



Power Ledger

Application for Solar PPA Retail Licence Exemption in Western Australia

20 December 2018



Power Ledger Corporate Information

Applicant Details	
Legal name	Power Ledger Pty Ltd
Trading name (if different to legal name)	n/a
Registered office (if a corporation)	L6 218 St Georges Terrace, Perth, WA 6000
Principal place of business (if different to registered office)	n/a
Contact Details	
Name of primary contact	Sarah Graham, Policy Analyst
Telephone number	9322 6659
Postal Address	L6 218 St Georges Terrace, Perth, WA 6000
Email	sg@powerledger.io
Company Structure	
ABN or ACN	ABN 39 612 531 218
Legal structure (corporation, partnership, or sole proprietor)	Australian Proprietary Limited Company
Company directors	David Martin Jemma Green John Bullich
Description of primary business activities	<i>See Section 1</i>
Associated entities	Power Ledger Operations Pty Ltd
Business requirements	
Brief description of the business model, including forecasted type (commercial and residential) and number of customers	<i>See Section 2</i>
Applicant Details	
Details of experience in selling energy products and services	<i>See Section 3</i>



Appendix B: Exemption application checklist

In order to assess a solar PPA retail licence exemption application, specific corporate, financial and technical information is required. Please include a completed copy of this document along with your application.

Information required	Provided	Reference
A version of the application suitable for publication on the Department of Treasury website	✓	Page 1
An overview of the applicant's corporate structure.	✓	Page 4
Identity information, including legal and trading name (if relevant) and ABN or ACN.	✓	Page 1
Registered postal address and contact details of the applicant.	✓	Page 1
Name and contact details of the applicant's main contact person.	✓	Page 1
An overview of the applicant company's profile and a description of the company's main business activities.	✓	Page 5
Description of the company type (public, private, joint venture, other body corporate, partnership, sole trader or other entity).	✓	Page 1
A list of associated or controlled entities, including the degree of control exercised.	✓	n/a
A description of the applicant's business model, including forecasts for the number of customers expected to be serviced under a solar PPA over the next three (3) years.	✓	Page 6
A written declaration from the applicant attesting to the applicant's financial solvency.	✓	Page 7

