

# Yaloak South Wind Farm

## Application for Generation Licence

Prepared for: Essential Services Commission, Victoria

11 July 2017

**Document Details**

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## 1. Information on the Applicant and Nature of the Application

### 1.1 Information on the Applicant

#### 1.1.1 Introduction

In accordance with the Guidance Notes for Applications for Electricity Licences and the Transfer of Existing Electricity licences published by the Essential Services Commission and dated November 2006, Pacific Hydro Yaloak South Pty Ltd (PHYS) wishes to apply for a licence to generate, supply and sell electricity.

Pacific Hydro Yaloak South Pty Ltd has developed the 28.7MW Yaloak South Wind Farm (YSWF) at Mount Wallace, near Ballan, Victoria. YSWF consists of 14 Senvion turbines. Preliminary construction works were undertaken on site in Quarter 4 2016, with first generation expected in late 2017 and construction expected to be completed in June 2018.

#### 1.1.2 General Information

<b>Legal Name:</b>	Pacific Hydro Yaloak South Pty Ltd
<b>ACN:</b>	612 249 671
<b>Registered Address:</b>	Level 11, 474 Flinders Street, Melbourne VIC 3000
<b>Date of incorporation:</b>	6 May 2016
<b>Postal Address:</b>	As above
<b>Contact Person:</b>	Darren Sexton Executive Manager Operations and Development Phone: +61 3 8621 6458 Mobile: +61 418 884 828 Email: dsexton@pacifichydro.com.au

An executive summary of Mr Darren Sexton is provided<sup>1</sup>.

#### 1.1.3 Ownership

Pacific Hydro Yaloak South Pty Ltd is a wholly owned subsidiary of Pacific Hydro Pty Ltd (Pacific Hydro). Pacific Hydro is an independent, global owner, operator and developer of wind and hydro renewable energy assets. The company has a portfolio of 19 operating assets with an installed capacity of ~900 megawatts (MW) (gross) / 713MW (proportional) across Chile, Australia and Brazil.

Pacific Hydro has been developing and operating power plants since the early 1990s; delivering 349MW of renewable energy projects.

Pacific Hydro entities hold generation licences for its existing assets in Victoria including Codrington Wind Farm, Challicum Hills Wind Farm, Yambuk Wind Farm and the Portland Wind Farms which comprise of Cape Bridgewater, Cape Nelson, Cape Nelson North and Cape Sir William Grant wind farms.

#### 1.1.4 Incorporation Details

Pacific Hydro's Yaloak South Wind Farm is a 28.7 MW wind farm generator. The PHYS Constitution is annexed to this application<sup>2</sup>. The Certificate of Registration is also provided<sup>3</sup>.

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<sup>1</sup> Attachment 1 – Executive Summary, Darren Sexton

<sup>2</sup> Attachment 2 – Constitution of Pacific Hydro Yaloak South Pty Ltd

<sup>3</sup> Attachment 3 – Certificate of Registration

### 1.1.5 Corporate Structure

Pacific Hydro Yaloak South Pty Ltd is a wholly owned subsidiary of Pacific Hydro Pty Ltd via its parent company Pacific Hydro Yaloak Pty Ltd and Energy Pacific (Vic) Pty Ltd, which in turn is a wholly owned subsidiary of State Power Investment Corporation (SPIC).

Based in China, SPIC is a large state-owned enterprise under the administration of the Central Government with total assets of US\$113 billion and total installed capacity exceeding 100 gigawatts (GW).

SPIC has presence in 35 countries and regions, and employs around 140,000 staff.

A complete diagram of Pacific Hydro's corporate structure is provided<sup>4</sup>.

Executive summaries of Pacific Hydro Pty Ltd Board of Directors are also provided<sup>5</sup>

### 1.1.6 Organisational Structure

Pacific Hydro operates offices in Australia, Chile and Brazil. Its Australian employees total 150 and provide support for its Australian Engineering, Operations and Development. The structure of the organisation's management is outlined in the Australian Organisational Structure provided<sup>6</sup>

### 1.1.7 Experience of Key Personnel

Pacific Hydro has been operating in the Victorian electricity market for over 20 years. Key roles to the functioning of Pacific Hydro Yaloak South Pty Ltd are listed below:

