must be met for all generating plant, including any plant specifically installed for Black Start, that is the subject of bids or offers to the Balancing Mechanism.

The requirements as specified in schedule 2, to the extent that they are applicable, must be met where reasonably required by **The Company** for demand supplied by the **User** that is the subject to bids and offers to the Balancing Mechanism. **The Company** will not require the requirements of schedule 3 to be met where it is impractical or unreasonable to do so, for example where the demand is a disparate collection of small demands aggregated to form a Balancing Mechanism Unit.

11. Control Point Electronic Dispatch & Logging
(CC.6.5.8)

As **The User** will be required to make offers or bids in the Balancing Mechanism, **The User** shall have Electronic data communication facilities approved by **The Company** to permit the submission of Bid Offer Acceptance data from **The Company** to **The User's** Control Point (as defined in the Grid Code) and to permit

the submission data required by the Grid Code, from **The User's** Control Point to **The Company**. **The Company** will provide the necessary communication links and "router" connection equipment at **The User's** Control Point. The requirements for Control point Electronic Dispatch & Logging are specified in Schedule 1 (Communications Plant) of this appendix.

12. Dynamic System Monitoring
(CC.6.6)

The **User** shall provide Dynamic System Monitoring facilities on **User** and **The Company** circuits to monitor system dynamic performance (CC.6.6) as defined in schedule 3. The monitoring equipment will be installed, commissioned and maintained by **The Company**. For the **User** bays, the **User** shall provide the necessary signals and plant status indications at **The Company** common equipment bay area marshalling point at Spalding North 400kV substation. These signals are to be provided before first synchronisation.

13. Paralleling

There shall be no paralleling of **The Company** system through the **User's** LV system.

14. Safety and Operational Interlocking

Electrical and mechanical interlocking to be provided by the **User** to the Relevant Electrical Standards (RES). This is separate from any interlocking requirements that may be required for Boundary Point Metering.

15. Earthing Facility

All earth mats on the **User** site(s) and **The Company** site(s) where these are adjacent are to be bonded together. **The Company** will provide two points within its substation(s) to facilitate this bonding. Generator transformers are to have Star connected HV windings with the star point solidly earthed.

An earthing survey of all site(s) shall be carried out prior to construction. The earthing system is to be designed to withstand a short circuit current of 63kA for 1 second and the Rise Of Earth Potential (ROEP) should not exceed the statutory requirements at the site.

16. Loss of generation Infeed

Prior to the granting of the Final Operational Notification, the **User** shall confirm that arrangements are in place to secure generation, so not more than 1320MW of generation is at risk of instantaneous loss for any common mode credible failure of the **Users** plant.

The **User** will also provide information on their fuel supply system that could result in losses on the electrical transmission system in excess of the level of the infrequent infeed loss risk as defined within the GBSQSS.

Appendix F5 - Schedule 1
 Site Specific Technical Conditions - Communications Plant (CC.6.5)

Description	Source	Work	Provided By	Notes
Control Telephone	The Company Substation Exchange.	User to install free-issue handset on dedicated cable pairs. User to install wiring from User control room to The Company substation exchange.	Cross-site wiring to be provided by User . The Company to provide handset only.	Where the power station is located immediately adjacent to The Company substation.
Extension Bell	The Company Substation Exchange.	User to install free issue extension bell on dedicated cable pairs (separate from the control telephone). User to install wiring from User control room to The Company substation exchange.	Cross-site wiring to be provided by User . The Company to provide bell only.	
PSTN (or other off-site communications circuits) for Telephony. (CC.6.5.2 to CC.6.5.5)	Public Telecommunications Operator (PTO).	The User shall provide their own off site communications paths. Data and speech-services required by The Company shall be cabled from The User site to The Company Substation Exchange.	Cross-site wiring to be provided by User .	
Instructor facilities (CC.6.5.7)	The Company Substation Exchange.	The Company to include site in Instructor database and commission.	Facility provided via Control Telephone and/or Facsimile machine.	
Data Entry Terminals (Electronic Despatch & Logging) (CC.6.5.8(b))	Public Telephone Operator	User to install EDL terminal.	User to provide EDL terminal. The Company to provide communications path to the EDL terminal in conjunction with The User .	
Facsimile Machine (CC.6.5.9)	Public Telephone Operator.	Install facsimile machine on dedicated communications circuit.	User to provide facsimile machine and wiring to PTO.	
Submission of Balancing Mechanism Unit Data. (CC.6.5.8 and BC.1.4.1)	Public Telephone Operator.	User must provide equipment necessary for submission of Physical Notifications.		

