



**Fortescue**  
The New Force in Iron Ore

## Transmission Licence Exemption Application

### **Electricity Transmission Licence - Exemption Application Electricity Industry Act 2004**

---

Pilbara Energy Connection

19 November 2019

## TABLE OF CONTENTS

---

<b>1.</b>	<b>INTRODUCTION .....</b>	<b>3</b>
<b>2.</b>	<b>PILBARA ENERGY CONNECTION .....</b>	<b>3</b>
<b>2.1</b>	<b>Overview of Transmission Line .....</b>	<b>3</b>
<b>2.2</b>	<b>Location .....</b>	<b>4</b>
<b>3.</b>	<b>REQUEST FOR EXEMPTION .....</b>	<b>4</b>
<b>4.</b>	<b>PUBLIC INTEREST ASSESSMENT.....</b>	<b>5</b>
<b>4.1</b>	<b>Environmental Considerations.....</b>	<b>5</b>
4.1.1	Environmental Approvals Framework.....	5
4.1.2	Environmental Justification and Consideration of Alternatives.....	6
<b>4.2</b>	<b>Social Welfare and Equity Considerations .....</b>	<b>6</b>
<b>4.3</b>	<b>Economic, Regional Development, Employment and Investment Factors....</b>	<b>6</b>
<b>4.4</b>	<b>Interest of Customers.....</b>	<b>7</b>
<b>4.5</b>	<b>Interests of Other Licensees or Applicants .....</b>	<b>7</b>
<b>4.6</b>	<b>Competition in Electricity Industry Market .....</b>	<b>7</b>
<b>4.7</b>	<b>Policy Objectives of Government.....</b>	<b>7</b>
<b>4.8</b>	<b>Other Matters .....</b>	<b>8</b>
	<b>SCHEDULE 1 – TENEMENTS.....</b>	<b>9</b>

## 1. INTRODUCTION

---

**Fortescue's vision is to be the safest, lowest cost, most profitable mining company.**

Since it was founded in 2003, Fortescue Metals Group Ltd (**Fortescue**) has discovered and developed major iron ore deposits and constructed some of the most significant mines in the world. Now consistently shipping around 170 million tonnes of iron ore per annum, Fortescue has grown to be one of the largest, global iron ore producers and is focussed on its vision of being the safest, lowest cost, most profitable mining company.

Fortescue owns and operates integrated infrastructure and supply chain spanning two mine hubs, with a third under development in the Pilbara, the fastest, heavy haul railway in the world, the five berth Herb Elliott Port in Port Hedland and the Judith Street Harbour towage infrastructure. Innovation in exploration, ore processing and plant design is a key component of Fortescue's strategy to efficiently and effectively deliver products from mine to market.

Fortescue's longstanding relationships with customers in China have grown from the first commercial shipment of iron ore in 2008, to now being a core supplier of seaborne iron ore to China, and expanding into markets including Japan, South Korea and India.

Fortescue is committed to investing in the long-term sustainability of its business. Fortescue is developing the Eliwana Mine and Rail Project and the Iron Bridge Magnetite Project. The Iron Bridge Project will deliver a premium product with iron content of 67%, further enhancing the range of products available to Fortescue's customers through its flexible integrated operations and marketing strategy. Together, the Iron Bridge and Eliwana projects will increase the average iron ore content of Fortescue's ores and provide the ability to deliver the majority of products at greater than 60% Fe.

## 2. PILBARA ENERGY CONNECTION

---

### 2.1 Overview of Transmission Line

---

Fortescue presently owns and operates the Solomon, Cloudbreak and Christmas Creek power stations, each supporting their respective mining operations as islanded electrical networks. With the significant increased electrical demand required by the Iron Bridge Magnetite Project, Fortescue is now undertaking to construct, commission and own the Pilbara Energy Connection, a fully integrated 220kv electrical transmission network (refer Figure 1).