- Chief Executive Officer
- Group Chief Financial Officer
- General Manager, Group Services
- Executive Manager, Operations and Development
- General Manager, New Business
- Executive Manager, Legal
- Executive Manager, HR Australia
- Executive Manager, Financial Services
- Executive Manager Strategy, Business Planning, Group Risk Management & Compliance
- Manager, Enterprise Risk & Compliance
- Manager, Group Reporting
- Executive Manager, Wholesale Markets
- Portfolio Manager
- Senior Business Analyst
- Manager, Electrical Engineering
- Executive Manager, Engineering and Operations Services
- Project Manager, Yaloak South Wind Farm

Experience of key personnel and the applicant are provided<sup>7</sup>

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<sup>4</sup> Attachment 4 – Pacific Hydro Corporate Structure

<sup>5</sup> Attachment 5 - Executive Summaries of Pacific Hydro Pty Ltd Board of Directors

<sup>6</sup> Attachment 6 - Pacific Hydro Australian Organisational Structure

<sup>7</sup> Attachment 7 – Experience of Key Personnel

### 1.1.8 Details of Contracts

Pacific Hydro manages its assets internally and has existing contracts in place for the provision of services to facilitate this role. In addition to these business-wide support services, Pacific Hydro Yaloak South Pty Ltd has entered into contracts with a wind turbine supplier for supply and installation scope and (civil and electrical) and the balance of plant (BoP) supplier for construction of the wind farm. These agreements both include a defects liability period and a long-term operation and maintenance component.

Furthermore Pacific Hydro Yaloak South Pty Ltd has entered into a contract with the turbine supplier for the long term operation and maintenance component of the wind farm and the operation and maintenance contract with the BoP contract is currently being drafted with the aim of finalisation prior to BoP practical completion.

Additionally, a connection agreement with Powercor to connect with the Network Service Provider's distribution system has been executed.

Copies of the following key contracts are provided<sup>8</sup>:

- Supply and install contract for the Turbines
- Operations and Maintenance Contracts for the Turbines
- BoP (Civil and Electrical) contract; and
- Powercor connection agreement.

### 1.1.9 Details of any prosecutions or regulatory complaints

#### Inherited issue

SPIC Pacific Hydro Pty Ltd, which is a parent company of Pacific Hydro Pty Ltd and which is part of the Pacific Hydro group acquired the Taralga group<sup>9</sup> (Taralga Wind Farm) on 12 May 2016. As part of this acquisition, the Pacific Hydro group inherited a pre-existing regulatory issue relating to the Taralga Wind Farm, which is located at 454 Bannaby Road, Taralga, NSW 2580, details of which are provided as an attachment<sup>10</sup>

### 1.1.10 No regulatory complaints or prosecutions to report

Pacific Hydro has no prosecutions or other regulatory complaints to report on behalf of its officers or related subsidiaries.

## 1.2 Information on the Application

### 1.2.1 Type of Licence sought

Pacific Hydro Yaloak South Pty Ltd is seeking a full Victorian generation licence for 28.7 MW from the Essential Services Commission Victoria (ESCV) to operate the YSWF in the National Electricity Market (NEM).

### 1.2.2 Date from which Licence is sought

July 2017.

### 1.2.3 Nature and scope of operations for which the licence is sought

Pacific Hydro Yaloak South Wind Farm Pty Ltd seeks to hold a generating licence.

Located an hour west of Melbourne approximately 15 kilometres south of Ballan, the Yaloak South Wind Farm commenced construction in late 2016 and is expected to be completed in June 2018.

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<sup>8</sup> Attachment 8 – Copies of key contracts

<sup>9</sup> Attachment 9 – Taralga group - List of Subsidiaries

<sup>10</sup>

The project comprises fourteen Senvion MM92 wind turbine generators; rated at 2.05MW each, providing a total installed capacity of 28.7MW with a maximum hub height of 80m and maximum tip height of 126.25m.

The project is being built in the southern section of the Parwan Valley, which is predominantly cleared agricultural land used for cropping and livestock grazing. Initial plans for a 70 turbine, 115MW capacity wind farm at the site were amended following concerns from local residents of the Parwan Valley about the potential impact on the wedge-tail eagle population and the visual amenity of the local area. The revised project layout has been designed to reduce potential impacts on native vegetation, wedge tail eagles, Aboriginal cultural heritage, and the landscape.

The reduction in size of the wind farm also enables the export of the power generated into the local electricity network, via a short grid extension to the existing 66kV line located along Hamills Lane. This connection will be screened by existing vegetation and have minimal visual impact on native vegetation and cultural heritage.

The electricity generated at the YSWF will be sold into the National Electricity Market.

#### **1.2.4 Details of current or former licences held in this and/or other jurisdictions**

PHYS has never held or applied for a licence in Victoria or any other jurisdiction.

