



# **Electricity Generation Licence**

HWF 2 Pty Ltd ABN 40 605 944 394

Issued by the Essential Services Commission of South Australia on 13 February 2017

# Variation history

Amendment number	Variation date	Reason

## 1 Definitions and interpretation

- 1.1 Words appearing in bold like **this** are defined in Part 1 of the Schedule.
- 1.2 This licence must be interpreted in accordance with the rules set out in Part 2 of the Schedule.

#### 2 Grant of licence

- 2.1 The **licensee** is licensed under Part 3 of the **Act**, and subject to the conditions set out in this licence, to generate electricity:
  - a) using the electricity generating plant as specified in Part A of the Annexure; and
  - b) at the location described in Part B of the Annexure.

#### 3 Term

- 3.1 This licence commences on the date it is issued and continues until it is:
  - a) surrendered by the licensee under section 29 of the Act; or
  - b) suspended or cancelled by the Commission under section 37 of the Act.

#### 4 Fees

4.1 The **licensee** must pay the applicable licence fees in accordance with section 20 of the **Act**.

#### 5 Access

- 5.1 The **licensee** must:
  - a) in accordance with, and to the extent required by, the Electricity Transmission Code, grant to a network service provider, rights to use, or have access to, those parts of the licensee's electricity generating plant that are interconnected or interface with the network service provider's assets for the purpose of ensuring the proper integrated operation of the South Australian power system and the proper conduct of the operations authorised by the network service provider's transmission licence or distribution licence; and
  - b) in the absence of agreement as to the terms on which such rights are to be granted, comply with a determination of the **Commission** as to those terms.

## 6 Dispute resolution

- A dispute relating to the granting of rights to use or have access to the interconnecting assets of the licensee's electricity generating plant referred to in clause 5 shall be resolved in accordance with any applicable industry code developed by the Commission for the resolution of disputes.
- 6.2 Clause 6.1 does not apply to the extent the dispute is subject to resolution in accordance with or under the **National Electricity Rules**.

#### 7 Compliance with Codes

#### 7.1 The **licensee** must:

- a) comply with all applicable provisions of the Electricity Transmission Code, the Electricity Distribution Code and the Electricity Metering Code;
- b) comply with all applicable provisions of any other **industry code** or **rule** made by the **Commission** from time to time; and
- c) notify the Commission if it commits a material breach of the Electricity Transmission Code, the Electricity Distribution Code or the Electricity Metering Code within 3 days after becoming aware of that breach.

# 8 Safety, reliability, maintenance and technical management plan

#### 8.1 The **licensee** must:

- a) within 12 months of the commencement of this licence, or within 3 months of the date (as advised by the licensee) of final commissioning and plant acceptance, whichever is the later, prepare a safety, reliability, maintenance and technical management plan dealing with matters prescribed by regulation and submit the plan to the Commission for approval;
- b) annually review, and if necessary update, the plan to ensure its efficient operation, and submit the updated plan to the **Commission** for approval;
- c) comply with the plan prepared in accordance with clause 8.1(a) and as updated from time to time in accordance with clause 8.1(b);
- d) not amend the plan without the approval of the Commission; and
- e) undertake annual audits of its compliance with its obligations under the plan and report the results to the **Technical Regulator**, in a manner approved by the **Technical Regulator**.

## 9 National electricity market

- 9.1 Subject to clause 9.2, **licensee** must hold and comply with the conditions of any registration required under the **National Electricity Rules** granted by **AEMO** (or the person responsible for the granting of such registrations under the **National Electricity Law** or the **National Electricity Rules**) at all times that such registration is required for the operations authorised by this licence.
- 9.2 In respect of the **electricity generating plant** which the **licensee** is authorised to operate under this licence, the **licensee**:
  - a) must obtain registration as a market generator under the **National Electricity Rules**; and
  - b) must not apply for any **generating unit** within that **electricity generating plant** to be classified as a non-scheduled **generating unit** under the **National Electricity Rules**.

## 10 Provision of Frequency Control Ancillary Services

- In respect of the electricity **generating plant** which the **licensee** is authorised to operate under this licence, the **licensee** must, following a request from the **Commission** in writing:
  - a) register as an ancillary service **generating unit** in accordance with clause 2.2.6 of the **National Electricity Rules**, for the provision of **frequency control ancillary services**; and
  - b) comply with dispatch instructions issued via the **Automatic Generator Control System** in accordance with clause 3.8.21 of the **National Electricity Rules**; and
  - c) comply with the terms of a **frequency control ancillary services** program trial, as prescribed by the **Commission**.