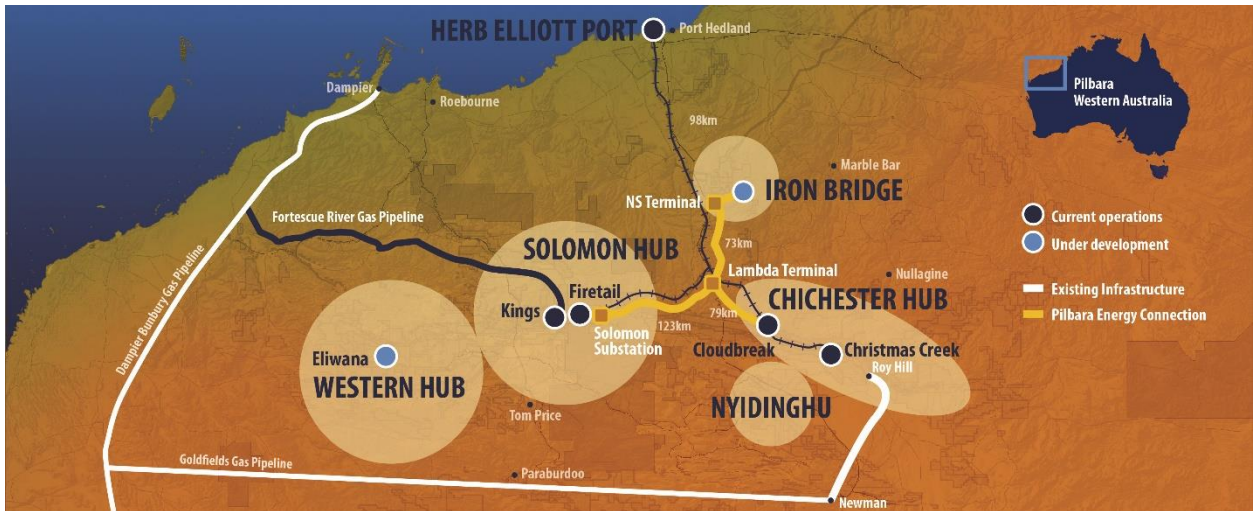


Figure 1

The Pilbara Energy Connection will be owned, controlled and operated by Pilbara Energy Company Pty Ltd (ACN 624 732 878) (**PEC**), a 100% owned subsidiary of Fortescue Metals Group Ltd. The Pilbara Energy Connection will connect the Fortescue owned and operated Solomon Mining Hub and Chichester Mining Hub, through to the Iron Bridge Magnetite Project.

## 2.2 Location

The Pilbara Energy Connection is to be constructed on a number of miscellaneous licences that, as at the date of this submission, have either been granted or are pending grant pursuant to the *Mining Act 1978 (WA)* (**Mining Act**). A list of these tenements is included in Schedule 1.

## 3. REQUEST FOR EXEMPTION

Electricity Industry Act section 8 provides that the Governor may exempt the requirement for a transmission licence to construct and operate an electrical transmission system.

This submission addresses the public interest criteria defined in section 8(5) of the Electricity Industry Act to be considered when determining if the exemption would not be contrary to public interest.

## 4. PUBLIC INTEREST ASSESSMENT

---

### 4.1 Environmental Considerations

---

#### 4.1.1 Environmental Approvals Framework

---

The Pilbara Energy Connection infrastructure has been referred under both Commonwealth and State primary environmental legislation as follows:

- (a) The Pilbara Energy Connection was referred to the Commonwealth Department of Environment and Energy on 30 November 2018 (EPBC Reference 2018/8349). The Department of Environment and Energy subsequently confirmed on 2 April 2019 that the Pilbara Energy Connection is not a Controlled Action under the *Environment Protection and Biodiversity Conservation Act 1999*, and no further approvals are required under this Act.
- (b) The Pilbara Energy Connection was referred to the Environmental Protection Authority under section 38 of the *Environmental Protection Act 1986 (EP Act)* on 26 November 2018. The EPA subsequently determined that the Pilbara Energy Connection does not require formal assessment, and no further approvals are required under Part IV of the EP Act.

