



Application form for the issue of an Electricity Generation Licence

by the Essential Services Commission of SA under the
Electricity Act 1996

August 2017

Enquiries concerning this application form should be addressed to:

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Adelaide SA 5001

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Licence requirements and conditions

It is essential that licence applicants read the Essential Services Commission's (**Commission**) Advisory Bulletin No 4 – "Licensing Arrangements for the Electricity and Gas Supply Industries" before they fill out this form. This Bulletin is available on the Commission website www.escosa.sa.gov.au under electricity/licensing.

Generation operations which require a licence

Section 15(2)(a) of the *Electricity Act 1996 (Act)*¹ is explicit in that it requires a person that carries on the operation of the generation of electricity to hold a licence. This requirement applies to all generators with the exception of a generator that can rely on:

- (1) one of the statutory exemptions specified in the Electricity (General) Regulations 1997 (**Regulations**) outlined below;
- (2) an individual exemption issued by the Commission (with the approval of the Minister) pursuant to section 80(1) of the Act; or
- (3) an exemption made by Governor under a regulation pursuant to section 98(2)(e) of the Act.

Pursuant to Regulations 6(1) and (2), the following generators are exempt from the requirement to hold a generation licence:

- ▶ a generator whose generating plant has a rated nameplate output of 100kVA or less;
- ▶ a generator that does not supply electricity for reward to or by means of a transmission or distribution network;
- ▶ a generator that generates electricity for the sole consumption of that generator or a designated body (such bodies must be designated by the Minister²); or
- ▶ a generator that generates electricity for a person at a premises occupied or used by the person as a tenant or licensee (whether directly or indirectly) of the generator (or a designated body) where that person is not charged for the supply of electricity except by a licensed retailer/generator or as an unspecified part of rent or charges for the occupation or use of the premises.

It is important for generators (or proposed generators) to carefully consider whether they can rely on a statutory exemption from the requirement to be licensed. If the reliance on a statutory exemption is queried by the Commission, the onus to provide evidence that a particular exemption can be relied upon is on the relevant generator.

In addition, in the event that the operations of a generator change so that it can no longer rely on one of the three exemptions specified above, it will need to apply to the Commission for a generation licence immediately in order to continue those operations.

Mandatory licence conditions

Sections 21(1) and 22 of the Act requires the Commission to place certain mandatory conditions in generation licences. The Commission strongly recommends that applicants review these mandatory conditions. Applicants must be familiar with the relevant conditions and confident that they can comply with the conditions.

Additional technical licence conditions

Additional technical licence conditions apply to apply to all new electricity generators seeking to connect to the South Australian power system. Applicants for a generation licence should familiarise themselves

¹ Available at <https://www.legislation.sa.gov.au/LZ/C/A/ELECTRICITY%20ACT%201996.aspx>

² To date, the Minister for Energy and Resources has not designated any bodies for the purposes of Regulations 6(1).

with the Commission's Inquiry into the licensing arrangements for generators in South Australia final report, available on the Commissions website.³

Model licence conditions reflecting the Inquiry findings and conclusions have been developed and are available in Appendix 1. The model conditions will be applicable to all new applications, having regard to advice from the Australian Energy Market Operator (**AEMO**) on the specific circumstances of individual applications received.

Depending on the specific characteristics of a given generation project, the model conditions may be varied to the degree necessary to ensure that South Australian consumers' long-term interests with respect to the price, quality and reliability of electricity services are protected.

Annual licence fees

Holding a licence incurs annual licence fees. The licence fees determined by the Minister for Resources and Energy are administered by the Commission. At annual intervals, the Commission, on behalf of the Minister, will send to each licensee, depending on the category within the sector, an invoice for the licence fee. Licence fees are to be paid on receipt of an invoice via one of the payment options set out in the invoice.

The initial licence will not be issued until the first annual licence fee (or approved licence fee instalment) has been paid.

³ Refer: <http://www.escosa.sa.gov.au/projects-and-publications/projects/inquiries/inquiry-into-licensing-arrangements-under-the-electricity-act-1996-for-inverter-connected-generators/inquiry-into-licensing-arrangements-under-the-electricity-act-1996-for-inverter-connected-generators>

How to apply for a generation licence

This form is to be completed by persons making application to the Commission for the issue of a licence to authorise electricity generation operations in the electricity supply industry in South Australia.

The Commission can also consider joint applications from two or more persons who wish to hold a licence jointly. Persons making joint applications must ensure that each of the applicants completes a separate application form, together with a covering letter explaining that the application is for a licence to be jointly held.

Section 16(1)(a) of the Act provides that an application for the issue of a licence must be made to the Commission in a form approved by the Commission. This is the form approved by the Commission.

Use of this form and applicant's responsibilities

An application for a licence may be made by any legal person including, without limitation, individuals, partnerships, incorporated associations, unit and other forms of trusts and corporations. Entities that are not a legal person (for example, an unincorporated joint venture) cannot apply for a licence.

For the purpose of this application form, reference to the term "Officer" include the applicant's directors and secretary, and other persons who make or participate in making decisions that affect a substantial part of the business of the applicant (e.g. Chief Executive Officer, Chief Financial Officer, General Manager etc.).

Applicants should list the information requested in the spaces provided in this form and enclose additional information when required. Applicants must take all reasonable steps to ensure the information provided in the application form is complete, true and correct and are required to make a declaration to that effect in the application form. Failure to disclose information or misrepresent any matter relevant to such information may result in a licence not being issued or in the suspension or cancellation of a licence at a later time.

Applicants are responsible for providing the Commission with current, accurate and relevant documentation. This will ensure that the application is processed promptly and without delay. All applications are assessed on a case-by-case basis. If insufficient information is provided with an application, the Commission will request additional information to be submitted before the application is considered further.

Application fees

Applicants should also enclose the application fee (presently set by the Minister for Resources and Energy at \$1,000 per licence) with their application.

How to lodge an application

Applicants should send their completed application form in writing and electronically.

- In writing to:
Essential Services Commission of SA
GPO Box 2605
Adelaide SA 5001
- Electronically to:
licensing@escosa.sa.gov.au

Consultation and Confidentiality

The Commission will consult with relevant government, industry and consumer groups in the conduct of its licensing functions through a public consultation process. Consequently, applications and/or

supporting information will be made available on the Commission's website and in hard copy from the Commission's office for this purpose.