Appendix F5 - Schedule 2
Site Specific Technical Conditions - Operational Metering (CC.6.5.6)

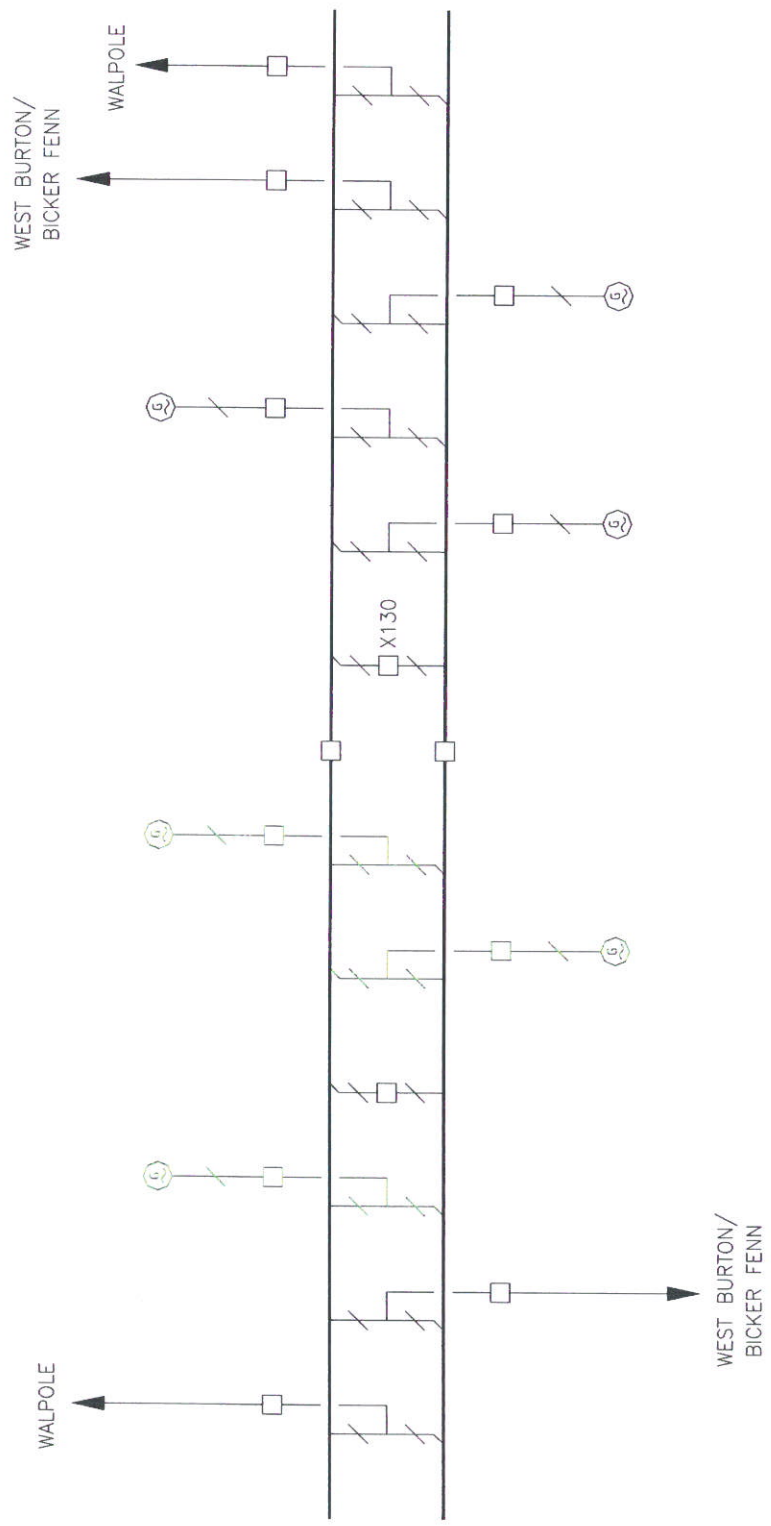
Description	Source	Type	Work	Provided by	Notes
MW and Mvar for each Balancing Mechanism Unit and Station Supplies.	Boundary Point Metering System	Unit per Pulse	Provide dedicated outputs from the Metering System 'check' meters. Supply and install wiring to The Company OMS-FE.	User.	Used for Despatch Instructions and Ancillary Services Monitoring (ASM).
Individual alternator MW and Mvar (applicable to multi-shaft machines).	Transducer or high accuracy output from User metering.	4-20 or 10-0-10mA analogue or Unit per Pulse	Provide MW and Mvar transducer of high accuracy outputs. Supply and install wiring to The Company common equipment bay area marshalling point.	User	Used for Network Modelling and ASM. If The User chooses to use transducers, the quality is to be agreed with The Company .
Individual unit transformer MW and Mvar.	Transducer or high accuracy output from User metering.	4-20 or 10-0-10mA analogue	Provide MW and Mvar transducer of high accuracy outputs. Supply and install wiring to The Company common equipment bay area marshalling point.	User.	Used for Network Modelling. If The User chooses to use transducers, the quality is to be agreed with The Company .
Voltage for each generator bay connection to The Company substation.	Single Phase VT (usually a CVT)	AC Waveform	Provide VT secondary output (single phase). Supply and install transducer and wiring to The Company common equipment bay area marshalling point.	User.	For indication purposes. To feed Substation Voltage Selection Scheme. The Company to install Voltage Selection Scheme at The Company substation as required.
