

THIS AGREEMENT made by and between:

[Name of Company], a company duly incorporated and organised under the laws of Singapore, having its registered address at [Address] and its principal place of business for Black Start Capability Services at [Address], who is an Ancillary Service Provider (the “**Ancillary Service Provider**”)

- and -

Energy Market Company Pte Ltd, a company duly incorporated and organised under the laws of Singapore, having its registered address and principal place of business at 4 Shenton Way #03-01 SGX Centre 2 Singapore 068807 (the “**EMC**”).

WHEREAS:

- A The Energy Market Authority of Singapore (the “**Authority**”), in exercise of the powers conferred by the Electricity Act (Cap 89A) has granted an electricity licence authorising the EMC to operate the Singapore Wholesale Electricity Market.
- B From the date of market commencement the EMC on behalf of the Power System Operator (the “**PSO**”) will make arrangements for procurement of ancillary services in accordance with the Market Rules for the Singapore Wholesale Electricity Market (the “**Market Rules**”).
- C From the date of market commencement the **PSO** will maintain the reliability of the Power System in accordance with the Market Rules, and will determine requirements for Ancillary Services based on the applicable Reliability Standards and prevailing conditions.
- D The Market Rules provide that the EMC shall enter Ancillary Service Contracts including contracts for:
 - (a) Reactive Support and Voltage Control Services (no immediate requirement);
 - (b) Black Start Capability Services;
 - (c) Fast Start Services; and
 - (d) Reliability Must-Run Services (no immediate requirement).
- E As provided by the Market Rules:
 - (a) the PSO has notified the Ancillary Service Provider (to the relevant extent) of the requirements for Ancillary Services referred to in Recital C;
 - (b) the PSO has administered tests to determine which facilities are suitable to be Registered Facilities for the provision of Ancillary Services;
 - (c) the EMC has registered certain of the Ancillary Service Provider’s facilities as Registered Facilities for the provision of Ancillary Services; and
 - (d) the PSO has requested the EMC to enter into an Ancillary Service Contract with the prospective Ancillary Service Provider.

- F The Ancillary Service Provider and the EMC wish to enter into this Agreement as an Ancillary Service Contract in accordance the relevant provisions of the Market Rules as described in Recitals D and E.
- G In consideration of the mutual covenants set forth herein and of other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, the Parties agree as follows:

ARTICLE 1
INTERPRETATION

- 1.1 **Incorporation of other definitions:** Except where defined in Article 1.2 below, capitalised expressions used in this Agreement have the meanings ascribed to the same expressions that are italicised expressions defined in Chapter 8 of the Market Rules;
- 1.2 **Supplementary Definitions:** In this Agreement, the following capitalised expressions have the meanings set out below unless the context otherwise requires:

“Agreement” means this Agreement, including the recitals and any schedules to this Agreement, and the expressions “hereof”, “herein”, “hereto”, “hereunder”, “hereby” and similar expressions refer to this Agreement and not to any particular section or other portion of this Agreement.

“Assignment of this Agreement” by the Ancillary Service Provider means:

- (a) the Ancillary Service Provider assigning or transferring any or all of the Contracted Ancillary Service Resources to another party;
- (b) any sale, transfer, mortgage, pledge, assignment or relinquishment of any rights conferred on the Ancillary Service Provider by this Agreement;
- (c) the passing by operation of law to any other party or parties of the Ancillary Service Provider’s interest in this Agreement or any part thereof;
- (d) the Ancillary Service Provider purporting to declare or acknowledge that the Ancillary Service Provider’s interest in this Agreement or any part thereof, is held upon trust for another party;
- (e) the Ancillary Service Provider agreeing to any other action whereby the rights and obligations of the Ancillary Service Provider under this Agreement is directly or indirectly transferred.

“Commencement Date” means the date on which the Ancillary Service Provider will commence provision of the Contracted Ancillary Services, being the Commencement Date set out in Schedule A.

“Completion Date” means the date on which the Ancillary Service Provider will cease provision of the Contracted Ancillary Services, being the Completion Date set out in Schedule A.

“Party” means either the EMC or the Ancillary Service Provider (as the context permits) as a party to this Agreement; and “Parties” means every Party.

“Term” means the period during which the Ancillary Service Provider will provide the Contracted Ancillary Services commencing on the Commencement Date and terminating on the Completion Date.

1.3 **Interpretation:** In this Agreement, unless the context otherwise requires:

- (a) words importing the singular include the plural and vice versa;
- (b) words importing a gender include any gender;
- (c) when capitalised, other parts of speech and grammatical forms of a word or phrase defined in this Agreement have a corresponding meaning;
- (d) any expression importing a natural person includes any company, partnership, trust, joint venture, association, corporation or other private or public body corporate, and any government agency or body politic or collegiate;
- (e) a reference to the Ancillary Service Provider includes the Ancillary Service Provider’s Personnel as the context requires;
- (f) a reference to a thing includes a part of that thing;
- (g) a reference to an article or to a section, subsection, provision, condition, part, paragraph or schedule is to an article or a section, subsection, provision, condition, part, paragraph or schedule of this Agreement;
- (h) a reference to any statute, subsidiary legislation, proclamation, ordinance, by-law, resolution, rule, order, supplements, gazette notification or directive includes all statutes, subsidiary legislation, proclamations, ordinances, by-laws, resolutions, rules, orders, supplements, gazette notifications or directives modifying, consolidating, re-enacting, extending or replacing it and a reference to a statute includes all subsidiary legislation, proclamations, ordinances, by-laws, resolutions, rules, orders, supplements, gazette notifications and directives of a legislative nature issued under that statute;
- (i) a reference to a document or a provision of a document, including this Agreement and the Market Rules or a provision of this Agreement or the Market Rules, includes a Modification of or supplement to, or replacement or novation of, that document or that provision of that document, as well as any exhibit, schedule, appendix or other annexure thereto;
- (j) a reference to a person includes that person’s heirs, executors, administrators, successors, substitutes (including persons taking by novation) and permitted assigns
- (k) a reference to a person (including an institute, association or authority), whether statutory or not, which ceases to exist or whose functions are transferred to another person is a reference to the person that replaces it or that substantially succeeds to its functions, powers or duties;
- (l) a reference to articles or sections of a document, including this Agreement and the Market Rules, separated by the word “to” (e.g. “sections 1.1 to 1.4”) shall be a reference to the articles or sections inclusively;