## 11 Response to frequency disturbances

- 11.1 Each **generating unit** which the **licensee** is authorised to operate under this licence must comply with:
  - a) the **automatic access standard** for generating system capability for continuous uninterrupted operation for frequencies specified in clause S5.2.5.3 of the **National Electricity Rules**; and
  - b) the minimum access standard for generating system capability for continuous uninterrupted operation for frequencies specified in clause S5.2.5.3(a) of the National Electricity Rules.

## 12 Fault ride through capability

- 12.1 Each **generating unit** which the **licensee** is authorised to operate under this licence must comply with:
  - a) the automatic access standard for generating system response to disturbances following contingency events specified in clause S5.2.5.5(b)(1) of the National Electricity Rules; and
  - b) subject to clause 12.2, the **automatic access standard** for generating system response to disturbances following contingency events specified in clause S5.2.5.5(b)(2) of the **National Electricity Rules**; and
  - subject to clause 12.3, the automatic access standard for generating system response to voltage disturbances specified in clauses S5.2.5.4 of the National Electricity Rules.
- The **licensee** is not required to comply with clause 12.1(b) in respect of a **generating unit** which the **licensee** is authorised to operate under this licence where:
  - a) the minimum access standard requirements specified in clause S5.2.5.5(c)(2) of the National Electricity Rules in relation to generating system response to disturbances following contingency events; and
  - b) the requirements of clauses S5.2.5.5(d), (e) and (f) of the **National Electricity Rules**, are satisfied in respect of that **generating unit**.

- The **licensee** is not required to comply with clause 12.1(c) in respect of a **generating unit** which the **licensee** is authorised to operate under this licence where:
  - a) AEMO and the relevant network service provider have agreed, pursuant to clause S5.2.5.4(c)(3) of the National Electricity Rules, that there would be no material adverse impact on the quality of supply to other network users or power system security as a result of that non-compliance; and
  - b) the requirements of clauses S5.2.5.4(c), (d), (e) and (f) of the **National Electricity Rules** are otherwise satisfied in respect of that **generating unit**.

## 13 Reactive power capability

- The **electricity generating plant** operated by the **licensee** must at all times be capable of continuous operation at a power factor of between 0.93 leading and 0.93 lagging at real power outputs exceeding 5MW at the connection point.
- The **electricity generating plant** operated by the **licensee** must at all times be capable of providing:
  - a) subject to clause 13.4(b), at least 50 percent of the reactive power required to meet the power factor referred to in clause 13.1 on a dynamically variable basis; and
  - b) the balance of the reactive power required to meet the power factor referred to in clause 13.1 on a non-dynamic basis.
- At generation levels below full rated output the **electricity generating plant** operated by the **licensee** must be capable of:
  - a) absorbing reactive power at a level at least pro-rata to that of full output; and
  - b) delivering reactive power at a level at least pro-rata to that of full output.
- 13.4 For the purposes of clause 13.2(a):
  - a) dynamically variable means continuous modulation of the reactive power output over its range, with an initial response time or dead time of less than 200 milliseconds and a rise time (as defined in clause S5.2.5.13 of the National Electricity Rules) of less than 1 second following a voltage disturbance on the network; and
  - b) for a period of not more than 2 seconds on any single occasion, a short-term overload capability may be used to meet the 50 percent requirement, provided that use of that short-term overload capability does not cause a breach of any other licence condition.
- The reactive power capability of the **electricity generation plant** operated by the **licensee** must be capable of control by a fast-acting, continuously variable, voltage control system which is able to receive a local and remote voltage set point.
- The **electricity generating plant** operated by the **licensee** must be able to operate at either a set reactive power, or a set power factor, which is able to be set locally or remotely at any time.
- 13.7 The power factor or reactive power control mode of the **electricity generating plant** operated by the **licensee** must be capable of:

- a) being overridden by voltage support mode during power system voltage disturbances; and
- b) automatically reverting to power factor or reactive power mode when the disturbance has ceased.

#### 14 Wind forecasting

- 14.1 In the event that any **generating unit** which the **licensee** is authorised to operate under this licence is classified under the **National Electricity Rules** other than as a semi-scheduled **generating unit**, the **Licensee** must, on request, provide to **AEMO** or the **Commission**, accurate and verifiable wind energy forecasting data and temperature data, appropriately constructed wind energy conversion models, documents and other information concerning the operation of that **generating unit**.
- 14.2 Any data, models, documents and information requested under this clause must be provided in the manner and form and within the time frame specified by **AEMO** or the **Commission**.