If applicants believe that they are providing confidential information when completing this form they should write "this information is confidential" after any such information. It is the applicant's responsibility to ensure this is clearly highlighted on the form. Applicants should also provide a 'non-confidential' version of the form capable of publication on the Commission's website.

The Commission will use information supplied in applications and in support of applications in accordance with the requirements of Part 5 of the Essential Services Commission Act 2002. Applicants claiming confidentiality are encourage to familiarise themselves with Part 5. Applicants should note that the Commission may disclose confidential information in some circumstances.

Further information

Applicants should note that the Commission may ask applicants who have submitted an application form to provide further information to the Commission, or to clarify the information that they have already provided if required.

Please note that, in the event that an application lacks sufficient detail and the Commission is required to request additional information from an applicant, delays in the assessment of the application may occur.

Licence Application Form

1 The Applicant

Applicants must answer all questions in this section.

1.1 Identity of Applicant

State the full name of the applicant. The applicant is the person who will be undertaking the electricity generation operations that will be the subject of the licence. Joint applicants should each complete an application form, and submit their application forms at the same time, with a covering letter explaining that a joint application is being made.

Name: Hornsdale Power Reserve Pty Ltd.....
.....

1.2 Legal Identity of Applicant

Provide information about the applicant, (i.e. whether the applicant is a natural person, private limited company or partnership, etc). If the applicant is a body corporate, please also state the jurisdiction in which the applicant is registered, and the applicant's ABN/ACN.

Hornsdale Power Reserve Pty Ltd (ACN: 619 311 983) is a special purpose vehicle proprietary company limited by shares and registered in New South Wales. Its registered address is:

Neoen Australia Pty Ltd.....
.....
Suite 1, Level 10, 227 Elizabeth Street.....
.....
Sydney, NSW 2000.....
.....

Hornsdale Power Reserve Pty Ltd is currently a wholly owned subsidiary of Neoen SA. For clarity, kindly refer to the corporate structure diagram provided in Section 1.6.

1.3 Address and Contact Details of Applicant

Business Address: Suite 1, Level 10, 227 Elizabeth Street, Sydney

.....

State: New South Wales Post Code: 2000.....

Postal Address (if different to Business Address): As above

.....

State: Post Code:

Telephone: Facsimile:

E-mail:

1.4 Contact Person on behalf of Applicant

The full name, title and contact details of a person to whom the Commission can direct enquiries and correspondence about the application.

Full Name: Adam Dodds

Title: Project Engineer.....

Business Address: Suite 1, Level 10, 227 Elizabeth Street, Sydney

.....
State: New South Wales Post Code: 2000.....

Postal Address (if different to Business Address): As above

.....
State: Post Code:

Telephone: Facsimile:

E-mail:

1.5 Contact Person for Licence Fees

The full name and/or title of the person to whom the Commission can direct enquiries and correspondence about licence fees.

Full Name: Adam Dodds

Title: Project Engineer

Business Address: Suite 1, Level 10, 227 Elizabeth Street, Sydney

.....
State: New South Wales Post Code: 2000.....

Postal Address (if different to Business Address): As above

.....
State: Post Code:

Telephone: Facsimile:

E-mail:

1.6 Diagram of Corporate or other Structure

Please attach with this application form details of the corporate or other structure, including details of any related companies within the meaning of the Corporations Act 2001; and a diagram of the organisational chart, including composition of the board, management and other key personnel responsible for the key functions of the business.

Hornsdale Power Reserve Pty Ltd is a wholly owned subsidiary of HPR Finco Pty Ltd. This company provides the guarantee and security over its shares held in Hornsdale Power Reserve Pty Ltd, its rights under relevant shareholder loans, and, in each case, limited recourse to the shared assets. Hornsdale Power Reserve Pty Ltd provides security over all its assets.

HPR Finco Pty Ltd is a wholly owned subsidiary of HPR Holdco Pty Ltd, the holding company. HPR Holdco Pty Ltd provided the funds from shareholder equity contributions to Hornsdale Power Reserve Pty Ltd through HPR Finco Pty Ltd.

Hornsdale Power Reserve Pty Ltd, HPR Finco Pty Ltd, and HPR Holdco Pty Ltd are a consolidated group for tax purposes.

HPR Holdco Pty Ltd is owned by Neoen International SAS (100% shareholder), a wholly owned subsidiary of Neoen SA.