- (m) the word “including” means “including but not limited to”;
- (n) unless the context otherwise requires, a reference to an account shall include a reference to any settlement or financial accounting balance established in association with, and to information associated with, the contractual relationship that underlies the account;
- (o) a reference to the Market Rules includes a reference to:
 - (i) any Market Manual adopted by the Board of Directors of the EMC and approved by the Authority pursuant to section 8 of Chapter 1 of the Market Rules; and
 - (ii) the System Operation Manual adopted by the PSO pursuant to section 9 of Chapter 1 of the Market Rules;
- (p) nothing in this Agreement shall be taken as requiring the Ancillary Service Provider to do or omit to do any act, matter or thing in accordance with directions, instructions, notices, requirements, approvals or other similar acts by the PSO unless such directions, instructions, notices, requirements, approvals or other acts are lawfully given or performed by the PSO pursuant to and in accordance with its functions, powers and duties under relevant legislation, market rules, electricity licenses and codes of practice provided that the Ancillary Service Provider shall be entitled to assume that any directions, instructions, requirements, approvals or other similar acts by the PSO is so given or performed.

- 1.4 **Headings for Convenience only:** The division of this Agreement into articles and sections and the insertion of headings are for convenience of reference only and shall not affect the interpretation of this Agreement, nor shall they be construed as indicating that all of the provisions of this Agreement relating to any particular topic are to be found in any particular article, section, subsection, provision, condition, part or schedule.

ARTICLE 2

AGREEMENT TO PROVIDE SERVICES

- 2.1 **Agreement to provide Ancillary Services:** The EMC and the Ancillary Service Provider agree that the Ancillary Service Provider will provide the Contracted Ancillary Services described in Schedule B2 in accordance with the valid instructions of the PSO throughout the Term in consideration of payments calculated in accordance with Schedule C and subject to the terms and conditions of this Agreement.
- 2.2 **Agreement to keep resources available:** The Ancillary Service Provider agrees to make its best endeavours to keep the Contracted Ancillary Service Resources fully available for provision of Contracted Ancillary Services throughout the Term, as far as is practically possible and in any event not less than the minimum resource availability time as specified in Schedule B2.
- 2.3 **Agreement to act as directed by the PSO:** The Ancillary Service Provider agrees to act as directed by the PSO including (as applicable) the following actions:

- (a) take any actions as directed by the PSO in respect of any Contracted Ancillary Service Resource described in Schedule B1 providing Reactive Support and Voltage Control Services, to maintain stable voltage levels in accordance with all applicable Reliability Standards to prevent the collapse of voltages on the Power System;
- (b) take any actions as directed by the PSO in respect of any Contracted Ancillary Service Resource described in Schedule B2 providing Black Start Capability services, to satisfy the requirements of the Singapore Power System Restoration Plan and all applicable Reliability Standards;
- (c) take any actions as directed by the PSO when dispatching any Contracted Ancillary Service Resource described in Schedule B3 providing Fast Start Services, in accordance with all applicable Reliability Standards;
- (d) take any actions as directed by the PSO when dispatching any Contracted Ancillary Service Resource described in Schedule B4 providing Reliability Must-Run Services, in accordance with all applicable Reliability Standards; and
- (e) ensure that the Dispatch Coordinator for each Contracted Ancillary Service Resource in respect of each Contracted Ancillary Service Resource will at all times comply with the provisions of this Agreement, the requirements of section 8.3 of Chapter 5 of the Market Rules and all other applicable requirements of/including the Transmission Code;

provided that nothing herein shall be construed as requiring the Ancillary Service Provider to take any action which exceeds the service and quality standards specified in this Agreement or as may be determined by the PSO with the consent of the Ancillary Service Provider, which consent shall not be unreasonably withheld.

ARTICLE 3

HIERARCHY OF AUTHORITIES

- 3.1 Nothing in this Agreement shall be construed as affecting the obligation of the Parties to comply with the provisions of relevant legislation, rules, electricity licences and codes of practice. In the event of inconsistency between this Agreement and the provisions of any relevant legislation, market rules, electricity licences and codes of practice, then the latter shall prevail to the extent of the inconsistency.

ARTICLE 4

REPRESENTATIONS AND WARRANTIES

- 4.1 **Representations and Warranties of the Ancillary Service Provider:** The Ancillary Service Provider hereby represents and warrants the following to the EMC, and acknowledges that the EMC and/or the PSO may be relying on such representations and warranties without independent inquiry (save and except for any testing or inspection that the EMC and/or the PSO may have participated in or in respect of any information which the EMC and/or the PSO has received from the Ancillary Service Provider under and in accordance with the Market Rules):

- (a) that it has the capacity to enter into and to perform and complete its obligations under this Agreement;

- (b) that the representative executing this Agreement on its behalf is duly authorised to execute this Agreement and has the full power and authority to bind it;
- (c) that it has taken all necessary legal action to authorise the entry into and performance of this Agreement and its obligations under this Agreement;
- (d) that this Agreement constitutes a legal and binding obligation on it, enforceable against it in accordance with the terms of this Agreement;
- (e) that it has (or will have by the Commencement Date) adequate qualified employees and other resources within the ambit of the Contracted Ancillary Service Resources and that the Contracted Ancillary Services will be fit for the purpose for which they are intended in that they conform to the service and quality standards specified in this Agreement or as may be determined by the PSO with the consent of the Ancillary Service Provider, which consent shall not be unreasonably withheld;
- (f) that the Contracted Ancillary Services will be provided with due care, skill, attention and timeliness;
- (g) that it holds (or will hold by the Commencement Date) all permits, licences and other authorisations that may be necessary to enable it to provide the Contracted Ancillary Services;
- (h) that it has (to the extent required by the PSO) demonstrated through physical tests or other appropriate means specified by the PSO that each of the Contracted Ancillary Service Resources identified in Schedule B2 meets the applicable performance standards referred to in the Market Rules and has been registered as a Registered Facility;
- (i) that it will maintain each Contracted Ancillary Service Resource identified in Schedule B2 in a fit and proper condition and will ensure that each such resource continues to meet the requirements for a Registered Facility to provide the applicable Contracted Ancillary Services; and
- (j) that it will co-operate with the PSO and participate in physical tests or other appropriate means specified by the PSO from time to time to verify and ensure that each Registered Facility or Contracted Ancillary Service Resource continues to meet the applicable performance standards referred to in the Market Rules.