#### **1.2.5 Licences held by associates of the applicant**

Pacific Hydro has a portfolio of 19 operating assets with an installed capacity of ~713 MW across Chile, Australia and Brazil, all of which hold the relevant licences, depending on the jurisdictions in which they are located. See <http://www.pacifichydro.com.au/english/projects/?language=en>

Pacific Hydro is both a retailer and generator within the National Electricity Market.

Pacific Hydro currently holds existing Generating licence in Victoria through its wholly-owned subsidiaries:

- Pacific Hydro Investments Pty Ltd – Lake Glenmaggie, Lake William Hovell and Eildon Pondage Hydro Plants.
- Energy Pacific (Vic) Pty Ltd – Codrington Wind Farm and Yambuk Wind Farm
- Pacific Hydro Portland Wind Farm Pty Ltd - Portland Wind Farm
- Pacific Hydro Challicum Hills Pty Ltd - Challicum Hills Wind Farm
- Tango Energy Pty Ltd (formally Pacific Hydro Retail) holds an existing retail licence in Victoria.

Pacific Hydro maintains a compliance management system and generator compliance plans in accordance with the Reliability Panel's template for Generator Compliance under the National Electricity Rules (NER) obligations for all of its registered generation plant. Pacific Hydro Pty Ltd (the parent) has owned and operated generation within Victoria since 1994.

#### **1.2.6 Licence Conditions**

PHYS is not seeking any non-standard licence conditions.

### **1.3 Other information on the Applicant**

#### **1.3.1 Experience of key personnel, the applicant and related parties within and external to the electricity industry**

For experience of key personnel, refer 1.1.7. For details of experience of related parties, refer to attachment<sup>11</sup>

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<sup>11</sup> Attachment 10 – Experience of related parties (WBHO & RCR and Senvion)



### **1.3.2 Details of the broad nature of proposed participation in the Victorian electricity industry**

YSWF will consist of 14 Senvion MM92 wind turbine generators (rated 2.05MW each) and will have the capacity to generate a combined total of 28.7MW. The wind farm will be located an hour west of Melbourne, approximately 15 kilometres south of Ballan.

The wind farm will be built on the southern section of the Parwan Valley, which is predominantly cleared agricultural land, used for cropping and livestock grazing.

According to the Development Application (Section 1.1.2), the development footprint of the YSWF will be approximately 10.1 hectares.

Preliminary construction of the wind farm commenced in Q4, 2016 and full construction mobilisation commenced on site in early February 2017.

The electricity generated at the YSWF will be sold into the National Electricity Spot Market.

## 2. Commissions Objectives

Part 2, Sub-section 8(1) of the *Essential Services Commission Act 2001 (ESC Act)* sets the Objective of the Commission as follows:

*In performing its functions and exercising its powers, the objective of the commission is to promote the long term interests of Victorian consumers.*

The Applicant believes that granting of the generation licence to the Yaloak South Wind Farm Pty Ltd (YSWF) is consistent with this Objective. The applicant further believes that YSWF will increase and diversify the supply, quality, reliability and also help in reducing the cost of energy in Victoria.

YSWF is a financially viable generator, underpinned by long-term, fixed operation and maintenance contracts and supported by major industry players who have the technical capacity to operate it. As a wind generator YSWF will have low operating costs low environmental impacts and low health costs for Victorian consumers.

The granting of the generation licence would also be consistent with Objective of the Commission under Sub-Section 8(2) of the ESC Act for the following reasons:

### a. The price

- YSWF will contribute more low marginal cost energy and in-turn assist to reduce the cost of energy in the market.
- YSWF will also increase the renewable energy produced in Victoria which could lead to lowering the cost of Renewable Energy Certificates and in turn reduce the price of energy paid by consumers.

### b. The Quality

- As YSWF is required to comply with the National Electricity Rules under the Generator Performance Standards approved by AEMO, the applicant believes that the quality of supply will be maintained.

### c. Reliability of essential services

- Due to the diversification of sources of supply by granting of the generation licence, YSWF will assist improve the overall reliability of supply of electricity.

The Applicant is confident that granting of the generation licence to YSWF is consistent with having regard to the matters which the Commission must have regard to under Sub-Section 8A(1) of the ESC Act for the following reasons:

### a. efficiency in the industry and incentives for long term investment

YSWF is an electricity industry investment which will facilitate long term efficient electricity generation.