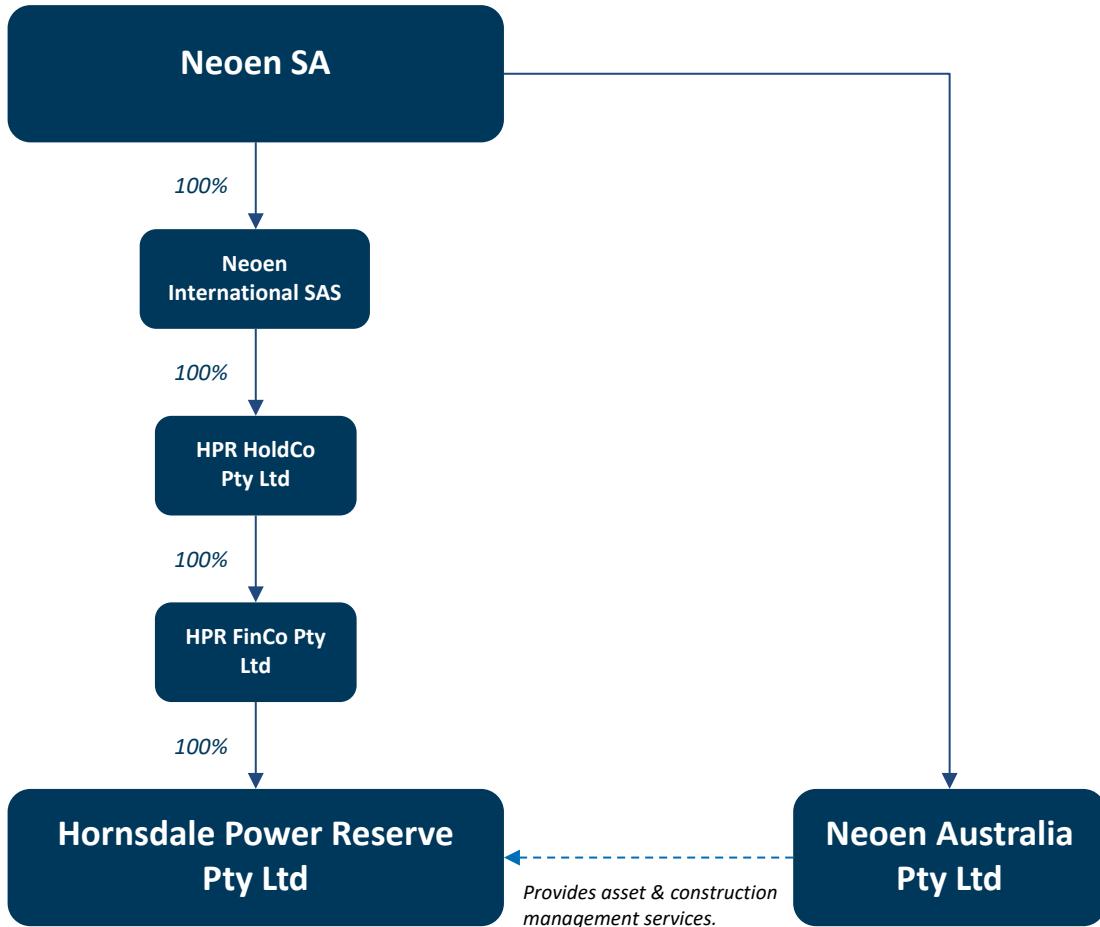


Figure 1 - Corporate Structure

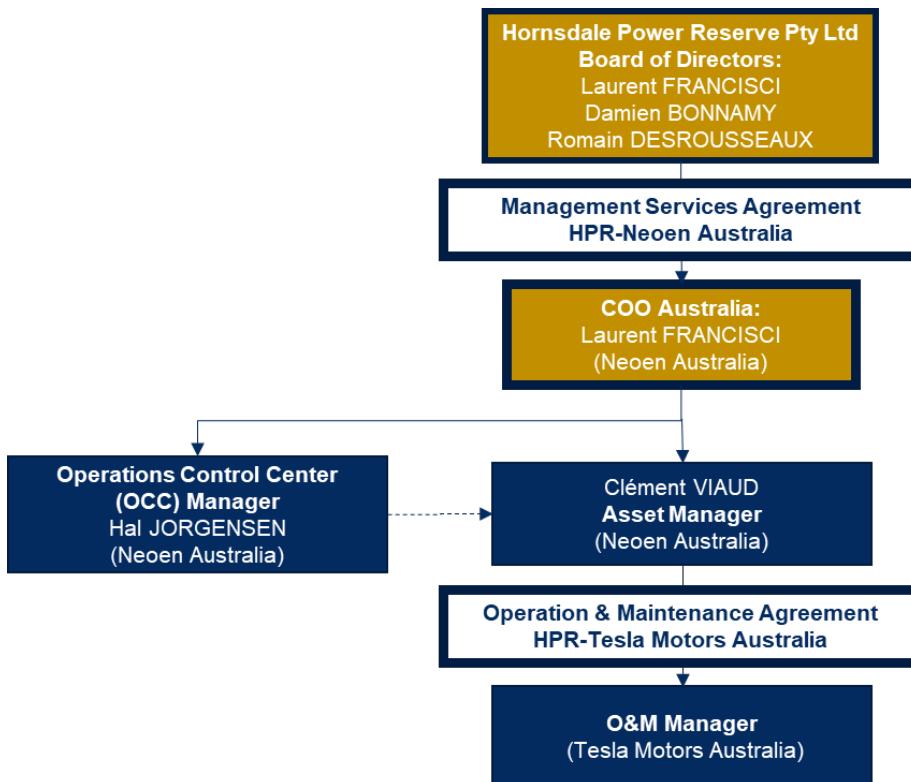


Figure 2 - Organisational Structure

2 The Licence

Applicants must answer all questions in this section.

2.1 Date from which Licence is sought

Applicants should usually allow the Commission a minimum of 12 weeks to consider an application, as a public consultation period of at least four weeks forms part of the Commission's consideration of licence applications. If the applicant seeks to have the licence issued by a certain date, provide this date. Please note that the Commission does not undertake to issue the licence by this date.

Hornsdale Power Reserve Pty Ltd is seeking a variation of our Electricity Generation Licence (last varied by the Essential Services Commissioning on 16 October 2019) in accordance with section 27 of the Electricity Act 1996 (SA) as soon as possible and in any event by no later than **28/02/2020** in order to be able to finalise the AEMO registration process and be ready to participate in the National Electricity Market by early March 2020.

2.2 Nature and scope of operations for which Licence is sought

Applicants for a generation licence must state the location of the generation plant, the expected name plate capacity of the generation plant, the type of generation and fuel used and some details about how the generator is to be connected to the network. Applicants for a wind generation licence must attach a map showing the location of the wind turbines.

The Hornsdale Power Reserve is located approximately 17km north of Jamestown in South Australia, in the locality of Hornsdale.

When the expansion of the facility is complete, Hornsdale Power Reserve will have a total capacity of 150 MW. The system consists of an installation of Tesla Powerpacks and inverters capable of discharging more than 185MWh at the time of completion.

The Hornsdale Power Reserve will be connected to the 275 kV transmission network through the Mount Lock Substation facility built by ElectraNet, between existing Canowie and Davenport substations.

3 Suitability of applicant to hold a licence

Applicants must answer all questions in this section.

3.1 Standard of honesty and integrity shown by Applicant

In deciding whether the applicant is a suitable person to hold a licence, the Commission may:

- ▶ consider the applicant's previous commercial and other dealings, and
- ▶ the standard of honesty and integrity shown in those dealings.

Please provide information that will assist the Commission in its consideration of this matter. If the applicant:

- ▶ has been found guilty of any criminal offence,
- ▶ has been successfully prosecuted under any Territory, State or Commonwealth legislation (such as the Australian Securities and Investments Commission Act 2001 or the Competition and Consumer Act 2010) or
- ▶ has been the subject of disciplinary action,
- ▶ has been the subject of any past or present administrative or legal actions in relation to an authorisation, authority, or licence in any industry,

details of such matters must be disclosed. Failure to disclose such information or misrepresent any matter relevant to such information may result in the cancellation of a licence.

The Commission may use the service of an external expert to assist with the assessment of the applicant's standard of honesty and integrity.

Hornsdale Power Reserve Pty Ltd was registered under the Corporations Act 2001. It is the "Special Purpose Vehicle" dedicated to Construction, Operation and Maintenance for the Hornsdale Power Reserve.