4.2 **Representations and Warranties of the EMC:** The EMC hereby represents and warrants as follows to the Ancillary Service Provider, and acknowledges that the Ancillary Service Provider may be relying on such representations and warranties without independent inquiry:

- (a) that it has the capacity to enter into and to perform and complete its obligations under this Agreement;
- (b) that the representative executing this Agreement on its behalf is duly authorised to execute this Agreement and has the full power and authority to bind it;
- (c) that it has taken all necessary legal action to authorise the entry into and performance of this Agreement and its obligations under this Agreement;

- (d) that this Agreement constitutes a legal and binding obligation on it, enforceable against it in accordance with the terms of this Agreement.

ARTICLE 5
AGREEMENT TERM

- 5.1 **Agreement Term:** This Agreement shall come into force on the Commencement Date identified in Schedule A and remain in force until the Completion Date identified in Schedule A, unless terminated at an earlier date in accordance with the terms of this Agreement. In any event the Agreement Term shall not exceed one year, in accordance with Chapter 5 of the Market Rules.
- 5.2 **Surviving Obligations of the Ancillary Service Provider:** Neither the Completion Date or termination of this Agreement for any other reason shall release the Ancillary Service Provider from any obligations relating to this Agreement that by their nature survive the Completion Date or termination, including all ongoing warranties, liabilities, indemnities, or confidentiality obligations.

ARTICLE 6
SUSPENSION AND TERMINATION

- 6.1 **Automatic Termination:** This Agreement shall automatically terminate on the earlier of:
 - (a) the date of issuance to the Ancillary Service Provider of a Termination Order by the EMC;
 - (b) the date on which the Ancillary Service Provider's Electricity Licence expires or is withdrawn by the issuing authority; or
 - (c) the Completion Date identified in Schedule A.
- 6.2 **Suspension of Services:** The EMC shall, in consultation with the PSO and with the PSO's written consent, have the right to order a temporary suspension of part or all of the Contracted Ancillary Services under this Agreement, if the Ancillary Service Provider fails to remedy within a reasonable time of receiving notice (which shall not be less than 14 days) all matters that may give rise to suspension. The circumstances that may give rise to suspension are:
 - (a) when, in the reasonable opinion of the EMC and the PSO, provision of such Contracted Ancillary Services:
 - (i) fails to meet the specified service or quality standard referred to in this Agreement or as advised by the PSO with the consent of the Ancillary Service Provider, which consent shall not be unreasonably withheld, from time to time; or
 - (ii) is conducted in a manner which materially contravenes the Market Rules, a relevant Electricity Licence, or other relevant authority, or other terms of this Agreement;

- (b) when, in the reasonable opinion of the EMC and the PSO, a Contracted Ancillary Service Resource:
 - (i) fails a test performed pursuant to section 4.11 of Chapter 5 of the Market Rules; or
 - (ii) repeatedly fails to respond in accordance with the operational parameters specified in Schedule B2 for that Contracted Ancillary Service Resource, or to meet the standard of availability specified in Schedule B for that class of Ancillary Service; or
 - (c) if, after due consideration and examination as may be provided by any applicable provision of the Market Rules, Codes or Electricity Licences, in the reasonable opinion of the PSO, any of the Ancillary Service Provider's Contracted Ancillary Service Resources do not or will not meet the performance and availability standards prescribed in Article 11.2.
- 6.3 **Resumption of Services:** The EMC will authorise resumption of the suspended Contracted Ancillary Services once the cause giving rise to the suspension has been remedied to the satisfaction of the EMC and the PSO, including (as applicable) satisfaction of the requirements of section 4.12 of Chapter 5 of the Market Rules.
- 6.4 **Termination for Cause:** Subject to Article 6.1, the following provisions shall govern termination for cause:
- (a) If either Party is in breach of any of its obligations under this Agreement, (which in respect of the Ancillary Service Provider includes all matters that may give rise to suspension under Article 6.2), the non-defaulting Party may by notice in writing to the defaulting Party require the defaulting Party to institute remedial action. Where that breach is incapable of being remedied, reference in this article to remedial action shall be read as a reference to all action reasonably necessary to ensure that such breach does not recur.
 - (b) If the defaulting Party is the EMC and EMC fails to institute remedial action to the reasonable satisfaction of the Ancillary Service Provider within 14 days notice in writing to EMC (or such other period as may be specified in the notice or agreed between the Parties), then the Ancillary Service Provider shall be permitted to terminate this Agreement with the EMC provided that the Ancillary Service Provider has first consulted with and obtained the written consent of the PSO.
 - (c) If the defaulting Party is an Ancillary Service Provider and it fails to institute remedial action to the reasonable satisfaction of the EMC and the PSO within 14 days after the date of the notice referred to in Article 6.2 (or such other period as may be specified in the notice or agreed between the Parties) the EMC and/or the PSO may take such action as is reasonably necessary to rectify such failure or non-compliance, at the expense of the Ancillary Service Provider, and may, in consultation with the PSO and with the PSO's written consent, as the case may be:
 - (i) immediately terminate this Agreement by notice in writing to the Ancillary Service Provider; or

- (ii) re-define the scope of this Agreement to exclude any of the Contracted Ancillary Services materially related to the breach, that are not to the reasonable satisfaction of the EMC and the PSO, and reduce the amount payable to the Ancillary Service Provider by such correspondingly reasonable amount as the EMC considers appropriate for the excluded aspect.
- (d) The EMC may, in consultation with the PSO and with the PSO's written consent, terminate this Agreement or curtail the scope of Contracted Ancillary Services by notice in writing to the Ancillary Service Provider upon occurrence of one or more of the following events (whether or not caused by anything outside the control of the Ancillary Service Provider):
 - (i) if it is or becomes unlawful or in contravention of any applicable Market Rule, Code or Electricity License for the Ancillary Service Provider to perform or observe any of its obligations under this Agreement;
 - (ii) if the Ancillary Service Provider's financial position necessitates the appointment of an official manager, administrator or liquidator (provisional or otherwise) in respect of the Ancillary Service Provider or its property;
 - (iii) if the Ancillary Service Provider enters into an arrangement or compromise with, or assignment for the benefit of all or any class of its creditors or members or a moratorium involving any of them;
 - (iv) if in the reasonable opinion of the EMC and/or the PSO the Ancillary Service Provider is not in a position to continue to fulfil its responsibilities under this Agreement.
- (e) The EMC may, in consultation with the PSO and with the PSO's written consent, terminate this Agreement by notice in writing if:
 - (i) an event of Force Majeure preventing provision by the Ancillary Service Provider of a material obligation continues for more than 60 days; or
 - (ii) if the Ancillary Service Provider fails to remedy to the EMC's and/or the PSO's satisfaction the cause for suspension within 60 days of suspension of Contracted Ancillary Services pursuant to Article 6.2.
- (f) Termination of this Agreement shall not prejudice any claim that one Party has against the other as at the date of termination.