Frequency	2 VT (Single Phase) outputs per station.	AC Waveform	Provide VT secondary outputs (single phase). Supply and install wiring to The Company common equipment bay area marshalling point.	User.	Used for ASM.
All generator circuit(s) HV and LV circuit breaker(s) and disconnector(s)	Double point off dedicated auxiliary contacts (1 n/o and 1 n/c).	Status Indication	Wire out and cable between auxiliary contacts and The Company common equipment bay area marshalling point	User , in switchgear.	Dedicated auxiliary contacts are required. Repeat relays are not normally acceptable.
Unit transformer circuit breaker(s).	Double point off dedicated auxiliary contacts (1 n/o and 1 n/c).	Status Indication	Wire out and cable between auxiliary contacts and The Company common equipment bay area marshalling point	User , in switchgear.	Dedicated auxiliary contacts are required. Repeat relays are not normally acceptable.
Each generator transformer Tap Position Indication (TPI)	Dedicated tap changer auxiliary contact arm.	Tap Position status Indication	Provide 'one out of (up to) 19' position indications or TPI transducer indication. Wire out and cable between dedicated auxiliary contact arm and The Company common equipment bay area marshalling point.	User , in transformer tapchanger.	Used for Network Modelling and ASM.

Note: For the avoidance of doubt the term 'Boundary Point Metering System' is that as defined in the Balancing and Settlement Code.