With Neoen International SAS as the sole shareholder, Hornsdale Power Reserve Pty Ltd has access to significant expertise and knowledge of both construction and operation activities of renewable infrastructure. Please refer to section 1.6 for a corporate structure diagram.

Neoen International SAS management and employees are at all times expected to act lawfully, with integrity and professionalism in all activities, internally and externally. Both groups have their own code of conduct to which all employees formally adhere. Neoen's Code of Conduct is attached to this application as Attachment 3.1.1.

Hornsdale Power Reserve Pty Ltd, HPR Finco Pty Ltd, HPR Holdco Pty Ltd, and Neoen International SAS have not committed any offences against, or been prosecuted under any Territory, State or Commonwealth legislation in Australia.

3.2 Standard of honesty and integrity shown by Officers and major shareholders of Applicant

Applicants should address responses to this question in the same manner as 3.1 above except here it relates to officers and major shareholders of the applicant.

Please also supply details of any policies and procedures addressing the probity and competence of officers and other key management staff.

None of the officers listed in section 3.3 hereunder have displayed any prior misconduct, or experienced refusal or suspension from licensing or professional membership.

Neoen International SAS has not breached any statutory obligations, committed any criminal or civil offence or been successfully prosecuted under any applicable legislation in its operating jurisdiction.

None of Hornsdale Power Reserve Pty Ltd's Directors have been disqualified from managing corporations under the Corporations Act 2001.

None of the Officers listed have an actual or potential conflict of interest likely to affect their ability to carry out their role.

The Applicant, through the proposed structure, has demonstrated competence in managing a generation business.

The Neoen group has an established code of conduct, policies and procedures applicable to Directors, managers and employees.

3.3 Names and addresses of the Officers of Applicant

State the names and addresses of the officers of the applicant. "Officers" of the applicant include the applicant's directors and secretary, and other persons who make or participate in making decisions that affect a substantial part of the business of the applicant.

Full Name: Laurent Francisci

Date of Birth: 18/3/1968 Office Held: Director

Address: Suite 1, Level 10, 227 Elizabeth Street, Sydney

.....
State: New South Wales Post Code: 2000.....

Full Name: Damien Bonnamy

Date of Birth: 17/11/1975 Office Held: Director

Address: Suite 1, Level 10, 227 Elizabeth Street, Sydney

.....
State: New South Wales Post Code: 2000.....

Full Name: Romain Desrousseaux.....

Date of Birth: 03/11/1975 Office Held: Director

Address: 6 Rue Ménars 75002 Paris

.....
State: N/A Post Code: 75002.....

3.4 Names and addresses of major shareholders of Applicant

State the full names and addresses of the major shareholders of the applicant

Name: NEOEN International SAS.....

Date of Birth (if applicable): Office Held (if applicable):

Address: 6 Rue Ménars 75002 Paris

.....
State: N/A Post Code: 75002.....

3.5 Details of the group members

This is information about entities controlled by the applicant, or by the ultimate parent entity of the applicant (if applicable).

Section 1.6 contains a diagram of the entities which make up the Group.

The entities Hornsdale Power Reserve Pty Ltd are registered in Australia. Audited financial statements are consolidated at group level for the economic entity comprising Neoen SA and its subsidiaries.

3.6 Additional information

Please answer the following questions.

- ▶ Is the applicant a resident of, or does it have permanent establishment in, Australia? Where the answer to this question is no, please provide further detail.

Yes

- ▶ Is the applicant under external administration (as defined in the Corporations Act 2001) or under a similar form of administration under any laws applicable to it in any jurisdiction? Where the answer to this question is yes, please provide further detail.

The applicant is not under external administration

- ▶ Is the applicant immune from suit in respect of the obligations under the Electricity Act 1996? Where the answer to this question is yes, please provide further detail.

The applicant is not immune from suit in respect of the obligations under the Electricity Act 1996

- ▶ Is the applicant capable of being sued in its own name in a court of Australia? Where the answer to this question is no, please provide further detail.

Yes

3.7 Financial resources available to the Applicant

Provide information about the financial resources available to the applicant. If the applicant is a company, please also enclose:

- ▶ copies of all audited profit and loss statements and balance sheets for the last three financial years (including all notes), and

- ▶ director's declaration that the financial statements comply with accounting standards, give a true and fair view, have been made in accordance with the Corporations Act and that there are reasonable grounds to believe the company/entity will be able to pay its debts as and when they fall due; and
- ▶ the director's report and the audit opinion.

If the applicant is a subsidiary company, please also provide:

- ▶ copies of all audited profit and loss statements and balance sheets of the applicant's parent company for up to the last three financial years.

The applicant should also submit copies of:

- ▶ its business plans including at least strategic direction and objectives, identified opportunities in the market place and forecast results; and
- ▶ evidence of capital and liquidity support in place, including any bank or cross guarantees, to support the business and evidence of negotiations with the network service provider concerning credit support arrangements.

Hornsdale Power Reserve Pty Ltd has a balance date of 31/12 and produces financial statements as at that date each year.

As HPR has only been in business since 2017 the two most recent audited annual financial statements (2017 and 2018) and associated declarations are included in Attachment 3.9 for both HPR and its parent company HPR FinCo Pty Ltd with this application (provided in confidence).

HPR engages in the energy market and earns money through (1) capacity and grant payments from the SA government, (2) providing ancillary services across 6 FCAS markets, and (3) engaging in energy arbitrage. The mission of the company is to support the stability of the grid, reducing the risk and severity of grid events such as black-outs, and to maximise returns to equity. The battery will be operational for c. 15 years, and in 2020 we expect revenues of c. \$30m.

The expansion of HPR is supported by \$8m of grant funding from ARENA, \$50m of debt funding from CEFC, and \$15m of grant funding from SA government. Further, \$8m of equity has been injected into the entity to meet construction costs.

3.8 Additional Details of Structure of Applicant

If the applicant is part of a group of related companies, and/or party to a partnership, joint venture or alliance agreement with another company, please provide:

- ▶ contractual arrangements (e.g. alliance contracts, associate contracts, establishment contracts) that define relationships within the group – including shared resources, guarantees, revenue flows, obligations and or responsibilities.

N/A

.....

.....

.....

.....

3.9 Human resources available to the Applicant

Provide information about the human resources available to the applicant. This includes:

- ▶ the experience and qualifications of those employees outlined in the organisational chart (see point 1.6); and
- ▶ if the applicant will employ contractor/s to assist with the licensed operations, the name of that contractor/s, details about the experience of the contractor/s in such operations and details of the processes in place to ensure the contractor/s complies with the regulatory obligations imposed by the licence.