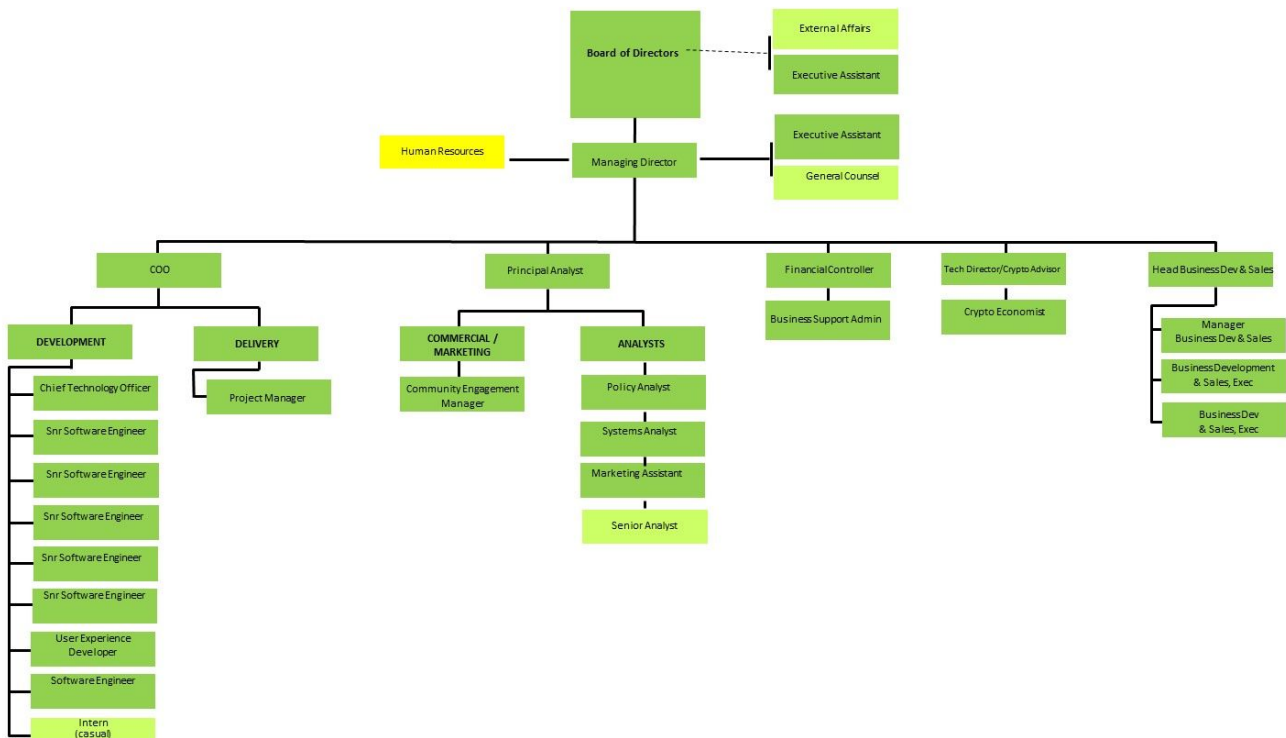


A copy of the applicant's proposed solar PPA Disclosure Statement.	✓	Pages 11-16
A description of the applicant's previous experience selling energy or solar PPA products.	✓	Page 8
Details of whether the applicant holds, or has previously held or been subject to, an energy selling retail licence, licence exemption or retailer authorisation in any Australian state or territory, including Western Australia.	✓	Page 10
Details about any breaches of those licences, exemptions or authorisations, where a penalty or enforcement order was applied.	✓	Page 10
Details of any current or ongoing investigations about an alleged breach of a licence, exemption or authorisation.	✓	Page 10
Statements and evidence to enable the Governor to consider whether granting a licence exemption would be contrary to the public interest.	✓	Page 9

Power Ledger Company Structure

Power Ledger has one wholly owned subsidiary, Power Ledger Operations Pty Ltd, that is currently not involved in the Power Ledger business.

ORGANISATION CHART
June 2018





1 Application Summary and Description of Primary Business Activities

Power Ledger is a Western Australian company, formed in May 2016, that uses blockchain technology to provide an alternate model for the reconciliation and settlement of energy transactions. Our platform allows residential and commercial consumers with embedded renewable energy generating technology to sell excess energy to their neighbours. Our ecosystem of applications also extends to offer carbon credit tracking, virtual power plant and distributed market optimisation mechanisms, all aimed at empowering consumers and encouraging access to more reliable, renewable energy.

Our platform is currently live at multiple sites across Australia and around the globe, including in Thailand, Japan and the United States. Here in Western Australia a number of strata developments throughout White Gum Valley are utilising our peer-to-peer (P2P) trading platform to optimise the value of shared embedded solar generation installed onsite. We also recently launched a Smart Cities and Suburbs project in the City of Fremantle, working alongside our project partners including Western Power, Synergy and Curtin University. The project will involve up to 40 residential customers, both consumers and prosumers, who will be trading energy P2P across the regulated network for the first time in Australia.

As we rapidly move towards a more distributed energy system, it is Power Ledger's aim to optimise the value of distributed energy resources in a way which benefits all types of consumers, while maintaining the relevance and value of the existing network. We have developed all of our systems, including our flagship P2P trading product, with the fundamental objective of giving consumers more control over their energy choices, while providing them with access to cheaper, cleaner, more resilient energy.

It is with these same objectives in mind that Power Ledger is seeking a retail licence exemption to be able to sell energy to prospective clients under solar Power Purchase Agreements (PPAs).



