



# **Electricity Generation Licence**

SA Power Networks (ACN 332 330 749)

## A partnership of:

Spark Infrastructure (No. 1) Pty Ltd (ABN 54 091 142 380),

Spark Infrastructure (No. 2) Pty Ltd (ABN 19 091 143 038),

Spark Infrastructure (No. 3) Pty Ltd (ABN 50 091 142 362),

CKI Utilities Development Ltd (ABN 65 090 718 880), and

PAI Utilities Development Ltd (ABN 82 090 718 951)

Issued by the South Australian Independent Industry Regulator on 21 January 2000. Last varied by the Essential Services Commission on 15 May 2019.

## Variation history

Amendment number	Variation date	Reason
1 (ESCOSA)	7/11/2008	
2 (ESCOSA)	3/4/2012	
3 (ESCOSA)	15/01/2013	
4 (ESCOSA)	27/09/2017	Authorisation of the following generation plant, for the period 27 September 2017 to 1 June 2020 (inclusive):  ▶ five GE TM2500 aero derivative turbines (each 30.7MW) with a maximum output of 153.5MW at Edinburgh, and  ▶ four GE TM2500 aero derivative turbines (each 30.7MW) with a maximum output of 122.8MW at Lonsdale.
ESCOSA05	15/05/2019	Licence varied to include the operation of generating plant located at Angle Park and Marleston, to reflect amendments made to the Act and update outdated references.

## 1 Definitions and interpretation

- 1.1 Words appearing in bold like **this** are defined in part 1 of Schedule 1.
- 1.2 Clauses 1 to 17 (inclusive) of this licence:
  - (a) must be interpreted in accordance with the rules set out in part 2 of Schedule 1; and
  - (b) apply to the electricity generating plant.
- 1.3 The conditions set out in Schedule 2 of this licence:
  - (a) must be interpreted in accordance with the rules set out in part 2 of Schedule 1 and clause 1 of Schedule 2; and
  - (b) apply to Plant B only.

## 2 Grant of licence

2.1 The Commission licences the licensee under Part 3 of the Act to generate electricity at the electricity generating plant listed in the Annexure, subject to the conditions set out in this licence.

## 3 Term

- 3.1 This licence commences on the date it is issued and continues until:
  - (a) it is surrendered by the licensee under section 29 of the Act; or
  - (b) it is cancelled by the Commission under section 37 of the Act.
- 3.2 Notwithstanding clause 3.1, this licence only authorises the generation of electricity at Plant B for the period 27 September 2017 to 1 June 2020 (inclusive).

### 4 Access

- 4.1 The licensee must:
  - (a) in accordance with, and to the extent required by, the Electricity Transmission Code, grant to an electricity entity holding a transmission licence or a distribution licence, rights to use, or have access to, those parts of the licensee's electricity generating plant that are interconnected or interface with the electricity entity'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 that electricity entity'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.

## 5 Dispute resolution

- A dispute relating to the granting of rights to use, or have access to, any of the parts of the licensee's electricity generating plant referred to in clause Error! Reference source not found. shall be resolved in accordance with such Code (if any) as is made by the Commission which establishes a scheme for the resolution of disputes in relation to such rights.
- 5.2 Clause 5 does not apply to the extent the dispute is subject to resolution in accordance with or under the **National Electricity Rules**.

## 6 Compliance with Codes

- 6.1 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 **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.

# 7 Safety, reliability, maintenance and technical management plan

- 7.1 The licensee must:
  - (a) prepare, maintain and periodically revise a safety, reliability, maintenance and technical management plan dealing with matters prescribed by **regulation**;
  - (b) obtain the approval of the Technical Regulator:
    - (i) to the plan (prior to commencement of the operation of the **electricity generating plant** to which the plan relates); and
    - (ii) to any revision of the plan;
  - (c) comply with the plan as approved from time to time in accordance with clause 7.1(b);
  - (d) undertake audits of its compliance with the plan from time to time and report the results of those audits to the Technical Regulator, in the form required by the Technical Regulator.

## 8 System Controller and AEMO

- 8.1 The licensee must, following a request from the AEMO, provide to the AEMO such documents and information as the AEMO may reasonably require for the performance of its functions under the Act.
- 8.2 The licensee must comply with any directions given to it by the System Controller.

## 9 National Electricity Market

9.1 At all times during the term of this licence, the 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).

## 10 Information to the Commission

- 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.
- The **licensee** must notify the **Commission** of any changes to its **officers**, and (if applicable) major shareholders, within 30 days of that change.

## 11 Operational and compliance audits

- 11.1 The licensee must undertake annual audits of the operations authorised by this licence and of its compliance with its obligations under this licence and any applicable **Codes**.
- 11.2 The results of each such audit must be reported to the **Commission** in a manner approved by the **Commission**.

## 12 Community service

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.

## 13 Compatibility

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.

## 14 Insurance

The licensee must 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 operations conducted under this licence and the risks associated with those operations.

## 15 Compliance with laws

15.1 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**.