HPR, through its parent entities can draw on a very experienced employee base. With experience in generation design, construction and operation. Profiles of key employees for the Hornsdale Power Reserve project in Australia and Overseas are detailed hereunder:

Laurent Francisci Chief Operating Officer – Australia

Based in Sydney, Laurent oversees all the operations activities within Neoen, including construction and asset management.

Dual Australian and French citizen, Laurent has acquired strong general management skills and experiences in the infrastructure sector over the past 25 years. This was achieved by driving multi-million-dollar bids, projects and business units within the Degremont group (Water Treatment, now Suez) and LDCOM (Telecommunications, which became Neuf Cegetel).

Laurent managed business units and projects involving multi-disciplinary mix of civil, building, mechanical and electrical. Water schemes, telecom infrastructure and associated power lines, pipelines, tunnels and marine-works were the core challenges managed under various contractual schemes: PPPs, alliances, integrated or non-integrated joint-ventures, or as a main contractor.

Laurent holds a MSc (Civil Eng) from ESTP (Paris) and an MBA from Macquarie University (MGSM, Sydney).

Damien Bonnamy Chief Financial Officer – Australia

Based in Sydney, Damien oversees all finance activities within Neoen Australia. He is generally supervising the financing of all Neoen projects in Australia.

After starting his career in Brazil's energy sector, Damien joined Neuf Cegetel's Finance department in 2000 as financial controller of the Wholesale Division. In 2009, he was appointed the Head of the Planning department at Louis Dreyfus Commodities. Damien joined Neoen in 2011 as CFO of the company's international ventures.

His academic background includes an undergraduate degree from University Paris Dauphine and a post-graduate degree from Paris Assas in Corporate Finance.

Romain Desrousseaux Deputy CEO – Neoen SA

Based in Paris.

Romain started his career at Neuf Telecom where he managed the company's investment program in high speed internet and then led the company's restructuring following its merger with Cegetel. In 2008, he joined Louis Dreyfus Commodities, first as deputy IT director and after 2 years became the COO of its Middle East & Africa operations. In January 2013, Romain joined Neoen as the General Manager of Neoen International in order to drive the development of projects outside of France.

Romain graduated from Ecole Normale Supérieure.

Clément Viaud	Head of Asset Management – Australia Based in Canberra, Clement manages the team overseeing all operating assets of Neoen. He is managing the operations and contractual relationships during the generation life of the projects.
Hal Jorgensen	Manager Operations Control Centre (OCC)– Australia Based in Canberra, Hal oversees Neoen's OCC composed of 7 controllers who follow Neoen Australia assets operations 24/7 in the Neoen operations control room in Canberra. There are highly trained and monitor the assets and the power market on a real time basis. They can react immediately in case of strong market movements, in special cases such as negative prices or in case of unplanned outage. Hal has over 15 years of experience in operations, construction and supervision of various aspects of renewable facilities.

3.10 Technical resources available to the Applicant

Applicants for a generation licence are asked to provide details about the availability of technical resources to be used in carrying out the operations for which a licence is sought. The information should include details about the technically qualified staff available to the applicant and (if relevant) details of experience gained in similar operations.

Where applicants are relying on a third party to provide staff and resources to meet the technical requirements of the generation licence, please provide:

- ▶ a list of all functions and activities being proposed to outsource;
- ▶ details of any formal agreement/s to provide services, including confirmation that the third party possess relevant technical competencies to conduct the proposed activities;
- ▶ a summary of the third party's technical capacity to meet relevant obligations, including relevant accreditations; and
- ▶ a summary of the third party's experience and knowledge in the relevant area.

HPR has dedicated project and asset management teams, backed-up by external consultants/contractors to oversee the construction of the facility and the ongoing operation and maintenance activities.

Neoen's 24/7 Operations Control Centre (OCC) and dedicated Asset Manager are located in Canberra and have responsibility for:

- monitoring the good operation and maintenance of the asset on a day to day basis;
- manage the market trading activity across our portfolio of assets;
- managing relationship with AEMO, compliance with the NER, collecting settlements and accordingly preparing monthly reports to offtakers in order to offset differences between Market sales and PPA price for the applicable dispatched quantities;
- being the primary contact of the network service provider (NSP) and AEMO for operation of the asset (e.g. switching instructions, compliance or any relevant queries);
- being the primary contact of various stakeholders to ensure continuing compliance of the asset with agreements in place (approval conditions, environmental, cultural heritage, etc.).

This support is provided by Neoen Australia through a Management Services Agreement.

HPR is working with GHD as owners engineer (www.ghd.com) to assist with the construction, connection and registration process.

The battery supplier (Tesla) is the primary contractor for the Engineering, Procurement and Construction (EPC) contract and also the operations phase under an existing O&M contract.

Evidence of contracts is contained in Attachment 3.10 provided to the commission in confidence.

3.11 Quality of Electricity Produced/Connection Agreement

The Commission may not issue a generation licence unless it is satisfied that the generating plant (or proposed generating plant) will generate electricity of the appropriate quality for the relevant transmission or distribution network. The Commission will be satisfied that the electricity is of an appropriate quality if the applicant has entered into a connection agreement which meets the Commission's technical requirements with the licensed operator of the relevant transmission or distribution network. Applicants are therefore required to submit a copy of such a connection agreement.

HPR is in the process of negotiating a variation to its existing Transmission Connection Agreement with ElectraNet. A Master Preliminary Works Agreement (MPWA) is in place between HPR and ElectraNet for the provision of services for the 5.3.9 process. Evidence of contracts is contained in Attachment 3.11 provided to the Commission in confidence.

3.12 Risk Management

Provide confirmation and reasonable evidence that the applicant's management has identified the risks associated with electricity operations and has established, utilises and relies upon risk management systems and processes which are adequate, accurate and current to address those risks. A copy of the applicant's risk management strategy should be submitted.

HPR, through its parent entities including Neoen utilises corporate risk management processes as an integral part of the normal operation of its businesses.

Neoen's risk management relates to measures implemented to assess, analyse and manage the risks to which it is subject in the course of its business worldwide. Neoen places great importance on a proper risk culture and has taken a structured approach to carry out active risk management policies to ensure that its major and operational risks are recognized and managed. The risk management system that it has implemented is applicable to the entire group, including all of its activities, functions and locations.