Appendix F5 - Schedule 3
 Site Specific Technical Conditions – Dynamic System Monitoring (CC.6.6.1)

Description	Source	Type	Work	Provided by	Notes
Balancing Mechanism Unit and station supplies 3 phase voltage at The Company Substation.	Voltage Transformer (preferably HV side)	Analogue	Supply and install VT and wiring to The Company common equipment bay area marshalling point.	User	Preferably from HV 3ph Boundary Point Metering System VT. If not practical then CVT yellow phase only, class 1/3P
Balancing Mechanism Unit and station supplies 3 phase current, at The Company Substation.	Current Transformer	Analogue	Supply and install CT and wiring to The Company common equipment bay area marshalling point.	User	Current Transformers, 3 phases, class 1 measurement, with 5P10/5P20 protection rating.
User circuit breaker/busbar selector disconnector status at The Company Substation.	Double point off auxiliary contacts (1 n/o and 1 n/c)	Status Indication	Wire out and cable between auxiliary contacts and The Company common equipment bay area marshalling point	User , in switchgear	Dedicated auxiliary contacts are not necessary.
Monitoring equipment on The Company bays at Spalding North 400kv Substation.	Various	Analogue/ Status Indication and Power Supply	Supply and Install Dynamic System Monitoring equipment.	User	Installation to be carried out by The Company .

SPALDING NORTH 400kV SUBSTATION ASSETS DIAGRAM
 (Suitable for Commercial Purposes only – not for use as an Operational Diagram)



KEY
 — National Grid Assets
 - - - User Assets

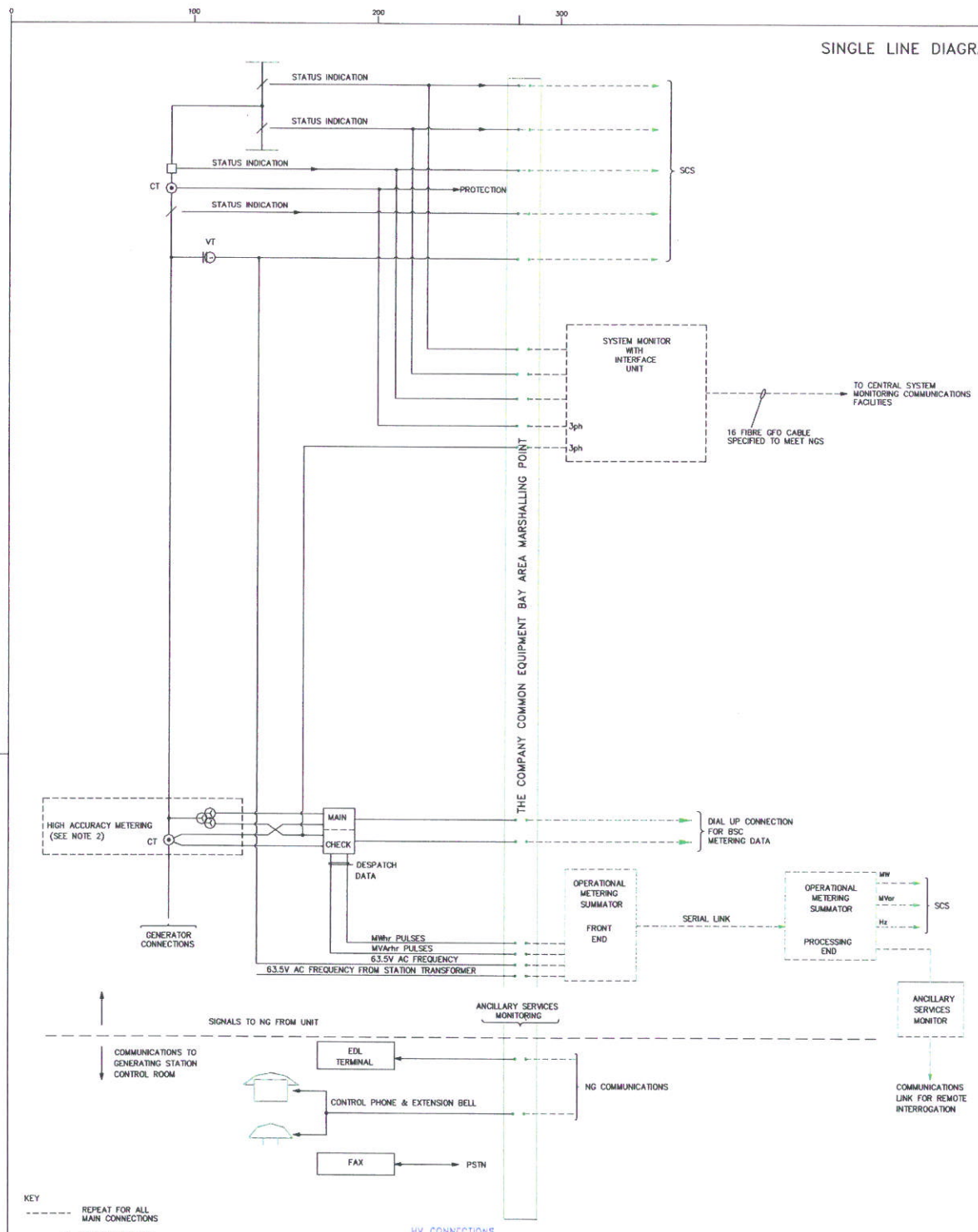
DATE	05-09-2008
CUSTOMER	INTERGEN (UK) LTD
TYPE OF CHARGE	ENTRY
CONT. NO. REF.	A/INGEN-SHP/08/5269-1EN(0)