### b. the financial viability of the industry

YSWF is a financially viable generator, underpinned by the long-term fixed contracts supported by major industry players such as the contractors mentioned in Section 1.1.8 of this application.

### c. the degree of, and scope for, competition within the industry, including countervailing market power and information asymmetries

YSWF will result in the creation of a new electricity generation asset in Victoria which is consistent with the Objective in regards to this matter.

### d. the relevant health, safety, environmental and social legislation applying to the industry

The development of the YSWF will be subject to all relevant health, safety, environmental and social legislation applying to the Victorian electricity industry and therefore the granting of the licence will be consistent with having regards to the Objective of the Commission covered in Sub-Section 8A(d).

e. the benefits and costs of regulation (including externalities and the gains from competition and efficiency) for

- (1) consumers and users of products or services (including low income and vulnerable consumers)

The granting of the licence to YSWF will be consistent with the above statement, as the increase in competition will result in price reductions and will minimise the cost of regulation which will in turn allow consumers and users of electricity (including those with low income and vulnerable customers) access to receive increased benefits of a supply of electricity generated by renewable sources. The benefits include reduced cost, higher reliability and quality of electricity supply, reduced externalities, including environmental and health costs as outlined above.

- (2) regulated entities;

Granting of the licence will minimise the costs of regulation to the regulated entity (YSWF), and allow other regulated entities – in particular electricity retailers – to access the benefits of increased renewable generation capacity. Therefore the granting of the generation licence to YSWF is consistent with having regard to this section of the Objective of the Commission.

f. consistency in regulation between States and on a national basis

The granting of the licence is consistent with the Objective having regard to this matter because YSWF will generate into the National Grid with the associated regulations and overseen by the Australian Energy Market Operator.

g. Any matters specified in the empowering instrument

The granting of the generation licence for YSWF under the Section 10 of the Electricity Industry Act 2000 (EI Act) is consistent with the Objective of the Commission because investment in generation capacity will increase the supply of electricity available to be purchased by retailers, which will increase their ability to compete more effectively, promoting the development of full retail competition.

### **3. Information on Financial Viability**

PHYS can meet and address the financial viability requirement. Full supporting details are provided to the Commission in the attachments discussed within this section on a commercial-in-confidence basis and can be summarised as below.

#### **3.1 10 Year Business Plan**

YSWF Investment Case<sup>12</sup> and the YSWF Investment Sanction<sup>13</sup> documents, both of which are included as attachments to this application provides sufficient assurance to the Commission of the company's ability to meet all financial requirements and obligations of the generation business.

#### **3.2 Detailed Financial Model projecting expected cash flow for 10 yrs and a "low plausible cash flow scenario"**

Attached to this application is a copy of the financial model that underpins Pacific Hydro's investment in Yaloak South Wind Farm, which highlights the robust economics of the project<sup>14</sup>.

#### **3.3 Documentation to substantiate the accuracy and reasonableness of the business plan and cash flow projections including copies of contracts**

##### **3.3.1 Financial Capacity**

PHYS, a subsidiary of Energy Pacific (Vic) Pty Ltd, is a fully owned subsidiary of Pacific Hydro Pty Ltd ('Pacific Hydro'), a large Australian-based renewable energy group that develops, constructs and operates renewable energy assets in Australia, Chile and Brazil. Pacific Hydro is currently operating 19 hydro assets and wind farms with a total installed capacity of 900MW (gross) / 713 MW (proportional share).

In Jan 2016, Pacific Hydro was acquired by State Power Investment Corporation, newly established through the merger of China Power Investment Corporation and State Nuclear Power Technology Corporation. SPIC, a Fortune Global 500 company, is a large state-owned enterprise under the administration of the Central Government with total assets of USD 113 billion.

In October 2016, the Board of Directors of Pacific Hydro approved the Yaloak South Wind Farm Project.

Funding for YSWF is planned to be achieved through a combination of Pacific Hydro's internal cash and proceeds from the corporate financing entered into by Pacific Hydro and a syndicated lenders for circa AUD\$670 million in February 2017 ('Corporate Financing'). Utilisation of the Corporate Financing is subject to achieving financial close and is anticipated to occur in May 2017.

As at 28 February 2017, Pacific Hydro's total cash balance was AU\$ 95.6 mil, of which US\$ 50.1 mil is unrestricted free cash. The unrestricted free cash of Pacific Hydro and the Corporate Financing provide sufficient assurance to the Commission of the PHYS's ability to meet all financial requirements and obligation of the generation business.