Risk management is a priority for Neoen, and it has established a consistent approach to risk management and internal controls. Neoen's risk management and internal control systems are based on a set of methods, policies, procedures, behaviours and actions that aim to ensure that the necessary measures are taken to:

- verify the effectiveness of transactions and an efficient use of resources; and
- identify, analyse and manage risks that are likely to have a significant impact on Neoen's assets, results, transactions and achievements of its objectives, whether operational, commercial, legal or financial, including those relating to compliance with applicable laws and regulations.

An appropriate risk management approach and structuring tools have been established to support internal systems at every level of Neoen's organisation.

The local organisation, selected contractors and consultants ensure that HPR enjoys exemplary market knowledge to manage all possible risks related to financing, constructing, operating and maintaining a solar farm of this scale.

The HPR-specific risk management plan and risk register were compiled during the development phase of the project and is subject to regular reviews as the project transitions to construction and operations phases. The HPR risk management plan and risk register is included in Attachment 3.12.1 & 3.12.2.

Operational risks are managed by Tesla as the O&M contractor, an example of the Job Hazard Analysis process which is followed on site and associated risk register is included as Attachment 3.12.3.

3.13 Development Act Approval

Please advise if the applicant has or is applying for approval under the Development Act 1993 (SA). If so, provide details, including the date on which approval was or will be granted.

A Crown Sponsorship was granted to the HPR expansion project on 16/9/2019 under section 49 of the Development Act 1993 exempting the requirement to obtain a Development Approval from the State Commission Assessment Panel. A copy of the Crown Sponsorship is included in Attachment 3.13.

3.14 Registration with AEMO

Please advise if the applicant will apply to register with AEMO. If so, provide details. Applicants for a wind generation licence should note that registration as a semi-scheduled market participant is required for all new generators and all expansions to existing wind generation plant.

Hornsdale Power Reserve Pty Ltd holds valid registration in accordance with the National Electricity Rules and will be applying for re-registration with AEMO as a market generator (scheduled market participant) and a market customer (scheduled market participant) to reflect the expanded facility's capacity. This process will begin immediately following the execution of the TCA variation. Evidence of HPR's current AEMO registrations are included in Attachment 3.14.

3.15 Licences held by the Applicant in other Australian jurisdictions.

If the applicant holds, or has previously held, electricity and/or gas licences in other Australian jurisdictions please provide details. If a licence previously held has been suspended or cancelled, please provide details.

Hornsdale Power Reserve Pty Ltd currently holds an electricity licence with ESCOSA, granted on 13 October 2017.

3.16 Previous unsuccessful licence applications in other Australian jurisdictions

Please state whether the applicant has applied for an electricity or gas licence in another Australian jurisdiction and not been issued with a licence, and provide details if relevant.

N/A

3.17 Licences held by Associates of the Applicant

If an associate of the applicant (within the meaning of the Corporations Act) holds an electricity or gas licence in South Australia or in other Australian jurisdictions, please provide details.

Neoen is present in 10 countries, with plants already operating, under construction or with financing underway. Neoen has 2+GW in operation or under construction, all of Neoen's assets hold the relevant licences, depending on the jurisdictions in which they are located.

Neoen additionally holds existing Generating licences in South Australia and Victoria through its associated entities:

- Electricity Generation Licence (ESCOSA) for HWF1 Pty Ltd granted on 12 May 2016;
 - Electricity Generation Licence (ESCOSA) for HWF2 Pty Ltd granted on 1 February 2017;
 - Electricity Generation Licence (ESCOSA) for HWF3 Pty Ltd granted on 11 August 2017;
 - Electricity Generation Licence (ESCV) for Numurkah Solar Farm Pty Ltd granted on 27 February 2019;
 - Electricity Generation Licence (ESCV) for Bulgana Wind Farm Pty Ltd granted on 27 February 2019.
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3.18 Compliance Plans

Applicants are required to submit a copy of their Compliance Plan which demonstrates how the compliance systems the applicant has (or will have) in place will ensure compliance with all of the applicable regulatory obligations imposed by the relevant licence.

Neoen has implemented an internal control system on the global level to ensure the reliability of its accounting and financial information, to ensure compliance with applicable laws and regulations and the effectiveness of transactions. It is mainly based on a culture of proper internal controls, dedicated control activities and active management of the internal control system.

The culture of internal controls is based on Neoen's corporate culture. Neoen has defined and implemented a charter of ethics and maintains a managerial culture that is sensitive to risk management.

Control activities have been defined for ten major processes that have been identified by Neoen, whether operational, support or cross-functional. For each of them, control activities have been identified and circulated through "control matrices". The control activities were defined according to the operational risks identified in each process and those identified in Neoen's risk mapping. They have been detailed and explained to facilitate their implementation by all group subsidiaries. In addition to this organisation, a set of concrete tools (checklist, document templates, etc.) has been designed and circulated throughout the group for a better assimilation and implementation of these control activities, on a uniform basis across Neoen's locations.

In addition, the implementation of the internal control system is evaluated during annual internal control self-assessment campaigns, the first of which was launched in 2017. Each manager assesses, within his area of responsibility, the effectiveness of the internal control activities established by Neoen. This process enables the evaluation of the level of internal control deployment within Neoen, as well as the creation of action plans aimed at reinforcing activities that are currently not subject to sufficiently strong internal controls.

Relevant "control matrices" which describe the best internal control practices for main process risk, be it operational or financial risks are included along with relevant policies and documentation included in Attachment 3.18.1

HPR additionally maintains the following plans (included in Attachment 3.18) to ensure regulatory compliance with legislative and regulatory obligations:

- HPR Business Continuity Plan;
- HPR Generator Compliance Plan;
- HPR Safety, Reliability, Maintenance and Technical Management Plan.

HPR engaged GHD to undertake the annual ESCOSA (financial year 2018/2019) compliance audit letter for which the letter is included in Attachment 3.18.5.

Note that these plans are subject to regular reviews and will be subject to update as required following the completion of the expansion project.

3.19 Additional Information

The Commission encourages applicants to provide any additional information they consider would be of assistance in supporting the application. Please provide below.

4 Factors specified in the Essential Services Commission Act 2002

In considering a licence application, the Commission must have as its primary objective protection of the long term interests of consumers with respect to the price, quality and reliability of electricity supply, and must also have regard to the need to:

- (a) promote competitive and fair market conduct;
- (b) prevent misuse of monopoly or market power;
- (c) facilitate entry into relevant markets;
- (d) promote economic efficiency;
- (e) ensure consumers benefit from competition and efficiency;
- (f) facilitate maintenance of the financial viability of regulated industries and the incentive for long term investment;
- (g) promote consistency in regulation with other jurisdictions.