6.5 Payment Upon Suspension or Termination For Cause by the EMC: On suspension or termination for cause under this Article prior to the Completion Date:

- (a) the EMC may require the Ancillary Service Provider to refund any payment it has received for the applicable Contracted Ancillary Service in relation to any period prior to the date of suspension or termination, where results of any tests administered by the PSO and other information available to the PSO indicate that the applicable Contracted Ancillary Service was not or could not have been provided in accordance with the service and quality standards specified in this

Agreement or as may be determined by the PSO with the consent of the Ancillary Service Provider, which consent shall not be unreasonably withheld, during that period; and

- (b) the EMC will:
 - (i) no longer be liable for any costs incurred for the applicable suspended or terminated Contracted Ancillary Service by the Ancillary Service Provider during the period of suspension or following termination;
 - (ii) pay the Ancillary Service Provider such payments as corresponds to the Contracted Ancillary Services provided by the Ancillary Service Provider less any deductions made in accordance with this Agreement; and
 - (iii) be entitled to expend part or all of any monies due or owing to the Ancillary Service Provider under this Agreement to reasonably make good any breach or non-compliance by the Ancillary Service Provider of any condition of this Agreement and to deduct such amounts from any sum payable to the Ancillary Service Provider or otherwise recover any such expenditure from the Ancillary Service Provider.

6.6 **Effect of termination for cause by the Ancillary Service Provider:** Following the termination of this Agreement by the Ancillary Service Provider pursuant to Article 6.4(b), the EMC shall remain subject to and liable for any obligations and liabilities owed to the Ancillary Service Provider under this Agreement in respect of breaches incurred prior to the date of termination, regardless of the date on which such claim is made, subject only to any applicable provisions of the Limitation Act (Cap. 163).

ARTICLE 7

MUTUAL INDEMNITIES AND LIMITATIONS OF LIABILITIES

7.1 **Limitation of Liability:** The provisions of section 13 of Chapter 1 of the Market Rules save for the provisions of section 13.6 and 13.8 of Chapter 1 of the Market Rules, apply to this Agreement for its full duration and are hereby incorporated by reference herein, with all references in such section to a Market Participant being deemed to be a reference to the Ancillary Service Provider for the purposes of this article. For the avoidance of doubt, the Parties agree that, unless otherwise provided, all instructions and directions given by the PSO to the Ancillary Service Provider pursuant to this Agreement should be deemed to be given under the Market Rules, System Operation Manual and/or any applicable codes of practices.

ARTICLE 8

MODIFICATION AND DISPUTE RESOLUTION

8.1 **No Modification Without Written Agreement:** Subject to Article 8.2 and as otherwise provided under this Agreement no modification of this Agreement shall be effective unless made in writing, signed by the Parties and approved by the Authority.

8.2 **Acknowledgement of Modifications:** Each of the Ancillary Service Provider and the EMC acknowledges and confirms that:

- (a) the Market Rules may be Modified from time to time in accordance with the Market Rules and the Act;
- (b) a Market Manual may be Modified by the Board of Directors of the EMC or by a committee of the Board of Directors of the EMC, with the approval of the Authority where required, from time to time in accordance with the Market Rules;
- (c) the System Operation Manual may be modified by the PSO from time to time in accordance with the Market Rules; and
- (d) the Transmission Code and any other Code of Practice may be Modified by the Authority in accordance with the Act and any applicable provisions contained in the Transmission Code or other Code of Practice.

8.3 **Dispute Resolution as Prescribed in the Market Rules:** Notwithstanding anything to the contrary in this Agreement, the provisions of section 3 of Chapter 3 of the Market Rules apply to any dispute arising under this Agreement and are hereby incorporated by reference herein, with all references in such section to a Market Participant being deemed to be a reference to the Ancillary Service Provider for the purposes of this article. Notwithstanding the existence of a dispute, each Party will continue to perform its obligations under this Agreement.

ARTICLE 9 MISCELLANEOUS

- 9.1 **Nature of Relationship:** The Ancillary Service Provider shall render the Contracted Ancillary Services to the EMC as a contractor and is not and cannot be deemed to be in partnership or in a joint venture relationship with the EMC or the PSO. The Ancillary Service Provider shall not, and shall ensure that its employees do not:
- (a) bind or commit or purport to bind or commit the EMC and/or the PSO in any way; or
 - (b) pledge the credit of the EMC and/or the PSO for any purpose whatsoever.
- 9.2 **Assignment by EMC:** The EMC may not assign or transfer, whether absolutely, by way of security or otherwise, all or any part of its rights or obligations under this Agreement without the prior written consent of the Ancillary Service Provider, which shall not be unreasonably withheld. Notwithstanding the foregoing, and for greater certainty, all or a part, as the case may be, of the rights or obligations of the EMC under this Agreement, may, without the consent of the Ancillary Service Provider, be assigned or transferred by the EMC to a person that replaces EMC, in whole or in part, as the person licensed or authorised by the Authority under the Electricity Act (Cap 89A) to operate any wholesale electricity market or enter into any Ancillary Service Contract.
- 9.3 **Assignment by Ancillary Service Provider:** The Ancillary Service Provider may not assign or transfer, whether absolutely, by way of security or otherwise, all or any part of its rights or obligations under this Agreement, and may not assign or transfer any of the Contracted Ancillary Service Resources to another person, without the prior written consent of the EMC which shall not be unreasonably withheld.