## 16 Switching manual

- 16.1 The licensee must:
  - (a) prepare and maintain an internal switching manual in accordance with the **regulations**; and
  - (b) comply with any other requirements relating to switching prescribed in the regulations

#### 17 Variation

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

## 18 Transfer

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

This licence was issued by the South Australian Independent Industry Regulator on 21 January 2000 and last varied by the **Commission** on 15 May 2019.

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## Schedule 1: Definitions and Interpretation

#### Part 1 - Definitions

In clauses 1 to 18 (inclusive) of this licence:

Act means the Electricity Act 1996 (SA);

AEMO means the Australian Energy Market Operator Limited (ABN 94 072 010 327);

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

Code means any code, made by the Commission under section 28 of the ESC Act, as in force from time to time;

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 means Plant A, Plant B, Plant C and Plant D and 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);

generating unit means each individual unit producing electrical energy and all the related equipment essential to that unit's functioning as a single entity.

licensee means SA Power Networks (ACN 332 330 749) a partnership of: Spark Infrastructure (No. 1) Pty Ltd (ABN 54 091 142 380), Spark Infrastructure (No. 2) Pty Ltd (ABN 19 091 143 038), Spark Infrastructure (No. 3) Pty Ltd (ABN 50 091 142 362), CKI Utilities Development Ltd (ABN 85 090 718 880) and PAI Utilities Development Ltd (ABN 82 090 718 951);

Minister means the person who is responsible for the administration of the Act;

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);

Plant A has the meaning given to that term in the Annexure;

Plant B has the meaning given to that term in the Annexure;

Plant C has the meaning given to that term in the Annexure;

Plant D has the meaning given to that term in the Annexure;

**Regulation** means the Electricity (General) Regulations 2012, or regulations that supersede these regulations

rule means any rule, made by the Commission under section 28 of the ESC Act, as in force from time to time;

System Controller means the person (if any) licensed under Part 3 of the Act to exercise system control over the power system of which the licensee's electricity generating plant forms a part;

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; and

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 by-law 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 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;
- (g) 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;
- (h) a reference in this licence to the **electricity generating plant** of a person includes a reference to **electricity generating plant** which is not owned by the person but is operated by the person.

### SCHEDULE 2

#### Interpretation of this schedule

- 1. Interpretation
- 1.2 Terms used in this schedule 2 and also in the National Electricity Rules (NER) have the same meaning in this schedule as they have in those rules (unless otherwise specified).

#### Voltage control capability

- 2. Voltage control capabilityThe generating system must be capable of being controlled by a fastacting, continuously variable, voltage control system which must be able to receive a local voltage set point.
- 2.2 The generating system must be capable of operating at either a set reactive power level or a set power factor, which must be able to be set locally at any time.

#### Active power control capability

- 3. Active power control capabilityThe generating system must be capable of automatically providing a proportional increase or decrease in active power output, in response to falling and rising power system frequency respectively.
- 3.2 To comply with clause 3.1:
  - (a) An active power response to changing power system frequency must be provided with no delay, beyond that required for stable operation, or inherent in the plant controls, once frequency leaves the deadband.
  - (b) The steady state droop setting of the active power response must be adjustable in the range 2 percent to 10 percent.
  - (c) The frequency dead-band for the active power response must be adjustable in the range from 0 to +/- 0.5 Hz.
- 3.3 The generating system must be capable of sustaining a response to abnormal frequency conditions for at least 10 minutes, subject only to energy resource availability for intermittent generating systems.
- 4. Active power control capability (rate of change of active power) The generating system must be capable of limiting the rate of change of active power, both upwards and downwards. A generating system is not required to comply with a limit on the rate of reduction of active power where the reduction in active power is caused by energy resource availability for intermittent generating systems.
- 4.2 The generating system must be capable of implementing different active power rate limits for operation in the normal operating frequency band and for contingency events.
- The generating system must be capable of setting a ramp rate limit with accuracy of within 10 percent.

## **System restoration**

- 5. System restorationThe generating system must have the following capability in the event of a black system:
  - (a) Where sufficient minimum fault level is available from online synchronous machines, the generating system must be capable of operation with auxiliary loads only for 180 minutes while system load is being restored.
  - (b) The generating system, including, but not limited to, each of its generating units and dynamic reactive power plant (as applicable) must have the capability to provide steady-state and dynamic reactive power when operating with auxiliary loads only for 180 minutes while system load is being restored.

## **ANNEXURE**

The Commission licences the licensee under Part 3 of the Act to generate electricity at the electricity generating plant listed below, subject to the applicable conditions as set out in this licence.

#### Plant A

Kingscote Power Station, Kangaroo Island.

#### Plant B

Five GE TM2500 aero derivative turbines (each 30.7MW) with a maximum output of 153.5MW at Edinburgh, and four GE TM2500 aero derivative turbines (each 30.7MW) with a maximum output of 122.8MW at Lonsdale.

#### Plant C

To operate a solar generating plant consisting of 926 x 270 Watt Jinko JKM solar panels with an export capacity of 251 kilowatts, located at Wingfield (Angle Park).

#### Plant D

To operate a solar generating plant consisting of 781 x 270 Watt Jinko JKM solar panels with an export capacity of 211 kilowatts, located at Marleston.



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