The most recent financial statement (annual report) of Pacific Hydro is attached with this application<sup>15</sup>

For copies of construction and connection contracts, please refer section 1.1.8

#### **3.4 Current Balance Sheet**

The Balance Sheet including a statement of assets and liabilities is provided<sup>16</sup>.

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<sup>12</sup> Attachment 11 – YSWF Investment Case

<sup>13</sup> Attachment 12 – YSWF Investment Sanction

<sup>14</sup> Attachment 13 - YSWF Financial Model

<sup>15</sup> Attachment 14 – Financial Statement (Annual Report)

<sup>16</sup> Attachment 15 – Balance Sheet

### **3.4.1 Portfolio Management**

Pacific Hydro's Portfolio Management function is responsible for managing the volume and price risks.

Pacific Hydro adheres to a robust governance structure which involves amongst other things a strict segregation of duties between the generation business, retail business, Portfolio Management (Front Office), Risk Management (Middle Office), and Finance, Compliance and Legal operations (Back Office).

These arrangements are governed by Pacific Hydro's Energy Markets Trading Policy, which is overseen by the senior management.

## **4. Information on Technical Capacity**

### **4.1 Project Organisational Chart and Details of Experience and Skills of Key Personnel**

The YSWF project organisational structure is provided as an attachment to this application<sup>17</sup>.

Details of industry experience and knowledge of the key personnel is also provided as an attachment.<sup>18</sup>

### **4.2 Summary of Relevant Contracted Entity's Experience in Delivering Services**

WBHO Infrastructure and RCR Tomlinson are engaged by PHYS to provide an integrated solution (RCR O'DONNELL GRIFFIN PTY LTD AND WBHO INFRASTRUCTURE PTY LTD - JOINT VENTURE) for the delivery of civil and electrical Balance of Plant (BoP) for the YSWF. WBHO and RCR are two industry leaders of their respective fields of delivering civil construction solutions and electrical infrastructure solutions. The partnership between the two companies is expected to bring full BoP works capability and a shared industry best-for-project ethos. Capability, skills and experience of key personnel involved with WBHO and RCR are provided in attachment 11.

PHYS has entered into a contract with Senvion for the supply and installation of turbines for the YSWF. Senvion possesses a great deal of wind farm project experience in Victoria, particularly involving the MM-series wind turbines. A summary of Senvion's Victorian projects, experience and skills of Senvion personnel involved with delivering the YSWF are provided in attachment 11.

### **4.3 Contracts with external service providers, including customer and supply contracts and outsourcing arrangements**

Please refer section 1.1.8

### **4.4 Internal controls, policies and procedures**

Pacific Hydro functions on independent rules and procedures to ensure compliance with the organisational needs functions and targets. These policies are listed below:

- Code of Conduct<sup>19</sup>
- Delegation of Authority<sup>20</sup>
- Training and Development Policy<sup>21</sup>
- Confidentiality Policy<sup>22</sup>
- Disciplinary Policy<sup>23</sup>
- Information and Records Management Policy<sup>24</sup>
- Privacy Policy<sup>25</sup>
- Compliance Policy<sup>26</sup>

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<sup>17</sup> Attachment 16 – YSWF Organisational Chart

<sup>18</sup> Attachment 17 – Experience and Knowledge of Key Project Personnel

<sup>19</sup> Attachment 18 – Code of Conduct Policy

<sup>20</sup> Attachment 19 – Delegation of Authority Policy

<sup>21</sup> Attachment 20 – Training and Development Policy

<sup>22</sup> Attachment 21 – Confidentiality Policy

<sup>23</sup> Attachment 22 – Disciplinary Policy

<sup>24</sup> Attachment 23 – Information and Records Management Policy

<sup>25</sup> Attachment 24 – Privacy Policy

<sup>26</sup> Attachment 25 – Compliance Policy

## 4.5 Details of Land Ownership and Leasing Arrangements

The wind farm will be constructed on grazing land leased from one landholder. The total footprint of the project is approximately 10.1 hectares.

- The landowner is Ballan Pastoral Co Pty Limited – ABN 85 004 964 621
- Pacific Hydro has an agreement to lease with the landowner for a 25 year lease.