- 9.4 **Successors and Assigns:** This Agreement shall ensure to the benefit of, and be binding on, the Parties and their respective heirs, administrators, executors, successors, substitutes (including persons taking by novation) and permitted assigns. Subject to Article 9.3 if the Ancillary Service Provider assigns or transfers any or all of the Contracted Ancillary Service Resources to another person, that person will be bound by this Agreement in respect of the Contracted Ancillary Service Resources that have been assigned or transferred.
- 9.5 **Further Assurances:** Each Party shall promptly execute and deliver or cause to be executed and delivered all further documents in connection with this Agreement that the other Party may reasonably require for the purposes of giving effect to this Agreement.
- 9.6 **Waiver:** A waiver of any default, breach or non-compliance under this Agreement is not effective unless in writing and signed by the Party to be bound by the waiver. No waiver shall be inferred or implied by any failure to act or by the delay in acting by a Party in respect of any default, breach or non-compliance under this Agreement by the other Party or by anything done or omitted to be done by the other Party. The waiver by a Party of any default, breach or non-compliance under this Agreement shall not operate as a waiver of that Party's rights under this Agreement in respect of any continuing or subsequent default, breach or non-compliance (whether of the same or any other nature).
- 9.7 **Severability:** Any provision of this Agreement that is determined, by a court of competent jurisdiction from which no appeal can or has been made, to be invalid or unenforceable in any jurisdiction shall, as to that jurisdiction, be ineffective to the extent of that invalidity or unenforceability and shall be deemed severed from the remainder of this Agreement, all without affecting the validity or enforceability of the remaining provisions of this Agreement or affecting the validity or enforceability of such provision in any other jurisdiction. If subject to Article 9.4 the Ancillary Service Provider transfers or assigns some of the Contracted Ancillary Service Resources to another person this Agreement will remain in force in respect of the Contracted Ancillary Service Resources remaining in the control of the Ancillary Service Provider.
- 9.8 **Address for Service of Notices:** Any notice, demand, consent, request or other communication required or permitted to be given or made under this Agreement shall:
- (a) be given or made in the manner set forth in section 11.1 of Chapter 1 of the Market Rules;
 - (b) be addressed to the other Party in accordance with the information in Schedule A; and
 - (c) be treated as having been duly given or made in accordance with the provisions of section 11.2 of Chapter 1 of the Market Rules.
- 9.9 **Change of Address for Service of Notices:** Either Party may change its address and representative for notice shown in Schedule A by written notice to the other Party given as aforesaid. Such change will not constitute a modification to this Agreement for the purpose of Article 8.1.
- 9.10 **Governing Law:** This Agreement shall be governed by and construed in accordance with the laws of the Republic of Singapore.

- 9.11 **Counterparts:** This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original and all of which taken together shall be deemed to constitute one and the same instrument. Counterparts may be executed either in original or faxed form and the Parties adopt any signatures received by a receiving facsimile machine as original signatures of the Parties, provided that any Party providing its signature in such manner shall promptly forward to the other Party an original signed copy of this Agreement which was so faxed.

ARTICLE 10

ANCILLARY SERVICES TO BE SUPPLIED

- 10.1 **Ancillary Services to be Supplied:** The Contracted Ancillary Services to be supplied under this Agreement are the services associated with availability and provision of the Contracted Ancillary Service Resources set out in Schedule B2, in accordance with the requirements of Chapter 5 of the Market Rules, including ongoing availability, maintenance, testing and verification of capability, training activities and restoration drills, dispatch and operation of the Contracted Ancillary Service Resources.
- 10.2 **Advance Warning to be Given:** The nature and timing of any advance notice required for the PSO to call upon each Contracted Ancillary Service Resource are those set out in Schedule B2.
- 10.3 **Situations in which PSO may call on Contracted Ancillary Services:** The circumstances when each Ancillary Service may be called upon by the PSO are those set out in Schedule B2 in respect of each Contracted Ancillary Service Resource. Determination of whether or when such circumstances have arisen will be at the sole discretion of the PSO.

ARTICLE 11

SERVICE STANDARDS AND PERFORMANCE LEVELS

- 11.1 **General Service Standards:** The Ancillary Service Provider will:
- (a) comply with all relevant laws in force from time to time in Singapore, and all relevant Codes of Practice, and Electricity Licences, and the Market Rules, in relation to any act, matter or thing to be done pursuant to this Agreement;
 - (b) provide the Contracted Ancillary Services in a manner consistent with all applicable professional and industry standards relevant to the provision of the Contracted Ancillary Services, and, subject to the service and quality standards specified in this Agreement or as may be determined by the PSO with the consent of the Ancillary Service Provider, which consent shall not be unreasonably withheld, in accordance with all guidelines and directions provided by the PSO and/or the EMC to the Ancillary Service Provider from time to time;
 - (c) obtain all statutory and other approvals, licences, permits, consents, assurances, authorisations and similar requirements necessary to perform its obligations under this Agreement and keep them in full force and effect during the Term;
 - (d) comply with all relevant laws and codes of good practice relating to occupational health and safety, and take all reasonable precautions for the safety of the general public and personnel engaged in performing the Contracted Ancillary Services;

- (e) not engage in any activity which would in any way adversely affect or impair the Ancillary Service Provider's ability to provide the Contracted Ancillary Services in an independent and reliable manner;
- (f) immediately act on and bring to the attention of the PSO and the EMC any matter relating to the Contracted Ancillary Services which may threaten the security of the Power System;
- (g) deliver the Contracted Ancillary Services in accordance with the provisions of this Agreement, and promptly attend to and rectify all problems which arise relating to the delivery of the Contracted Ancillary Services;
- (h) comply with all reasonable instructions given by the EMC and/or the PSO in relation to the manner in which the Contracted Ancillary Services are to be performed (in so far as they conform to the service and quality standards specified in this Agreement or as may be determined by the PSO with the consent of the Ancillary Service Provider, which consent shall not be unreasonably withheld), and the level of resources comprising the Contracted Ancillary Service Resources to be devoted to the Contracted Ancillary Services;
- (i) ensure that all personnel involved in providing the Contracted Ancillary Services (including persons designated as Dispatch Coordinators) hold all necessary qualifications and permits and are adequately trained and are competent to carry out their duties in relation to provision of the Contracted Ancillary Services; and
- (j) act promptly to follow all Dispatch instructions for provision of the Contracted Ancillary Services and ensure that each Dispatch Coordinator for a Contracted Ancillary Service Resource shall operate its equipment in a manner consistent with the Dispatch instructions issued to it.

11.2 **Specific Performance Levels:** The Ancillary Service Provider will ensure (where applicable) that:

- (a) each Contracted Ancillary Service Resource providing Reactive Support and Voltage Control Services shall meet the performance standards referred to in section 4.7 of Chapter 5 of the Market Rules and the operational parameters and standard of availability specified in Schedule B1 as well as the standards set out in the System Operation Manual;
- (b) each Contracted Ancillary Service Resource providing Black Start Capability Services shall meet the performance standards referred to in section 4.8 of Chapter 5 of the Market Rules and the operational parameters and standard of availability specified in Schedule B2 as well as the standards set out in the System Operation Manual;
- (c) each Contracted Ancillary Service Resource providing Fast Start Services shall meet the performance standards referred to in section 4.9 of Chapter 5 of the Market Rules and the operational parameters and standard of availability specified in Schedule B3 as well as the standards set out in the System Operation Manual; and

- (d) each Contracted Ancillary Service Resource providing Reliability Must-run Services shall meet the performance standards referred to in section 4.10 of Chapter 5 of the Market Rules and the operational parameters and standard of availability specified in Schedule B4 as well as the standards set out in the System Operation Manual.