SUBSTATION ASSETS DIAGRAM SPALDING NORTH 400kV	
Station	SPALDING NORTH
Circuit	
Doc No	42/789510
Rev No	1
SCALE-	N/A
Work Ref	E1339

UNCONTROLLED COPY
 NOT SUBJECT TO
 REVISION SERVICING

ISSUE	B
DRAWN	J.W. 04-09-08
CHECKED	F.K. 04-09-08
APPR'D	F.K. 04-09-08
RECORDED	
FILMED	
DRG No	WAS INDDRECT
DRG No	WAS INDDRECT

SINGLE LINE DIAGRAM



KEY
 - - - - - REPEAT FOR ALL MAIN CONNECTIONS
 * WHERE INSTALLED
 EQUIPMENT SUPPLIED BY USER SHOWN BLACK
 EQUIPMENT SUPPLIED BY NG SHOWN GREEN
 SCS - SUBSTATION CONTROL SYSTEM
 BCS - BALANCING AND SETTLEMENT CODE

NOTES:
 1 CUSTOMER TO PROVIDE THE NECESSARY CONNECTIONS FOR THE INSTALLATION OF SYSTEM MONITORING EQUIPMENT.
 2 ALL POINTS OF ACCESS TO BOUNDARY POINT METERING EQUIPMENT INSTRUMENT TRANSFORMER SECONDARY WIRING SHOULD BE PROVIDED WITH APPROPRIATE ACCESS CONTROL FACILITIES