The land title search is provided as an attachment to the application.<sup>27</sup>

## 4.6 Risk, Governance, Compliance Management and Strategies

### 4.6.1 Risk Management and Compliance Overview

Pacific Hydro managed its risk in accordance with its Enterprise Wide Risk Management Framework (EWRM). The EWRM consist for five pillars as follows;

- Strategy
- Risk Management Process
- Governance
- Compliance
- Assurance

Pacific Hydro risk management framework overview is provided as an attachment to this application.<sup>28</sup>

### 4.6.2 Risk Management Process

The risk management process pillar provides guideline for risk assessment (risk identification, risk analysis, risk evaluation), risk treatment, monitoring and review. The pillar is based on international standard, ISO31000-2009 Risk management and guidelines. The Risk Management Process pillar is provided as an attachment in this application.<sup>29</sup>

Pacific Hydro uses the framework for all major investment decisions, managing projects and operations.

Under this pillar risk registers were developed to assess all risk associated with the Yaloak South project during its investment sanction. During construction Pacific Hydro will ensure all contractors maintain site level risk registers. YSWF risk register developed at investment sanction is provided as an attachment to this application<sup>30</sup>

Post construction Pacific Hydro will conduct a risk workshop to capture all operations related risk for Yaloak South and maintain its risk register.

### 4.6.3 Compliance Management

The compliance pillar provides guidelines for identification of compliance obligations, assigning responsibilities for those obligations, maintaining compliance registers, analysing compliance risks, and implementing controls to remain compliant. It further sets guidelines for monitoring, reporting and remediation of any breach. The compliance pillar is based on international standard, ISO19600"2014 Compliance management systems guidelines. Pacific Hydro's Compliance Pillar is provided for this application as an attachment.<sup>31</sup>

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<sup>27</sup> Attachment 26 – YSWF Land Title Search

<sup>28</sup> Attachment 27 – Pacific Hydro Risk Management Framework - Overview

<sup>29</sup> Attachment 28 – Pacific Hydro Risk Management Process Pillar

<sup>30</sup> Attachment 29 – YSWF Risk Register – Investment Sanction

<sup>31</sup> Attachment 30 – Pacific Hydro Compliance Pillar

Under the pillar a compliance register is maintained for all generation assets across Australia. The compliance obligations in the register are monitored to ensure relevant tasks and controls are in place to comply with those obligations.

Upon receipt of the generation license and the successful registration with AEMO, a compliance plan together with obligations and defined roles and responsibilities will be created for YSWF generation licence. This will be managed in accordance with the compliance framework which conforms to license conditions and National Electricity Rules (NER). These documents will be key input to identifying compliance obligations.

Based on existing wind farm experience in Victoria, PHYS has developed a sample compliance register YSWF and this is available as an attachment to this application<sup>32</sup>.

#### 4.7 Details of Insurance Arrangements

#### 4.8 Insurance Overview

Pacific Hydro procures all required insurance that a prudent windfarm developer, builder and operator would be expected to have in place to protect the value of the assets.

For YSWF, all insurances relating to construction are in place. All operations related insurance will be in placed prior to commencement of commercial operations of the windfarm.

#### 4.9 Current Insurance Program

Construction insurance that is in place includes:

Insurance Type	Insurer	Value and terms
Contract Works and Delayed Start-up (DSU)	REGEN (Lloyds of London)	Contract works - \$70.6m Indemnity period – 12 months Deductible - \$100k  (refer attached certificate)
Marine Transit and Delayed Start-up (DSU)	REGEN (Lloyds of London)	Marine Transit - \$26m Indemnity period – 12 months Deductible - \$100k  (Refer attached certificate)
Third Party Liability	REGEN (Lloyds of London)	Limit - \$50m dedicated to the project  (refer attached certificate)

#### 4.10 Future Insurance Program

When the project construction is complete and it is ready for commercial operations, all relevant insurance associated with operation of the project will be placed. These include

Insurance Type	Insurer	Value and terms
Property damage / Business Interruption (BI)	TBA	Property Damage - \$70.6  BI - \$10m 12 Month revenue (approx. \$10m). Will be determined at time of placement.  Indemnity period – 12 months Deductible - \$200k

<sup>32</sup> Attachment 31 – YSWF Sample Compliance Register



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		Cover will be for full replacement cost on a LEG 2 design
<b>Third Party Liability</b>	Zurich, Chubb, AIG	Limit - \$100m  The SPIC Pacific Energy Pty Ltd and Pacific Hydro group, eventual shareholder of Yaloak entity has a liability program of \$100m for the group. Upon operation the Yaloak windfarm will be consolidated into this group program. (refer attached certificate)

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#### 4.11 Other Insurance

During construction and operations all other insurance for Yaloak South will be in place under Pacific Hydro's corporate programs. These include

- (1) Motor vehicle fleet insurance
- (2) Workers compensation (under Victorian state program)
- (3) Group travel insurance

All insurance construction certificates mentioned above are provided as attachments to this application<sup>33</sup>.