ARTICLE 12

RECORD KEEPING REQUIREMENTS

- 12.1 **Records to be kept:** The Ancillary Service Provider will record information and details of the Contracted Ancillary Services provided and will make these available upon request in a form acceptable to the PSO, including:
 - (a) records of maintenance and other processes as may reasonably be expected in accordance with good industry practice to ensure the ongoing suitability and availability of each Contracted Ancillary Service Resource and associated infrastructure; and
 - (b) records of Contracted Ancillary Services actually dispatched and provided, as may be required to reconcile and substantiate claims for payment under this Agreement.

ARTICLE 13

CONFIDENTIALITY

- 13.1 **Confidentiality:** Subject to Article 13.2, the provisions of section 6 of Chapter 3 of the Market Rules apply to this Agreement and are hereby incorporated by reference herein, with all references in such section to a Market Participant being deemed to be a reference to the Ancillary Service Provider for the purposes of this article.
- 13.2 **Publication of Information:** The Ancillary Service Provider acknowledges and agrees to the provisions for publication by the EMC and/or the PSO of certain information regarding Ancillary Service Contracts as provided under of section 8.7 of Chapter 5 of the Market Rules.

ARTICLE 14

PAYMENT FOR ANCILLARY SERVICES AND ANNUAL ADJUSTMENTS

- 14.1 **Payment for Provision of Contracted Ancillary Services:** Payment for provision of Contracted Ancillary Services from each Contracted Ancillary Service Resource will be calculated in accordance with Schedule C.
- 14.2 **Monthly Invoicing:** The Ancillary Service Provider will invoice the EMC for payments due for provision of Contracted Ancillary Services under this Agreement on a monthly basis following the end of each calendar month in respect of the Contracted Ancillary Services provided in that period. The invoice will show details of:
 - (a) inclusive dates for which payment for Ancillary Service provision is claimed;
 - (b) dates, times, and amounts of Contracted Ancillary Services provided by each Contracted Ancillary Service Resource, in accordance with the payment amounts set out in Schedule C, supported by sufficient detail to enable the EMC to validate the invoice with minimal administration.

- 14.3 **Payment Terms:** Subject to invoices being properly rendered, the EMC will pay the Ancillary Service Provider's invoices, inclusive of goods and services tax on the invoiced amounts, 30 days after the invoice has been received less any amounts the EMC is entitled to deduct or withhold under this Agreement.
- 14.4 **Interest on Overdue Payments:** If either Party does not pay within 30 days of a valid invoice being received, and if no dispute exists, the Party liable to make payment will also pay the Party to which payment is due, interest at the Default Interest Rate prevailing on the date 30 days after the date of receipt of the invoice, on any overdue amount not in dispute, for the period commencing 30 days from the date of receipt of the invoice until the payment date.
- 14.5 **Late or Improperly Rendered Invoices:** If the Ancillary Service Provider does not deliver a properly constituted invoice to the EMC within 180 days after the end of the period to which it relates, the Ancillary Service Provider will immediately waive its right to recover payment from the EMC for the period to which it relates.
- 14.6 **Payment of Annual Adjustments:** The annual adjustment L_t relating to the O&M costs of each Contracted Ancillary Services shall be calculated in accordance with Schedule C. Where L_t is positive, the EMC shall notify the Ancillary Service Provider in writing of the amount of L_t and upon receiving such notification, the Ancillary Service Provider shall render an invoice for that amount and the EMC shall pay such invoices within such period of time as to be agreed from time to time between the EMC and the Ancillary Service Provider. Where the amount of L_t is negative, the EMC shall issue a debit note stating the amount of L_t to the Ancillary Service Provider and the Ancillary Service Provider shall refund the amount of L_t within such period of time as to be agreed from time to time between the EMC and the Ancillary Service Provider. Where the Parties fail to agree on an acceptable period in which to make payment of the amount of L_t , then the matter shall be referred to the Authority to determine the timing for payment and such determination shall be binding on both Parties. Any amounts to be refunded by the Ancillary Service Provider, but not paid within the relevant period for refund may be deducted by the EMC from any amounts due to the Ancillary Service Provider under Article 14.3.

ARTICLE 15

FORCE MAJEURE

- 15.1 **Force Majeure Provisions as Prescribed in the Market Rules:** The provisions of section 13.4 of Chapter 1 of the Market Rules apply to this Agreement and are hereby incorporated by reference herein, with all references in such section to a Market Participant being deemed to be a reference to the Ancillary Service Provider for the purposes of this article.

ARTICLE 16

THIRD PARTY RIGHTS

The EMC and the Ancillary Service Provider agree that the provisions of the Contracts (Rights of Third Parties) Act (Cap 53B) shall apply to the Agreement, only insofar as any third party rights are granted to the PSO in this Agreement.

IN WITNESS WHEREOF the Parties have, by their respective duly appointed and authorised representatives, executed this Agreement on the date set forth below.

DATED this _____ day of _____ 2019.

_____ **Ltd.**

Signature: _____

Name:

Title:

In the presence of:

Signature: _____

Name:

Title:

Energy Market Company Pte Ltd.

Signature: _____

Name:

Title:

In the presence of:

Signature: _____

Name:

Title:

Schedule A

A1 Parties' Representatives and Addresses for Service of Notices

Name of EMC's Representative	
Title	
Postal Address	
Email Address	
Telephone Number	
Facsimile Number	

Name of Ancillary Service Provider's Representative	
Title	
Postal Address	
Email Address	
Telephone Number	
Facsimile Number	

A2 Commencement Date and Completion Date

Commencement Date:	01 April 2019
Completion Date:	31 March 2020

Schedule B1

Reactive Support and Voltage Control Services

NOT APPLICABLE

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Schedule B2

Contracted Ancillary Service Resources

The Ancillary Service Provider shall provide the following Contracted Ancillary Services under the circumstances and on the periods of notice set out in this Schedule.

