APPENDIX B1

ONE OFF WORKS

User:	Spalding Energy Expansion Limited
Connection Site:	Spalding North 400kV Substation

The One Off Works comprise the following:

Stage 1

None identified at this time.

Stage 2

None identified at this time.

APPENDIX H – STAGE 1

TRANSMISSION REINFORCEMENT WORKS

User:	Spalding Energy Expansion Limited
Connection Site:	Spalding North 400kV Substation

The Transmission Reinforcement Works Stage 1 comprise the following:

Part 1 – Enabling Works

1.1 Attributable

The Enabling Works for Stage 1 (OCGT connection) have been completed.

1.2 Non-Attributable

The Enabling Works for Stage 1 (OCGT connection) have been completed.

Part 2 – Wider Transmission Reinforcement Works

2.1 – Wider Transmission Reinforcement Works which do not require a Connect and Manage Derogation

As contained within the Network Options Assessment (NOA) publication available:
https://www.nationalgrideso.com/insights/network-options-assessment-noa

2.2 – Wider Transmission Reinforcement Works which are the subject of the Connect and Manage Derogation

As contained within the Network Options Assessment (NOA) publication available:
https://www.nationalgrideso.com/insights/network-options-assessment-noa

And in each of Part 1 and Part 2:

1. Protection and control modifications as required.
2. Associated civil works.
3. Miscellaneous and minor works.

APPENDIX H – STAGE 2

TRANSMISSION REINFORCEMENT WORKS

User: Spalding Energy Expansion Limited

Connection Site: Spalding North 400kV Substation

The Transmission Reinforcement Works Stage 2 comprise the following:

Part 1 – Enabling Works

1.1 Attributable

1. To modify existing protection and control systems to facilitate the User's BESS project. (**101384-202711**)

2. To provide SAP and Commissioning Support. (**101384-202711**)

3. Transfer King's Lynn B – Walpole 400kV circuit (Necton-Norwich-Walpole 400kV circuit 1) onto Main and Reserve bus section 2 at Walpole 400kV substation. (**030447-030447**)

4. At Walpole 400kV Substation: uprate the disconnector and feeder protection on the future King's Lynn-Walpole 400kV circuit to provide a post-fault winter rating of 3680MVA. (**100676-201432**)

1.2 Non-Attributable

1. Construct a new 400kV double circuit between the Bramford 400kV substation and the Twinstead Tee point strung with 3x700mm^2 AAA cconductor at 75°C. At Twinstead Tee rearrange the overhead line circuit to form the Bramford-Pelham double circuit and Bramford-Braintree-Bulls Lodge and Bramford-Braintree-Rayleigh Main 400kV double circuit (BTNO Works). **(021847-021847)**

2. Post-completion of BTNO works, reconductor Bramford-Pelham 1 400kV circuits with 3 x 700mm^2 AAAC conductors to achieve a post-fault winter rating of 3100MVA. (**033461-033461**)

3. Post-completion of BTNO works, reconductor Bramford-Pelham-2 400kV circuits with 3 x 700mm^2 AAAC conductors to achieve a post-fault winter rating of 3820MVA. (**100708-201475**)

Part 2 – Wider Transmission Reinforcement Works

2.1 – Wider Transmission Reinforcement Works which do not require a Connect and Manage Derogation

As contained within the Network Options Assessment (NOA) publication available:
https://www.nationalgrideso.com/insights/network-options-assessment-noa

2.2 – Wider Transmission Reinforcement Works which are the subject of the Connect and Manage Derogation

As contained within the Network Options Assessment (NOA) publication available:
https://www.nationalgrideso.com/insights/network-options-assessment-noa

And in each of Part 1 and Part 2:

1. Protection and control modifications as required.

2. Associated civil works.

3. Miscellaneous and minor works.

APPENDIX I

USER'S WORKS

User:	Spalding Energy Expansion Limited
Connection Site:	Spalding North 400kV Substation

The User's Works comprise the following:

Stage 1

1. The User's Works for Stage 1 (OCGT connection) have been completed.

Stage 2

1. The User is to achieve consents for their proposed BESS.
2. The User is to construct a new BESS generator at the proposed site south of Spalding North 400kV substation and connect into the existing generator bay at a level consistent with the Connection Entry Capacity as set out in Appendix C of the Bilateral Connection Agreement.
3. Protection and control modifications as required
4. Associated civil works
5. Miscellaneous and minor works

APPENDIX J

CONSTRUCTION PROGRAMME

User: Spalding Energy Expansion Limited.

Connection Site: Spalding North 400kV Substation

For the avoidance of doubt, the Construction Works Stage 1 and User's Works Stage 1 have been completed and the milestones in the Construction Programme below relate to the Construction Works Stage 2 and the User's Works Stage 2.