If the applicant believes that information about their application would assist the Commission in its consideration of these factors, the applicant should provide such information below.

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5 Application fees

Applicants for a licence must pay to the Commission an application fee fixed by the Minister for Energy from time to time. This fee is presently set at \$1,000 per licence. Please enclose this fee with the application. An application cannot be considered until this fee has been received and cannot be refunded.

6 Declaration

All information in this application for the issue of a licence to authorise electricity generation operations in the electricity supply industry in South Australia must be verified by a Statutory Declaration of the applicant, in accordance with the provisions of the *Oaths Act 1936* (SA)⁴, stating that the information contained in the application is true and correct to the best of the applicant's knowledge, information and belief.

Where the applicant is a body corporate, evidence of the relevant authority of the declarant to sign on behalf of the body corporate must also be provided to the Commission.⁵

Statutory Declaration

I Laurent Francisci, Director.....

of Hornsdale Power Reserve Pty Ltd.....

do solemnly and sincerely declare that the information contained in this Application for the issue of a licence to authorise electricity generation operations in the electricity supply industry in South Australia is true and correct to the best of my knowledge information and belief.

And I make this solemn declaration conscientiously believing the same to be true, and by virtue of the provisions of the *Oaths Act 1936*.

Date 12/12/2019

Signature 

(Where the applicant is a body corporate, the declaration must be made by a person authorised by body corporate to sign on its behalf)

Declared at: Sydney this 12 day of 12/2019

Before me: J. V. Hill
SOLICITOR, NSW

(Signature of Justice of the Peace or other person authorised under the *Oaths Act 1936*)

Attachment 1

⁴ or equivalent legislation in other Australian jurisdictions.

⁵ The Commission will accept a copy of a Board minute (or circulating resolution) giving approval for the declarant to sign on behalf of the applicant as evidence of the relevant authority.

2017 model licence conditions for new generators

Interpretation of this schedule

1. Interpretation

- 1.1. Terms used in this schedule and also in the National Electricity Rules (NER) have the same meaning in this schedule as they have in those rules (unless otherwise specified or unless the context otherwise requires).
- 1.2. For the purposes of this schedule, the term:

Commission - means the Essential Services Commission, established under the Essential Services Commission Act 2002.

continuous uninterrupted operation means that, for voltage disturbances within the continuous operating range (that is, connection point voltage fluctuating within 90 percent and 110 percent of normal voltage), active power must be maintained (unless there has been a change in the intermittent power source) and reactive power must be managed to meet voltage control requirements.

Disturbance ride through capability

2. Disturbance ride through capability – general requirements

- 2.1. The non-synchronous generating system must meet the following requirements:
 - (a) The low voltage ride-through activation threshold (LVRT), as measured at the low voltage (LV) terminals of the generating units and dynamic reactive support plant (as applicable), must not be less than 85 percent of nominal voltage.
 - (b) The generating system must maintain continuous uninterrupted operation for voltage disturbances as specified in clauses 3, 7 and 8.
 - (c) Where LVRT and high voltage ride-through (HVRT) requirements in the NER are specified in respect of the generating system's connection point, the withstand capability of individual generating units is to be determined at the LV side of the generating unit's transformer. All individual generating units must remain connected for connection point voltages within the LVRT/HVRT withstand requirements, irrespective of the generating system's transformer tap position.

3. Disturbance ride-through (reactive current injection)

- 3.1. The generating system must supply additional capacitive reactive current (reactive current injection) of up to 4 percent of the maximum continuous current of the generating system (in the absence of a disturbance) for each 1 percent reduction of connection point voltage below 90 percent of normal voltage, as shown in Table 1. This requirement applies at the LV terminals of the generating units and dynamic reactive support plant (as applicable) for power system disturbances resulting in a voltage reduction of up to 100 percent of normal voltage at the connection point.
- 3.2. The generating system must supply additional inductive reactive current (reactive current absorption) of up to 6 percent of the maximum continuous current of the generating system (in the absence of a disturbance) for each 1 percent increase in connection point voltage

above 110 percent of the normal voltage, as shown in Table 1. This requirement applies at the LV terminals of the generating units and dynamic reactive support plant (as applicable).

- 3.3. The reactive current injection must be maintained until the connection point voltage returns to within the range of 90 percent to 110 percent of normal voltage.

Table 1: Reactive current injection requirements

Reactive current response	Current injection gain (%)	Current absorption gain (%)	Minimum amount of contribution as percentage of rated current	Speed of contribution	
				Rise time (millisecond)	Settling time (millisecond)
Synchronous	4	6	250	30	N/A
Non-synchronous	4	6	100	30	60

- 3.4. The amount of reactive current injection required may be calculated using phase-to-phase, phase-to-ground, or sequence components of voltage. For the last method, the ratio of negative-sequence to positive-sequence current injection must be X.⁶
- 3.5. The generating system must comply with the following response characteristics for reactive current injection:
 - (a) A rise time no greater than 30 milliseconds and a settling time no greater than 60 milliseconds applies to reactive current injection requirements.⁷
 - (b) The reactive current injection requirements described above apply for all pre-disturbance reactive power control modes (voltage control, power factor control and reactive power control).⁸
 - (c) The reactive current response must be adequately damped as defined in the NER.
 - (d) Upon occurrence of a fault, reactive power consumption must not exceed 5 percent of maximum continuous rated current of the generating system and must be limited to the rise time duration set out in Table 1.
 - (e) The post-fault reactive power contribution of the generating system must be sufficient to ensure that the connection point voltage is within the following ranges for continuous uninterrupted operation:
 - (i) voltages over 110 percent for the durations permitted under NER clause S5.1a.4;
 - (ii) 90 percent to 110 percent of normal voltage continuously;
 - (iii) 80 percent to 90 percent of normal voltage for a period of at least 10 seconds; and
 - (iv) 70 percent to 80 percent of normal voltage for a period of at least 2 seconds.

4. Disturbance ride through (active power injection requirements)

⁶ The exact ratio of negative-sequence to positive-sequence current injection will be specified by the Commission at the time the licence is issued.

⁷ The settling time requirement does not apply to synchronous generators.

⁸ This requirement does not apply to synchronous generators.