Section 1. Black Start Capability Services

The Ancillary Service Provider shall keep each Contracted Ancillary Service Resource listed in this section available for dispatch or other operation at the direction of the PSO not less than 95% of the time throughout the Term subject to the relevant advance notice period identified below.

In addition, the Ancillary Service Provider shall carry out test to verify its Contracted Ancillary Service Resource ability to provide black start up to synchronisation of any designated Generation Facility stipulated in this Schedule B. This test shall be conducted successfully within the period of 2 months before commencement up to 6 months after commencement of this Ancillary Service Contract with detailed test procedures, comprising Single-Line diagram, isolation, 'black-start' path, list of auxiliary equipment loads, etc, to be submitted to the PSO at least 2 weeks before the test. The Ancillary Service Provider shall on a good faith basis coordinate with the PSO the testing and discuss the details of testing with the PSO before commencing the tests. Test report, in accordance to Annex 1, shall then be submitted to the PSO and EMC within 1 week after completion of test. If the test is conducted successfully, Black Start Generating Unit that has been used for the capability test shall count toward fulfilling the monthly routine test for that month.

In the event where test is unsuccessful, the Ancillary Service Provider shall submit a test report with details on the explanations/corrective actions/reasons of failure to the PSO. A re-test shall be conducted within 1 month from the date of last test.

Separately, the Ancillary Service Provider shall conduct monthly routine test (without power supply from the grid) to demonstrate for each Black Start Generating Unit, listed under Contracted Ancillary Service Resource, the ability to start-up and maintain its rated frequency and voltage while on-load for at least 30 minutes. The Ancillary Service Provider shall notify the PSO no more than 24 hours before the start of the monthly routine test. For cancellation of a monthly routine test, the Ancillary Service Provider shall notify the PSO prior to the start of the test. In the event that the cancellation of the monthly routine test is not received by the PSO prior to the start of the test, the scheduled monthly routine test shall be considered as unsuccessful. Upon completion of test, detailed test report, in accordance to Annex 2, shall be furnished to the PSO and EMC within a week. In the event where the test is unsuccessful, a report with details on the explanations/corrective actions/reasons of failure is to be submitted to the PSO. A re-test shall be conducted within 14 days from the date of last test. For tests that are unsuccessful, the Black Start Generating Unit shall be considered as unavailable from the date of the unsuccessful test until a re-test is conducted successfully.

Where applicable, the Ancillary Service Provider shall also perform regular test on any of its associated facility such as auxiliary boiler forming part of the Black Start Capability Services to demonstrate its functionality and submit test report accordingly to the PSO and EMC.

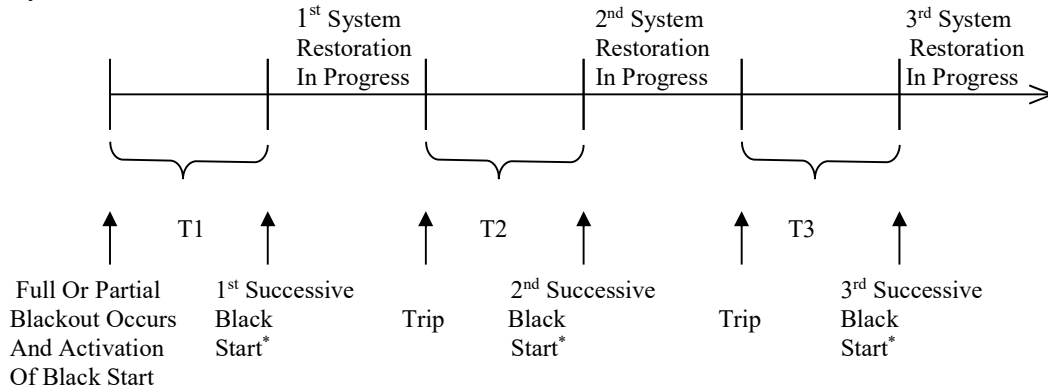
Contracted Ancillary Service Resource	Operational Parameters	Situations in which the Contracted Ancillary Service Resource may be called	Nature and timing of any advance notice required
1. a x b MW Diesel Gensets / Gas Turbines at _____ Power Station	<ul style="list-style-type: none"> • self-start and able to energise station auxiliary board within 30 minutes; • have sufficient capacity to power the auxiliary equipment and remain in stable operation for the entire process of start-up of any of the designated Generation Facility (as listed in Section 2 in this Schedule) in the same generating station and that the designated Generation Facility must be successfully synchronised to the grid; • able to perform 3 successive self-starts within 2 hours. (see Explanatory Note) 	Immediately upon full or partial blackout condition.	None.

Section 2. List of Generation Facilities

The following are the Generation Facilities in _____:

- _____
- _____
- _____
- _____
- _____

Explanatory Notes:



Note :

* Successive Black Start refers to repetitive starting of the Black Start Generating Unit (ie, diesel unit or small GT) without any external sources up to energisation of station auxiliary board.

The above illustrates a scenario of having 3 successive black start and the total duration of T1+T2+T3 should be within 2 hours.

Black Start Capability Test Report Format**Section 1 : Test Scheduling**

Name of Power Station :

Name of Black Start Generating Unit (Under Test) :

Name of designated Generation Facility :
to be synchronised to grid

Test scheduled on : dd/mm/yyyy

Name & Designation :
of Officer-In-Charge**Section 2 : Test Result**

Test conducted on : dd/mm/yyyy @ hh:mm:ss hrs

	Equipment Test Status Success	Record/Remark
Self-start of Black Start Generating Unit without external power from grid	Yes/No	Time of start-up : hh:mm:ss hrs
Ability of Black Start Generating Unit to energise station auxiliary board	Yes/No	Time of energisation of station auxiliary board : hh:mm:ss hrs
Ability of Black Start Generating Unit to maintain stable operation with start-up of auxiliary equipment as per test procedure	Yes/No	To provide list of auxiliary equipment to be started and its estimated power consumption.
Start-up of designated Generation Facility	Yes/No	Time of start-up of designated Generation Facility: hh:mm:ss hrs

Synchronisation of designated Generation Facility to grid	Yes/No	Time designated Generation Facility synchronised to grid : hh:mm:ss hrs
Designated Generation Facility reaches MSL	Yes/No	Time designated Generation Facility reaches MSL : hh:mm:ss hrs
Designated Generation Facility shall continue to operate at MSL for at least 30 minutes.	Yes/No	Time designated Generation Facility completes test : hh:mm:ss hrs

Section 3 : Submission of records/trends/alarm&status listing

The following shall be recorded from start to end of test with proper scaling and labelling :-

Black Start Generating Unit active and reactive output, voltage and frequency

Station and auxiliary board bus voltage

Designated Generation Facility active and reactive output, speed and HV-side bus voltage

Alarm and status listing recorded in DCS (to indicate key activities in alarm list)

Section 4 : Test Procedures

Detailed test procedure including Single-Line diagram, isolation, ‘black-start’ path, etc

Section 5 : In the event where test is unsuccessful, to provide detailed on the explanations/corrective actions/reasons of failure. A re-test shall be conducted within 1 month from the date of last test.