A range of secondary environmental approvals are required for activities to be conducted in respect of the Pilbara Energy Connection as follows.

#### ***EP Act – Part V***

Land clearing will be facilitated via a series of native vegetation clearing permits (**NVCP**), to be obtained under Part V of the EP Act. The first of three planned NVCPs was submitted to the Department of Mines, Industry Regulation and Safety on 17 October 2019, and is currently under assessment (CPS 8716/1). Subsequent applications will be made following grant of tenure.

No prescribed premises categories, as listed in Schedule 1 of the EP Act, apply to the Project. As such, there is no requirement for works approvals or licences to be sought under Part V of the EP Act.

#### ***Mining Act 1978 (WA)***

As the Pilbara Energy Connection is located on tenure prescribed under the *Mining Act 1978*, activities therein must be approved under a Mining Proposal. A Strategic Mining Proposal was submitted to the Department of Mines, Industry Regulation and Safety on 30 October 2019 and is currently under assessment (Reg ID – 83434). The Strategic Mining Proposal will allow for staged approval of activities following grant of tenure.

## 4.1.2 Environmental Justification and Consideration of Alternatives

---

Construction of the Pilbara Energy Connection will result in negligible emissions. However, the Pilbara Energy Connection is the key catalyst for integration of large scale renewable generation to supply the Iron Bridge Magnetite Project.

The alternative source of electricity for the Iron Bridge Magnetite Project would involve installation of a new natural gas transmission line, connecting the Iron Bridge Magnetite Project to the existing Pilbara Energy Pipeline and the construction of a standalone natural gas-fired power station. Due to the single source power supply, this power station would need to be sized significantly in excess of the forecast peak power demand to allow for maintenance and power supply spinning reserve requirements.

This option would require additional clearing of native vegetation at the Iron Bridge site, and would limit the opportunity for the incorporation of large-scale renewable generation into the energy mix, as the power station would be used as an isolated supply for the Iron Bridge Magnetite Project. Connecting the Iron Bridge Magnetite Project facility to the Pilbara Energy Connection provides the platform for integration of large scale renewable generation that would otherwise not be available.

## 4.2 Social Welfare and Equity Considerations

---

The Pilbara Energy Connection will facilitate the delivery of energy on far more reliable, cost-efficient and far less carbon intense basis, than the identified alternative scenario of islanded powered generation.

## 4.3 Economic, Regional Development, Employment and Investment Factors

---

The Pilbara Energy Connection Network will provide crucial power supplies to the proposed magnetite operations at Iron Bridge.

In April 2019, the development of the US\$2.6 billion Iron Bridge Magnetite Project was approved. With first magnetite exports scheduled for mid-2022, the Iron Bridge Magnetite Project will deliver (22 million tonne per annum) of high grade, 67% Fe, magnetite concentrate product, once full operational capacity is achieved. Reliable, cleaner and cheaper energy is required to facilitate the development and sustainable operation of the Iron Bridge Project which is expected to create up to 3,000 jobs during construction phase, and 900 full time positions during ongoing operations.

The Pilbara Energy Connection will provide a unique power supply infrastructure solution, spanning the expanse of the central Pilbara region, with capacity to support future growth of Fortescue operations.

#### **4.4 Interest of Customers**

---

The construction of this infrastructure is of utmost benefit to the Iron Bridge Joint Venture as it facilitates the supply of reliable, low cost electricity, supporting long term sustainable operations.

#### **4.5 Interests of Other Licensees or Applicants**

---

The central Pilbara region is not currently served by any interconnecting high voltage power transmission network. Other mining operations in the central Pilbara area (eg BHP Billiton and Rio Tinto) generally generate electricity and self-supply for on-site consumption or consumption within joint ventures. These companies hold exemptions under the Electricity Industry Act or via various State Agreements.

Fortescue does not view this application as being counter to the interests of any other licensee or applicant for a licence.