2 Brief Description of Business Model

As part of the extension of our business model, Power Ledger is aiming to manage and operate a portfolio of commercial sized renewable assets. This is part of our plan to promote large scale renewable projects and the growth and uptake of renewable generation technologies in Western Australia and around the world. Obtaining a retail licence exemption will enable Power Ledger to extend our suite of offerings to include selling solar energy to customers under a PPA, and help begin our portfolio here in Western Australia.

An exemption will allow Power Ledger to complete the purchase and assume operation of a 100 kW solar array, currently under the portfolio of Perdaman Advanced Energy (PAE). We will continue to provide electricity to one commercial customer under similar terms to the solar PPA currently in place. This customer provides energy intensive commercial laundry services to major hotels, and has a large demand profile throughout the day. Due to the size of the load, in the future we will be looking to double the capacity of the solar system to increase the use of renewable energy at the site, and maximise savings for the customer.

The PPA has been operating since February 2018 and has delivered savings to the customer since this time. The terms of the PPA see the current provider, PAE, and the future provider, Power Ledger, supply solar energy to the customer at a rate cheaper than grid supplied energy. This means that as long as the system is producing solar energy and the customer has load, the customer benefits, increasing the competitiveness of Western Australian businesses. Power Ledger will contract the installation of additional capacity to PAE who have demonstrable experience delivering solar systems and have extensive experience in the industry.

In the future, we will aim to both expand on these operations, and add new ones in order to sell electricity under solar PPAs to a number of different communities and businesses.



3 Financial Information

DECLARATION OF FINANCIAL SOLVENCY

Government of Western Australia
Department of Treasury
Public Utilities Office

10 December 2018

To whom it may concern,

I, David Martin, Managing Director of Power Ledger, confirm that, as at the date of this application:

- an administrator, receiver or insolvency official has not been appointed to control any part of the business or its property;
- no application or resolution has been passed or steps taken to wind up the applicant's company; and
- the applicant is not aware of any other factors that may impede its ability to service solar PPA customers under the proposed business model.

Yours faithfully,

David Martin
Managing Director & Co-founder
Power Ledger



4 Relevant Experience selling energy or solar PPA products

Power Ledger has not yet had direct experience selling solar energy to customers under a PPA. However, as part of our business model we work closely with renewable energy developers, strata managers and energy retailers to offer our platform to their customers.

Power Ledger currently provides energy measurement and reporting services to these entities for the consumption and production of solar energy. Using consumption data from smart meters we are able to facilitate the reconciliation and settlement of energy transactions, in both P2P settings and when solar is sold under a PPA. This functionality supports the above mentioned entities in providing accurate billing services for both residential and commercial customers in a range of circumstances. The Power Ledger platform also provides customers with an easily accessible dashboard view of the solar energy they produce and consume, giving them more visibility and control over their energy choices.

In Thailand for example we have partnered with renewable energy developer BCPG, who currently has ~800 kW of solar capacity installed across the rooftops of a number of commercial customers. They sell the energy produced to each of these commercial customers under the terms of a solar PPA. We are working together to deliver new benefits and value to their customers, allowing them to participate in P2P trading and monetise any excess energy spilling back into the grid. Through our platform BCPG have access to revenue grade billing data, allowing them to differentiate between sources of supply. This allows them to bill their customers for both renewables consumed in a P2P environment and from the solar on each customers rooftop.

Power Ledger has an intimate understanding of the processes and requirements of these types of businesses, and will leverage this experience to provide an effective service to the existing commercial customer and any other business or residential customers in the future, if our exemption application is successful.



5 Public Interest Information

The Minister for Energy developed the framework authorising solar power purchase agreement (PPA) providers to apply for retail licence exemptions in an effort to promote the uptake of solar PV systems by Western Australians. The aim of this process is to help the emerging market to develop, and to increase the choices that customers have to access these innovative and renewable sources of electricity at an affordable price. The intent of the minister in developing the framework for the authorisation of solar PPA's will be enhanced through the development of innovative technologies like the PL platform and business model.