#### 15 Information to AEMO

- 15.1 The **licensee** must, following a request from **AEMO**, provide to **AEMO** such documents and information as **AEMO** may reasonably require for the performance of its functions under the **Act**.
- The generating plant operated by the licensee must be:
  - a) able to meet the requirements specified by AEMO from time to time for the real time supply of data on active and reactive power for at least 3 hours following total loss of supply at the connection point; and
  - b) capable of remote control by AEMO.
- In the event that any **generating unit** which the **licensee** is authorised to operate under this licence is classified under the **National Electricity Rules** other than as a semi-scheduled **generating unit**, the **licensee** must provide **AEMO** with forecasts of expected generation output for the purposes of incorporation into pre-dispatch, medium term and long term Projected Assessment of System Adequacy data.

## 16 System controller

The licensee must comply with any directions given to it by the System Controller.

## 17 Information to the Commission

- 17.1 The **licensee** must, from time to time, provide to the **Commission**, in a manner and form determined by the **Commission**:
  - a) details of the **licensee's** financial, technical and other capacity to continue the operations authorised by this licence; and
  - b) such other information as the Commission may require from time to time.
- 17.2 The **licensee** must notify the **Commission** of any changes to its **officers**, and (if applicable) major shareholders, within 30 days of that change.

## 18 Operational and compliance audits

- The **licensee** must undertake periodic audits of the operations authorised by this licence and of its compliance with its obligations under this licence and any applicable **industry codes** in accordance with the requirements of any applicable guideline issued by the **Commission** for this purpose.
- The **licensee** must also conduct any further audits at a frequency and in manner approved by the **Commission**.
- 18.3 The results of audits conducted under this clause must be reported to the **Commission** in a manner approved by the **Commission**.
- The **Commission** may require the licensee to use an independent expert approved by the **Commission** to conduct audits under this clause.
- The **Commission** may require the costs of using an independent expert approved by the **Commission** to conduct audits under this clause to be met by the **licensee**.

#### 19 Confidentiality

The **licensee** must, unless otherwise required by law, this licence, an **industry code**, or the **National Electricity Rules**, comply with any **rules** made by the **Commission** from time to time relating to the use of information acquired by the **licensee** in the course of operating the business authorised by this licence.

#### 20 Community service

20.1 The **licensee** must comply with the requirements of any scheme approved and funded by the Minister for the provision by the State of customer concessions or the performance of community service obligations by the **electricity entities**.

#### 21 Compatibility

21.1 The **licensee** must not do anything to its **electricity generating plant** affecting the compatibility of its **electricity generating plant** with any **distribution network** or **transmission network** so as to prejudice public safety or the security of the power system of which the **electricity generating plant** forms a part.

#### 22 Insurance

- The **licensee** must undertake and maintain during the term of this licence insurance against liability for causing bush fires.
- The **licensee** must provide to the **Commission** a certificate of the insurer or the insurance broker by whom the insurance was arranged (in a form acceptable to the **Commission**) to the effect that such insurance is adequate and appropriate, given the nature of the **licensee's** activities conducted under this licence and the risks associated with those activities.

#### 23 Compliance with laws

23.1 The **licensee** must comply with all applicable laws including, but not limited to, any technical or safety requirements or standards contained in regulations made under the **Act**.

## 24 Variation

24.1 This licence may only be varied in accordance with section 27 of the Act.

#### 25 Transfer

25.1 This licence may only be transferred in accordance with section 28 of the Act.

This licence was issued by the **Commission** on 13 February 2017.

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## Schedule: Definitions and Interpretation

#### Part 1 - Definitions

In this licence:

Act means the Electricity Act 1995 (SA).

AEMO means the Australian Energy Market Operator Ltd (ACN 072 010 327).

**automatic access standard** has the same meaning given to that term under the **National Electricity Rules**.

**Automatic Generator Control System** has the same meaning given to that term under the **National** Electricity Rules.

business day means a day on which banks are open for general banking business in Adelaide, excluding a Saturday or Sunday.

Commission means the Essential Services Commission established under the ESC Act.

distribution licence means a licence to operate a distribution network granted under Part 3 of the Act.

distribution network has the meaning given to that term under the Act.

Electricity Distribution Code means the code of that name made by the Commission under section 28 of the ESC Act which regulates connections to a distribution network and the supply of electricity by distributors.