Test Report submitted to the PSO on

Date :

Name & Designation of Officer-In-Charge :

Black Start Routine Test – Test Report Format

Section 1 : Test Scheduling

Name of Power Station :
 Name of Black Start Generating Unit (Under Test) :
 Test scheduled on : dd/mm/yyyy
 Name & Designation of Officer-In-Charge :

Section 2 : Test Result

Test conducted on : dd/mm/yyyy @ hh:mm:ss hrs

	Equipment Test Status Success	Record/Remark
Self-start of Black Start Generating Unit without external power from grid	Yes/No	Time of Start-up : hh:mm:ss hrs
Ability of Black Start Generating Unit to maintain stable operation according to test loading profile	Yes/No	Time Black Start Generating Unit reaches rated speed and on-load : hh:mm:ss hrs Time of test completion : hh:mm:ss hrs

Section 3 : Submission of records/trends

The following shall be recorded from start to end of test with proper scaling and labelling :-

- Black Start Generating Unit active and reactive output, voltage and frequency
- Alarm and status listing recorded in DCS

Section 4 : Test Procedures

To incorporate test procedure including loading profile for Black Start Generating Unit etc.

Section 5 : In the event where test is unsuccessful, to provide detailed on the explanations/corrective actions/reasons of failure. A re-test shall be conducted within 14 days from the date of last test.

Test Report submitted to the PSO on

Date :

Name & Designation
of Officer-In-Charge :

Schedule B3

Fast Start Services

NOT APPLICABLE

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Schedule B4

Reliability Must-run Services

NOT APPLICABLE

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Schedule C

Payments for Contracted Ancillary Services

Black Start Capability Services

Contracted Ancillary Service Resource	Availability payment (payable whether or not the Ancillary Service Resource is specifically activated)	Activation Payment
a X b MW Dieset Gensets / Gas Turbines at _____ Station	\$ _____ per settlement period	Nil

Pricing formula for Calculating payment for Ancillary Service

Black Start Capability Payment

1. Black start capability payment is intended to recompense the ancillary service provider for the provision and maintenance of assets which are required to provide the black start capability necessary for system security and the cost of which is not recovered through other means which in practical terms is the aggregate of the budget for capital expenditure on assets required to provide for black start capability necessary for system security and O&M costs actually incurred in any year plus a margin of 10% on O&M costs.
2. The black start capability payment, $PBSC_{m,t}$, shall be made monthly and based on the total available settlement periods declared by the Ancillary Service Provider. At the end of relevant year t, the Ancillary Service Provider shall receive or pay the difference payment L_t , for the difference between the audited actual O&M costs (including a margin of 10%) and budgeted O&M costs (including a margin of 10%).
3. For the avoidance of doubt, the per annum wash-off in respect of L_t will be applied on O&M costs only. Any expenditure of a capital nature shall be built within the budget for the relevant year.

$PBSC_{m,t}$ shall be calculated in accordance with the following formulae:

A) Monthly Payment, $PBSC_{m,t}$

$$PBSC_{m,t} = BSC_t \times HRS_m$$

where:

PBSC_{m,t} means the payment for black start capability service due to the Ancillary Service Provider in month m in relevant year t;

BSC_t means the rate of black start capability payment (\$ per settlement period) which is based on the annual capital charges, O&M costs, plus 10% of O&M costs and availability factor (AF) calculated in accordance with the following formula:

$$BSC_t = \frac{(1.10 * B_t) + ACC_{BSP}}{\text{Total settlement periods in relevant year } t * AF}$$

where:

AF means such availability factor as set out in Schedule B of the Agreement;

B_t means the budgeted annual O&M costs incurred in operating the black start plant in relevant year t;

ACC_{BSP} means the sum of annual capital charges on the capital cost of the black start plant and the land lease, calculated based on the expected life span of the plant and term of the lease respectively, and an interest rate of 10% per annum;

HRS_m means the total settlement periods in month m that the Contracted Ancillary Service Resources designated for providing Black Start Capability Services is declared available.

(B) Annual Adjustment, L_t

After the end of the relevant year t, the per annum wash-off payment between the budgeted annual O&M costs and the audited O&M costs actually incurred under or over recovered of the relevant year t, L_t, shall be computed by the EMC.

If L_t is positive, the Ancillary Service Provider shall be paid the amount L_t; if L_t is negative, the Ancillary Service Provider shall pay the amount L_t.

L_t, shall be calculated in accordance with the following formula:

$$L_t = 1.10 * (AA_t - A_t)$$

where:

L_t is the wash-off payment between budgeted O&M costs in relevant year t and audited O&M costs actually incurred in relevant year t, plus a margin of 10%;

A_t is the budgeted O&M costs in operating the Contracted Ancillary Service Resources designated for providing Black Start Capability Services in relevant year t ;

AA_t is the audited O&M costs actually incurred in operating the Contracted Ancillary Service Resources designated for providing Black Start Capability Services in relevant year t ;

Note: “audited O&M costs” refers to any and all items with respect to O&M costs in the audited annual accounts of the Contracted Ancillary Services Provider.

4. For the purposes of calculating the black start capability payment:

“*Annual Adjustment L_t* ” means the per annum wash-off payment after the end of the tax year of the Ancillary Service Provider of the relevant year t , which is further, ascribed Paragraph (B) above;

“*O&M costs*” means the operation and maintenance costs incurred by the ancillary service provider in operating the Contracted Ancillary Service Resources designated for providing Black Start Capability Services and shall include the cost of testing such Contracted Ancillary Service Resources and exclude depreciation and interest expense on the fixed assets;

“*relevant year*” means a calendar year;

“*relevant year t* ” means that relevant year for the purposes of which any calculation falls to be made;

“*settlement period*” means a thirty-minute time interval beginning on the hour or the half-hour.