Power Ledger is a renewable energy technology company that is seeking a licence exemption to extend the scope of our business activities to provide solar energy to customers under a PPA. Power Ledger's technology and business model were devised to support the transition of mature energy systems into dynamic, consumer-centric and renewable distributed energy markets. At the core of our Power Ledger's business is the drive to make renewable energy more accessible to both residential and commercial customers.

The extension of our business model to providing solar to customers under a PPA is an extension of these fundamental aims. Power Ledger will be providing an offer which allows consumers to access the benefits of solar energy, which in turn can assist them to reduce their electricity usage and the amount they pay for bills. We intend to offer any future customers a deal which promotes cleaner, cheaper energy as well as generate competition in the energy market.

Additionally, granting this exemption will not only ensure that the commercial customer referred to above continues to share in the economic and environmental benefits from the solar installed on their rooftop, it will also give this customer and any future customers the opportunity to participate in innovative new models for the distributed energy future. We hope to give consumers more choice over their energy future, giving them access to more granular consumption data, provide an interactive billing experience and provide access to unique funding models that improve the affordability and accessibility of renewable energy technologies.

6 Other equivalent licenses, exemptions or authorisations to operate

- a) Power Ledger does not hold, and has not previously held or been subject to, an energy selling retail licence, licence exemption or retailer authorisation in any Australian state or territory, including Western Australia.
- b) Power Ledger has not been the subject of any breach of a licence, where a penalty enforcement order was applied or otherwise.
- c) Power Ledger is not the subject of any current or ongoing investigations about an alleged breach of a licence, exemption or authorisation.



7 Product Disclosure Statement

The following constitutes a proposed disclosure statement for a PPA with Power Leder. Future disclosure statements may differ, but will always adhere to the requirements of the Industry and Consumer guidelines.

This Product Disclosure Statement (PDS) outlines information pertaining to Power Ledger Pty Ltd's (PL) solar Power Purchase Agreement. A solar PPA is an agreement between PL and the client where PL agrees to own and operate a solar PV system from which electricity is generated and sold to the client at a predetermined rate. This may or may not include expanding the solar capacity of the system as and when required.

The benefits from a solar PPA with PL include but are not limited to:

- A zero-capital method of increasing NABERS points & reducing the carbon footprint of the built environment;
- No capital or operational cost, meaning no allocation of limited resources, debt or risk for a non-core asset; and
- Flexibility to buy & own at any time at the ATO depreciated value.

This PPA provided by PL is an alternative to purchasing a solar PV system or being 100% dependent on the electricity network for electricity supply. The electricity generated by the solar PV system may not be the sole electricity source at the site and can be combined with the existing grid connection to provide a portion of the client's electricity supply needs. The option exists for PL to provide all of the client's electricity from a solar PV system if desired. The solar PPA is separate but can be concurrent with the customer's electricity grid supply contract with an electricity retailer.

Licence

PL is not licensed, and is not bound by the obligations under the Electricity Industry Act 2004 or its subsidiary legislation relevant to licensees, including the obligation to be a member of the Ombudsman Scheme.



Australian Consumer Law (ACL)

The supply of electricity under a solar PPA with PL is subject to consumer protections under the Australian Consumer Law (ACL). PPA customers have a range of rights that are outlined on the ACL website: <http://consumerlaw.gov.au/>.

Contract Term and Options at end of contract

A Contract Term is negotiable. **Typical** terms range from 5 to 20 years, in some cases with an option for the client to purchase the system after a predetermined time. At the end of the contract terms of this PPA, PL may provide the customer with options to either:

- A. Renew the contract term – renew another set of contract terms with a new PPA and T&Cs in place.
- B. Take ownership of the system -- Purchase the system outright at the agreed rate as outlined in the PPA T&Cs.
- C. Have the solar power system removed – A fee will be applicable to remove the system.

If the customer(s) choose to purchase the solar PV system all electricity generated from the system belongs to them and is free of charge. Furthermore, the customer(s) will become responsible for the maintenance, cleaning, repair and removal of the solar PV system if required.