The Construction Programme comprises the following:

User Requirements		
1	The date by which the User is to apply for Planning Consent	30 January 2023
2	The date by which the User is to achieve Planning Consent	30 December 2023
3	Data exchange as outlined in the Technical Appendices (Appendix F (Part II - Storage) to the Bilateral Connection Agreement)	31 July 2028
4	The date by which the User is to achieve Financial Investment Decision	31 December 2028
5	The date by which the User's main procurement/construction and installation contracts have been let	28 February 2029
6	The date by which final diagrams are exchanged and agreed between the Relevant Transmission Licensee and the User	30 September 2029
7	The date by which the User is to confirm to the Relevant Transmission Licensee the design of the User's substation bay	31 October 2029
8	User first site access to the Relevant Transmission Licensee's Connection Site	31 December 2029
9	User clear to start works at the Relevant Transmission Licensee's Connection Site	31 January 2030
10	The date by which all User's Works are to be completed	01 June 2030

Pre-Construction

Optioneering		
1	The date by which the Relevant Transmission Licensee should review the relevant reinforcement works to deliver a compliant connection	30 October 2028

Construction

Tendering		
1	The date by which the Relevant Transmission Licensee will commence the tender process for the Transmission Reinforcement Works at the Connection Site	30 June 2029
Contract Award		
2	The date by which the Relevant Transmission Licensee will award contracts for the Transmission Reinforcement Works at the Connection Site	30 September 2029

Equipment Order		
3	The date by which the Relevant Transmission Licensee will place orders for equipment for the Transmission Reinforcement Works at the Connection Site	30 September 2029
Construction / Commissioning		
4	Completion Date Stage 1 (OCGT Connection)	Complete
5	The date by which the detailed requirements in relation to the intertrip communications links, trip facilities and monitoring facilities have been discussed and agreed between the User and the Relevant Transmission Licensee	31 August 2029
6	The date by which the interfacing and connection arrangements for the Dynamic System Monitoring data at the Connection Site have been discussed and agreed between the User and the Relevant Transmission Licensee as defined in Appendix F (Part II - Storage) of the Bilateral Connection Agreement	31 August 2029
7	The date by which the detailed requirements in relation to the metering equipment (the meters and communication links) have been discussed and agreed between the User and the Relevant Transmission Licensee as defined in Appendix F (Part II - Storage) of the Bilateral Connection Agreement	31 August 2029
8	Commissioning Programme Commencement Date	01 January 2030
9	Backfeed (i.e. demand energisation)	30 June 2030
10	Completion Date Stage 2	30 October 2030
11	Backstop Date	30 September 2032

Notes:
1. The Construction Programme is based upon the assumption that both parties agree outages.
2. These dates may be amended by agreement of both parties.

APPENDIX MM

ATTRIBUTABLE WORKS AND KEY CONSENTS

User: Spalding Energy Expansion Limited

Connection Site: Spalding North 400kV Substation

Part 1: Attributable Works

Component	LARF	SIF	Distance Factor
030447-030447	0.00%	20.90%	100%
100676-201432	0.00%	20.90%	100%
101384-202711	0.00%	100.00%	100%

Part 2: Key Consents

The consent and/or planning permission required to construct the Power Station granted (as appropriate and depending on location and size of Power Station) under or pursuant to Section 36 of the Act, the Planning Act 2008, the Town and Country Planning Act 1990 and Town and Country Planning (Scotland) Act 2006 and the discharge of such conditions attached to that consent and/or planning permission as The Company acting reasonably shall require.

APPENDIX N

THIRD PARTY WORKS

User:	Spalding Energy Expansion Limited
Connection Site:	Spalding North 400kV Substation

The Third Party Works comprise the following:

Subject to studies to be completed by any affected Third Party, reinforcement works may be triggered on their system. Neither The Company nor the Relevant Transmission Licensee will be liable for any Third Party Works triggered.

APPENDIX OO

USER'S DATA

User: Spalding Energy Expansion Limited

Connection Site: Spalding North 400kV Substation

The User's Data for the BESS comprises the following:

Generating Unit Data	**Units**	**Value**
Number of identical units to which this data applies	Power park units	Phase 1: 30 Phase 2: 25
Prime Mover	Text	Invertor-connected BESS modules
Electrical Machine Type	Text	Non-synchronous
Power Park Unit Rated MW	MW	10
Power Park Unit Rated MVA	MVA	10.5
Rated Terminal Voltage	kV	33
Maximum Generation (Capacity)	MW	550
Minimum Generation	MW	TBC

Generator Transformer Data	**Units**	**Value**
Number of identical units to which this data applies		1
Voltage Ratio	kV	400/33
Rated MVA	MVA	Phase 1: 350 (SGT5) Phase 2: 295 (SGT6)
Positive Sequence Reactance (% on rating MVA)	%	Phase 1: 14.7% (SGT5) Phase 2: 15.0% (SGT6)