ISSUE	B
DRAWN/DATE	J.W. 02-09-08
CHECKED/DATE	F.K. 02-09-08
APPROVED/DATE	F.K. 02-09-08
RECORDED	
FILED	

UNCONTROLLED COPY
 NOT SUBJECT TO
 REVISION SERVICING

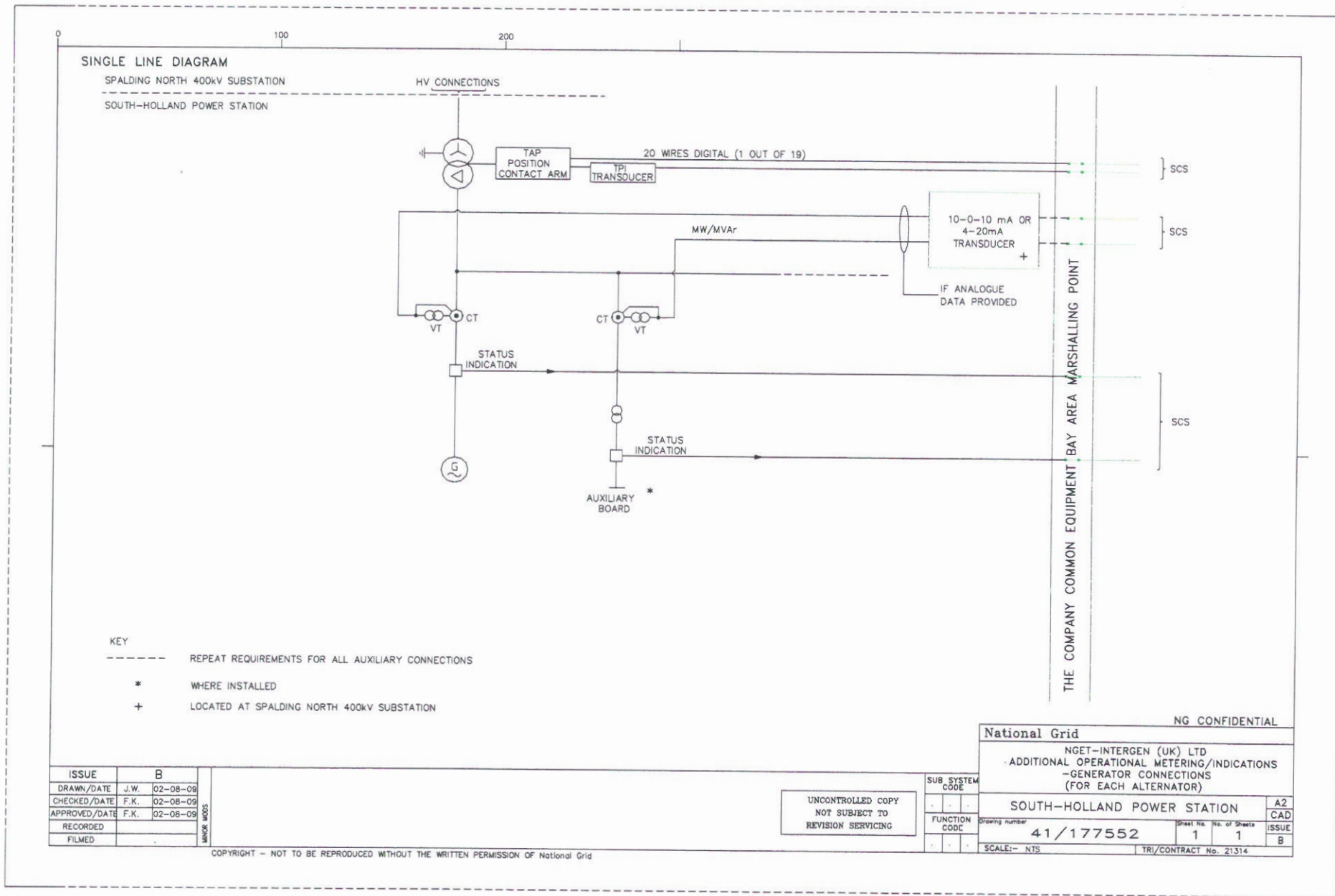
SUB SYSTEM CODE		Drawing number		Sheet No. of Sheets	
FUNCTION CODE		41/177551		1 1	
SCALE:- N/A		TRI/CONTRACT No. 21314		A1P CAD ISSUE B	