**electricity entity** means a person who has been granted a licence under Part 3 of the **Act** to carry on operations in the electricity supply industry.

**electricity generating plant** includes all **generating units** and all other equipment involved in generating electrical energy authorised to be operated by the **licensee** under this licence.

Electricity Metering Code means the code of that name made by the Commission under section 28 of the ESC Act which regulates the installation, maintenance and testing of meters.

Electricity Transmission Code means the code of that name made by the Commission under section 28 of the ESC Act.

ESC Act means the Essential Services Commission Act 2002 (SA).

**frequency control ancillary services** has the same meaning given to that term under the **National Electricity Rules**.

generator means a holder of a licence to generate electricity granted under Part 3 of the Act.

generating unit means each individual unit producing electrical energy

industry code means any code made by the Commission under section 28 of the ESC Act from time to time.

licensee means HWF 2 Pty Ltd (ABN 40 605 944 394).

minimum access standard has the same meaning given to that term under the National Electricity Rules.

National Electricity Rules has the meaning given to that term in the National Electricity Law.

National Electricity Law means the National Electricity Law referred to in the National Electricity (South Australia) Act 1996 (SA).

**network service provider** means the holder of a **distribution licence** or a **transmission licence** (as the case may be) issued by the **Commission** under Part 3 of the **Act**. **rule** means any rule issued by the **Commission** under section 28 of the **ESC Act**.

**System Controller** means the person licensed under Part 3 of the **Act** to exercise system control over a power system.

Technical Regulator means the person holding the office of Technical Regulator under Part 2 of the Act.

**transmission licence** means a licence to operate a **transmission network** granted under Part 3 of the **Act**.

transmission network has the meaning given to that term under the Act.

#### Part 2 - Interpretation

In this licence, unless the context otherwise requires:

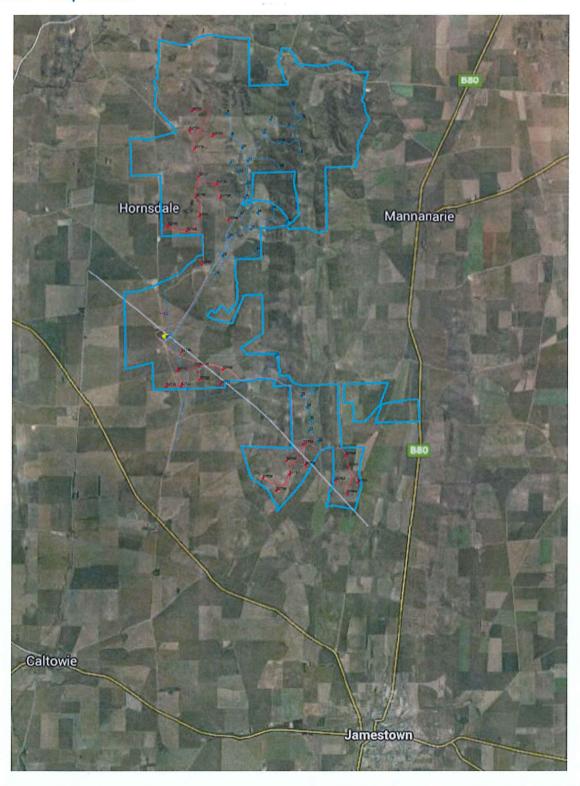
- (a) headings are for convenience only and do not affect the interpretation of this licence;
- (b) words importing the singular include the plural and vice versa;
- (c) words importing a gender include any gender;
- (d) an expression importing a natural person includes any company, partnership, trust, joint venture, association, corporation or other body corporate and any governmental agency;
- (e) a reference to any statute, regulation, proclamation, order in council, ordinance or bylaw includes all statutes, regulations, proclamations, orders in council, ordinances or by-laws varying, consolidating, re-enacting, extending or replacing them and a reference to a statute includes all regulations, proclamations, orders in council, ordinances, by-laws and determinations issued under that statute;
- (f) a reference to a person includes that person's executors, administrators, successors, substitutes (including, without limitation, persons taking by novation) and permitted assigns;
- (g) a reference to a document or a provision of a document includes an amendment or supplement to, or replacement or novation of, that document or that provision of that document;
- (h) an event which is required under this licence to occur on or by a stipulated day which is not a **business day** may occur on or by the next **business day**.

#### **ANNEXURE**

#### Part A -Services

Provision of the operation of 32 Siemens 3.2 MW (SWT-3.2-113) wind turbine electricity generators with a total combined maximum output capacity capped at 100 MW.

## Part B -Map of area





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