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<sup>33</sup> Attachment 32 – YSWF Construction Insurance Certificates

## 5. Information in support of a generation licence application

### 5.1 Details of experience in and knowledge of the electricity industry

The Applicant is confident that PHYS has the expertise, knowledge and skill base to operate a viable wind farm in the electricity generation business. The owners and operators of YSWF, Pacific Hydro have a strong track record of successful operation of wind farms across Chilean, Australian and Brazilian markets. Pacific Hydro has an established track record of development and operation of renewable energy assets in all of the three markets mentioned above with significant expertise in operating wind farms in Victoria.

Pacific Hydro has been active in the Australian renewable energy market since the early 1990s, delivering 349 MW of projects. The Company has operated in the Chilean market since 2002, establishing itself as one of the most successful renewable energy market participants, having delivered (with its partners) three large-scale run-of-river hydro projects since 2010. It has also developed two wind projects in Brazil following entry into that market in 2006.

Pacific Hydro was acquired by State Power Investment Corporation (SPIC) in January 2016, after participating in a highly competitive international sale process. SPIC is one of the top five power generation groups in China, with US\$113 Billion total assets and a total installed capacity that exceeds 100 GW.

Pacific Hydro's operating assets in Australia currently abate an estimated 900,000 tonnes of greenhouse gas pollution every year. Since entry into Australian renewable energy market in early 1990's Pacific Hydro has developed and operates the following wind and hydro power assets in Victoria, Western Australia and South Australia:

- Victorian hydro plants - the Lake Glenmaggie, Lake William Hovell and Eildon Pondage irrigation dams together have an installed capacity of 10.3MW
- The Ord hydro power station and the East Kimberley 132kV network– completed in 1996, this project provides electricity to the Argyle Diamond Mine and the nearby towns of Kununurra and Wyndham. It remains the largest renewable energy generator in Western Australia, offsetting diesel power, it generates over 212 GWh of emission-free energy each year which are purchased by Horizon Power and the Argyle Diamond Mine.
- Codrington wind farm – with an installed capacity of 18.2MW, Codrington wind farm was Australia's first ever commercial wind farm development officially opened in 2001.
- Yambuk wind farm - the 30MW project was the first stage of Pacific Hydro's four-stage Portland Wind Energy Project (PWEF) in southwest Victoria.
- Chalicum Hills wind farm – the 52.5MW wind farm located in western Victoria was Australia's largest wind farm when completed in August 2003.
- The Drop hydro plant – The 2.5MW project was Australia's first hydroelectric scheme built on an irrigation channel. The project is now generating clean, renewable energy without affecting the water flow to the 2,600 farms the canal supplies.
- Cape Bridgewater wind farm – the 58MW capacity project is the second stage of Pacific Hydro's four-stage Portland Wind Energy Project (PWEF) in southwest Victoria completed in 2008.
- Cape Nelson South wind farm – the 44MW capacity project is the third stage of Pacific Hydro's four-stage Portland Wind Energy Project (PWEF) in southwest Victoria completed in 2009.
- Clements Gap Wind Farm – completed in 2010 with capacity of 56.7MW, Clements Gap wind farm was Pacific Hydro's first project in South Australia.
- Cape Nelson North and Cape Sir William Grant wind farms - The last stage of the Portland Wind Energy Project, PWEF IV, covering two sites – Cape Nelson North and Cape Sir William Grant - was completed in 2015 and has a combined capacity of 47.2MW.

## **5.2 A summary of the skills and experience of the directors and senior managers and their relevance to meeting the requirements of the licence**

Pacific Hydro's Executive Manager, Darren Sexton, has the skills and experience to ensure the operational requirements of the licence are adhered to. Pacific Hydro's Group Chief Financial Officer, Robert Spurr, possesses the skills and experience necessary to ensure that the generation licence financial requirements are met. Please refer attachment 7 – Skills and Experience of Key Personnel and the Applicant for more details. Evidence that the applicant has the capacity to comply with the licence conditions, codes and guidelines relevant to its application.

## **5.3 Evidence that the applicant has the capacity to comply with the licence conditions, codes and guidelines relevant to its application**

The Applicant is confident that PHYS has all necessary expertise to comply with all relevant Generation License conditions, codes and guidelines as detailed throughout this application supported by included attachments such as Skills and Experience of Key Personnel, Internal Controls, Policies and Procedures as well as the Risk, Governance and Compliance Management Strategies.