COPYRIGHT - NOT TO BE REPRODUCED WITHOUT THE WRITTEN PERMISSION OF National Grid

COMMERCIAL IN CONFIDENCE

National Grid
 NGET-INTERGEN (UK) LTD
 INSTRUMENTATION AND CONTROL
 INTERFACE AT SPALDING NORTH 400kV
 HV CONNECTIONS

SOUTH HOLLAND POWER



ISSUE	B	
DRAWN/DATE	J.W.	02-08-09
CHECKED/DATE	F.K.	02-08-09
APPROVED/DATE	F.K.	02-08-09
RECORDED		
FILMED		

MAJOR MODS

COPYRIGHT - NOT TO BE REPRODUCED WITHOUT THE WRITTEN PERMISSION OF National Grid

UNCONTROLLED COPY
NOT SUBJECT TO
REVISION SERVICING

SUB SYSTEM CODE	
FUNCTION CODE	

NG CONFIDENTIAL

National Grid	
NGET-INTERGEN (UK) LTD ADDITIONAL OPERATIONAL METERING/INDICATIONS -GENERATOR CONNECTIONS (FOR EACH ALTERNATOR)	
SOUTH-HOLLAND POWER STATION	
Sheet No.	No. of Sheets
41/177552	1 1
SCALE:- NTS	TRI/CONTRACT No. 21314

APPENDIX A

THE CONNECTION SITE AND TRANSMISSION CONNECTION ASSETS

User: INTERGEN (UK) LTD
Connection Site: Spalding North 400kV Substation
Type: Entry

Part 1 - Pre-Vesting Assets

<u>Allocation</u>	<u>Description</u>	<u>Age</u>	<u>Year</u>
	There are no Pre-Vesting Assets for this Agreement		01/04/2022

Part 2 - Post-Vesting Assets

<u>Allocation</u>	<u>Description</u>	<u>Age</u>	<u>Year</u>
	There are no Post-Vesting Assets for this Agreement		01/04/2022

Part 3 - Energy Metering Systems (*)

<u>Allocation</u>	<u>Description</u>	<u>Age</u>	<u>Year</u>
	There are no FMS Assets for this Agreement		01/04/2022

All the above are inclusive of civil engineering works. At double busbar type substations, ownership of main and reserve busbars follows ownership of section switches.

Diagram Reference: 42/789510 - Issue B

Appendix Reference: InterGen (UK) Limited – South Holland Power

Agreement Reference: A/INGEN-SHP/08/5269-1EN(0)

APPENDIX B

CONNECTION CHARGES

User: INTERGEN (UK) LTD
Connection Site: Spalding North 400kV Substation
Type: Entry

(1) **Connection Charges**

The Connection Charges set out below may be revised in accordance with the terms of this Bilateral Connection Agreement and/or the Construction Agreement and/or the CUSC and/or the Charging Statements

Part 1 - Pre-Vesting Assets

There are no Pre-Vesting Assets for this Agreement.

Part 2 - Post-Vesting Assets

There are no Post-Vesting Assets for this Agreement.

Part 3 - Energy Metering Systems

There are no FMS Assets for this Agreement.

Part 4 - Land Charges

There are no land charges for this Agreement.

Part 5 - Miscellaneous Charges

There are no miscellaneous charges for this Agreement

Part 6 - One-off Charges

There are no One-off charges for this Agreement

(2) **Payment**

The Connection Charges in Parts 1 to 5 shall be payable in equal monthly instalments as specified in Paragraph 6.6 of the CUSC.

Appendix Reference: InterGen (UK) Limited – South Holland Power

Agreement Reference A/INGEN-SHP/08/5269-1EN(0)

APPENDIX C

CONNECTION ENTRY CAPACITY AND TRANSMISSION ENTRY CAPACITY

User: INTERGEN (UK) LTD
Connection Site: Spalding North 400kV Substation
Type: Entry

With effect from the Charging Date

Part 1 Connection Entry Capacity

Connection Entry Capacity expressed as an instantaneous MW figure:

	CEC (MW)
Power Station	900

Part 2 Transmission Entry Capacity

Transmission Entry Capacity (TEC) expressed as average MW over a half-hour settlement period:

	TEC (MW)
Power Station	840

Part 3 BM Units Comprising Power Station

To be confirmed.

Part 4 Short Term Transmission Entry Capacity

Not applicable.

Part 5 Limited Duration Transmission Entry Capacity (Block Offer)

Not applicable.

Part 6 Temporary TEC Exchange

Not applicable.