#### **4.6 Competition in Electricity Industry Market**

---

The central Pilbara region is not presently serviced by a high voltage transmission system spanning several hundred kilometres and although there are discrete islanded loads located within this region, no pre-existing or proposed high voltage networks have been proven economically viable. For this reason no established or potential electricity industry market exists within this region however the implementation of the Pilbara Energy Connection may provide the catalyst required for a future electricity industry market within the central Pilbara.

Fortescue does not view this application as being counter to competition in the electricity industry markets.

#### **4.7 Policy Objectives of Government**

---

Fortescue notes the government's proposed new policy objectives in relation to the supply of electricity in the Pilbara region being;

*'To promote efficient investment in, and efficient operation and use of, services for the long-term interests of consumers of electricity in the Pilbara region relating to –*

- (a) Price, quality, safety, reliability and security of supply; and*
- (b) The reliability, safety and security of the interconnected Pilbara system.'*

Fortescue fully supports the promotion of efficient investment, operation and use and safety and reliability excellence and providing a platform that allows a growing role for renewable energy to reduce the environmental impacts of electricity supply to its operations.

Noting the limited alternatives for power transmission to supply the Iron Bridge Magnetite Project, and being part of a self-contained electricity transmission system in which electricity is transmitted solely by a Fortescue owned entity, PEC, Fortescue does not view this application as being contrary to the public interest with respect of the policy objectives of government.

## **4.8 Other Matters**

---

Fortescue is already proficient in developing and operating large infrastructure projects and has by way of example a 132kV power transmission network, spanning several kilometres, at its Solomon mining operations. Fortescue also has other power transmission networks operating at 66kV, 33kV, 22kV and 11kV, all of significant length, spread across various operational mine sites and under Fortescue's direct control, management and statutory responsibility.

Fortescue has a proven record in delivering projects to a world class standard whilst fully complying with its corporate and social responsibilities, setting the benchmark for the delivery and ongoing operation of the Pilbara Energy Connection.



## SCHEDULE 1 – TENEMENTS

No.	Tenement	Holder	Tenement Status
1	L45/456	Pilbara Energy Company Pty Ltd	Live - 10/05/19
2	L45/457	Pilbara Energy Company Pty Ltd	Live - 25/09/19
3	L45/458	Pilbara Energy Company Pty Ltd	Live - 17/06/19
4	L45/459	Pilbara Energy Company Pty Ltd	Live - 13/09/19
5	L45/460	Pilbara Energy Company Pty Ltd	Live - 10/05/19
6	L45/461	Pilbara Energy Company Pty Ltd	Live – 07/11/19
7	L45/462	Pilbara Energy Company Pty Ltd	Live - 10/05/19
8	L45/463	Pilbara Energy Company Pty Ltd	Live - 25/09/19
9	L45/464	Pilbara Energy Company Pty Ltd	Live - 25/09/19
10	L45/465	Pilbara Energy Company Pty Ltd	Live – 07/11/19
11	L45/467	FMG Magnetite Pty Ltd	Live – 07/11/19
12	L45/468	Pilbara Energy Company Pty Ltd	Live - 10/05/19
13	L45/469	Pilbara Energy Company Pty Ltd	Live - 23/08/19
14	L45/470	Pilbara Energy Company Pty Ltd	Pending
15	L45/471	Pilbara Energy Company Pty Ltd	Live - 10/09/19
16	L45/472	Pilbara Energy Company Pty Ltd	Live - 10/09/19
17	L45/474	Pilbara Energy Company Pty Ltd	Live - 17/06/19
18	L45/475	Pilbara Energy Company Pty Ltd	Live - 10/05/19
19	L47/847	Pilbara Energy Company Pty Ltd	Pending
20	L47/848	Pilbara Energy Company Pty Ltd	Live - 17/05/19
21	L47/859	Pilbara Energy Company Pty Ltd	Live - 06/02/19
22	L47/914	Pilbara Energy Company Pty Ltd	Live - 15/11/19
23	L47/915	Pilbara Energy Company Pty Ltd	Pending