## **5.4 Evidence of interactions and registration with AEMO**

Energy generation from Yaloak South will be sold into the spot market. To manage the price risk in the market, Pacific Hydro is likely to use derivatives to hedge the risk. Pacific Hydro has the required Australian Financial Services License (AFSL) to engage in these derivatives. A copy of the Financial Services Licence is provided as an attachment<sup>34</sup>. These activities will be subject to compliance requirements to market operator, Australian Energy Market Operator (AEMO) and Australian Securities and Investment Commission (ASIC).

Pacific Hydro applies the same compliance management framework to manage compliance requirements for AEMO and AFSL.

All staff in the finance and wholesale market departments who are involved in market activities undertakes training with the Australian Financial Services Licence.

Pacific Hydro has completed the negotiation and acceptance of the Generator Performance Standards with AEMO. These standards form the technical schedule and main compliance obligations for the plant within the connection agreement.

Pacific Hydro will progress the registration of Yaloak South Wind Farm with AEMO when all of the necessary data is finalised for the application. The registration of the wind farm must be completed prior to energisation of the asset. The revenue metering has to be certified and registered before energisation can take place but in order for certification to be granted all the test certificates for the actual plant must be available and provided to AEMO. This is why registration has not yet applied for, however the documentation is under preparation.

## **5.5 Confirmation that all Planning and Environmental Approval have been completed**

PHYS has received planning approval and all environmental approvals for the project are also in place.

The Yaloak South Wind Farm was granted Planning Approval by Moorabool Shire Council in November 2010, amended 29 May 2014. A Development Application to address relevant conditions of the permit was submitted in June 2014. This was approved and endorsed in September 2015 by the Department of Environment, Land, Water and Planning (DELWP).

Pacific Hydro manages its environmental compliance in accordance with Pacific Hydro's Health, Safety and Environment Policy and the Project Environmental Management Plan (PEMP), which was prepared and approved for the Yaloak South Wind Farm as part of the Development

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<sup>34</sup> Attachment 33 – Australian Financial Services Licence

The following documents are provided as attachments to this document in support of the application:

- A letter from DELWP stating that all required plans have been submitted and endorsed<sup>35</sup>
- Pacific Hydro’s Health, Safety and Environment Policy<sup>36</sup>
- YSWF Project Environmental Management Plan (PEMP)<sup>37</sup>
- YSWF Planning Permit<sup>38</sup>

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<sup>35</sup> Attachment 34 - Letter of DWELP Endorsements 16-09-15

<sup>36</sup> Attachment 35 - Pacific Hydro’s Health, Safety and Environment Policy

<sup>37</sup> Attachment 36 - YSWF Project Environmental Management Plan (PEMP)

<sup>38</sup> Attachment 37 – YSWF Planning Permit

## 6. List of Attachments

1. Executive Summary - Darren Sexton
2. PHYS Constitution
3. PHYS Certificate of Registration
4. Pacific Hydro Corporate Structure
5. Executive Summaries of Board of Directors
6. Pacific Hydro Australia Organisational Structure
7. Experience of Key Personnel
8. Copies of Key Contracts
  - Balance of Plant (BoP)
  - Connection
  - Generator Deed
  - O&M Contract for Supply and Install of Turbines
  - Supply and Install Contract for the Turbines
9. Details of Regulatory Complaints
10. Experience of related parties
  - Senvion
  - WBHO and RCR (WRJV)
11. YSWF Investment Case
12. YSWF Investment Sanction
13. YSWF Financial Model - Investment Case
14. PH Annual Report 31-12-2015
15. PHPL Balance Sheet February 2016
16. YSWF Org chart
17. Experience and Skills of Key Project Personnel
18. Code of Conduct Policy
19. Delegation of Authority Policy
20. Training and Development Policy
21. Confidentiality Policy
22. Disciplinary Policy
23. Information and Records Management Policy
24. Privacy Policy
25. Compliance Policy
26. YSWF Land Title Search V8393 F788
27. Pacific Hydro Risk Management Framework – Overview
28. Pacific Hydro Risk Management Process Pillar
29. YSWF Risk Register – Investment Sanction
30. Pacific Hydro Compliance Pillar

31. YSWF Sample Compliance Register
32. YSWF Construction Insurance Certificates
33. Australian Financial Services Licence
34. Letter of DWELP Endorsements 16-09-15
35. Pacific Hydro Health Safety Environment Policy
36. YSWF Project Environmental Management Plan (PEMP)
37. YSWF Planning Permit