- 4.1. The generating system must be capable of restoring active power to at least 95 percent of the level existing just prior to a fault within X milliseconds after disconnection of the faulted element.⁹
- 4.2. Upon occurrence of a fault, a generating system's transient active power consumption must not exceed one power frequency cycle and must not exceed 5 percent of the maximum continuous rated current of the generating system.

5. Multiple low voltage disturbance ride-through

- 5.1. The generating system, including, but not limited to, each of its generating units and dynamic reactive power support plant, must be capable of withstanding both of the following within a five minute interval:
 - (a) Any combination of voltage disturbances causing the voltage at the respective low voltage (LV) terminals of the equipment to drop below 85 percent of the nominal voltage for a total duration of 1,500 milliseconds regardless of disturbance type, duration, and residual voltage at the generating unit's terminals. The total number of voltage disturbances for which successful ride-through is required is limited to 15. Each fault can be a solid fault resulting in 100 percent voltage drop at the connection point with duration not exceeding the longest time expected to be taken for the breaker fail protection system to clear the fault, as set out in Table S5.1a.2 of the NER.
 - (b) A single worst-case long-duration shallow voltage disturbance, causing the voltage at the connection point to drop to 70- 80 percent of the normal voltage for a total duration of 2,000 milliseconds.
- 5.2. Subject to compliance with the requirements in clause 5.1, the generating system, including, but not limited to, each of its generating units and dynamic reactive power support plant, is not required to withstand any additional voltage variation exceeding ±10 percent of nominal voltage experienced at the respective LV terminals within 30 minutes from the commencement of the first variation.¹⁰

6. Disturbance ride-through (high voltage disturbance ride-through)

- 6.1. The generating system must have a level of over-voltage withstand capability consistent with the levels shown in Table 2.¹¹
- 6.2. The generating system must maintain continuous uninterrupted operation for temporary over voltage durations as specified in Table 2.

Table 2: Required over voltage withstand capability

Temporary overvoltage (% of normal voltage)	110–115	>115–120	>120–125	>125–130	>130–140
Duration(s)	1,200	20	2	0.2	0.02

7. Disturbance ride-through (partial load rejection)

- 7.1. The non-synchronous generating system must be capable of continuous uninterrupted operation during and following a power system load reduction of 30 percent from its

⁹ The exact active power recovery time will be specified by the Commission at the time the licence is issued and will be between 100 and 500 milliseconds.

¹⁰ For synchronous generators, consideration will be given to the physical limitations of the plant. This may require a variation to this condition, to be determined by Commission at the time of issuing of the licence.

¹¹ Unless otherwise specified by the Commission at the time the licence is issued.

pre-disturbance level or equivalent impact from separation of part of the power system in less than 10 seconds, provided that the loading level remains above minimum load.

8. Disturbance ride-through (frequency disturbance ride-through)

- 8.1. The generating system must be capable of continuous uninterrupted operation for any combination of the following rates of change of frequency:
 - (a) ± 4 Hz/s for 250 milliseconds
 - (b) ± 3 Hz/s for 1 second, until such time as power system frequency breaches the extreme frequency excursion tolerance limits.¹²

9. Disturbance ride-through (voltage phase angle shift)

- 9.1. The generating system must not include any vector shift or similar relay/protective function acting upon voltage phase angle which might operate for phase angle changes less than 20 degrees.

Voltage control capability

10. Voltage control capability

- 10.1. The generating system must be capable of being controlled by a fast-acting, continuously variable, voltage control system which must be able to receive a local and remote voltage set point.
- 10.2. 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 or remotely at any time.
- 10.3. The voltage, power factor and reactive power control mode of the generating system must be capable of:
 - (a) being overridden by the disturbance ride through requirements specified in clauses Error! Reference source not found. to 9 (inclusive) during power system voltage disturbances, and
 - (b) automatically reverting to power factor or reactive power mode when the disturbance has ceased.

System strength

11. System strength

- 11.1. Individual components of plant within a generating system, which includes but is not limited to generating units and dynamic reactive power plant, must be capable of operating down to the following levels at the high voltage terminals in relation to each component:
 - (a) minimum short circuit ratio of 1.5, and
 - (b) minimum positive sequence X/R ratio of 2.

Active power control capability

12. Active power control capability

¹² For synchronous generators, consideration will be given to the physical limitations of the plant. This may require a variation to this condition, to be determined by the Commission at the time of issuing of the licence.

- 12.1. The 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.
- 12.2. To comply with clause 12.1:
 - (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 deadband for the active power response must be adjustable in the range from 0 to +/- 1.0 Hz.
- 12.3. 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.
- 12.4. The generating system must be capable of applying different deadband and droop settings in response to rising and falling frequency and for different levels of frequency change.

13. Active power control capability (AGC capability)

- 13.1. The generating system must have active power control capabilities that allow it to participate in existing national electricity market arrangements requiring automatic generation control (AGC).
- 13.2. At a minimum, the AGC must have the capability to:
 - (a) receive and respond to a remotely determined active power control setpoint, updated at a rate of every four seconds, transmitted to the generating system, and
 - (b) provide the following information to AEMO, upon a request from AEMO under NER clauses S5.2.6.1 or 3.8.2:
 - (i) actual active power output;
 - (ii) maximum raise limit;
 - (iii) minimum lower limit;
 - (iv) maximum raise ramp rate; and
 - (v) maximum lower ramp rate.

14. Active power control capability (rate of change of active power)

- 14.1. 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.

- 14.2. 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.
- 14.3. The generating system must be capable of setting a ramp rate limit with accuracy of within 10 percent.

15. Active power control capability

- 15.1. The generating system must have the capability to provide real-time information about its active power control settings to AEMO, including mode of operation, deadband and droop parameters and any other active power control setting that may change during real-time operation.

System restoration

16. System restoration

- 16.1. Where sufficient minimum fault level is available from online synchronous machines, the generating system must have the following capability in the event of a black system:
 - (a) the generating system must be capable of operation with auxiliary loads only for X minutes¹³ while system load is being restored, and
 - (b) the generating system, including, but not limited to, each of its generating units and dynamic reactive power support plant (as applicable) must have the capability to provide steady-state and dynamic reactive power when operating with auxiliary loads only for X minutes while system load is being restored.¹⁴

¹³ The exact duration will be specified by the Commission at the time the licence is issued.

¹⁴ The exact duration will be specified by the Commission at the time the licence is issued.



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