Applicable Fees and Charges

A monthly generation charge will be invoiced which accounts for all electricity generated by the solar system at the contract rate (plus any relevant fees and taxes) excluding any electricity which is not consumed by the client. This is calculated by multiplying electricity rate by the quantity of solar electricity consumed by the client. A minimum charge may be applied if the client uses less than the minimum take agreed.

Other fees that may apply include:

- A cancellation fee if you wish to cancel the PPA before the final installation.
- An exit fee if you wish to end the PPA before its contractual term.
- A system removal fee to cover removal of the Solar PV system if you request us to do so before the contractual term.



- Late payment fees if you are late in bill payment.
- Payment processing fee if the payment methods results in PL incurring any charges. These charges will be itemized and pass through at cost.
- A reactivation fee for the costs incurred if PL is required to reactivate the solar generation system.
- Paper bill fee for having paper bills sent through the mail.
- Meter check fee to check the accuracy of the system. If the system is found to be accurate the cost of the check will be passed onto you. If found faulty we will cover replacement costs.

In the case where a change in law affects the agreement PL reserve the right to recoup costs where the impacts on PL result in reasonable costs incurred. In the case that we seek to introduce a new fee the customer will typically have a defined notice period to decide on agreement or rejection of the fee and terminate the agreement without penalty.

Billing Frequency and Format

PL will invoice by email within 10 days of the last day of the billing period as listed out in the terms and conditions. Each invoice will specify the consumed electricity or minimum electricity amount and corresponding electricity charge. Payment must be made via EFT or other suitable method.

Meter reading

PL will utilize meters that are approved under the National Measurement Institute (NMI) and are considered suitable for billing requirements in terms of their accuracy (Class 1 or better). We will monitor the energy (kWh) output of the solar system and the amount of solar energy being consumed or exported to the grid. The meter reading will be accessed remotely through a wired or wireless data connection.

Specific details about the Agreement

- Estimated annual output: (xx kWh)
- Estimated first year payments: (\$\$ xx)
- Tariff - Price per unit of solar Energy: (xx c) per kWh
- Solar PV System Capacity: (xx kW)

Under a PPA with PL one unit of electricity equals one kilowatt-hour (kWh). The tariff has been determined by a number of factors, including the length of the contract,



the size of the solar PV system, the location of the site for the PV system and any other factors that are site specific and might impact the cost of installing the system.

At the customer's discretion, the solar PV PPA price will either be floating – tied to a mutually agreed gazetted tariff or fixed with CPI increases (based on the September quarter CPI figure released by the Australian Bureau of Statistics). Also, if any new taxes or charges emerge from a change in law which requires us to incur new costs then these will be passed-through to the customer.

Termination Rights and Obligations of the Customer

The customer may terminate this agreement at any time, subject to notifying PL in writing of such termination not less than 30 Business Days before the termination is to take effect.

If the customer wishes to end the Agreement before its expiry (including if the client wants to move out of the property), the client has a number of options including:

- To purchase the Renewable Electricity Equipment at the applicable Depreciated Equipment Value, on terms and conditions to be negotiated between the Parties;
- Not to purchase the Renewable Electricity Equipment and pay PL an exit fee as negotiated in the contract, in which case PL will disconnect and remove the Renewable Electricity Equipment from your property. The Customer must provide all reasonable assistance to PL in such disconnection and removal.
- Arrange for the new owner of the property to take up the service (provided that they meet our credit requirements and enter into an agreement with PL).
- To move the system to another property and pay PL a fee for completing the re-installation in accordance with CEC guidelines.

The customer will have rights to terminate the Agreement in other circumstances including if PL breaches the agreement as detailed in the T&C's and do not correct it within a specified notice period.

Our Termination Rights

PL may terminate the agreement at any time, subject to notifying the Customer in writing of such termination not less than 30 Business Days before the termination is to take effect.



We may terminate the PPA at any time by giving the customer written notice if:

- The PPA agreement causes PL to incur significant ongoing financial losses.
- The connection point to the grid is disconnected.
- The customer has supplied false or misleading information for the PPA.

In these cases the customer has no claim against PL in respect to any costs or liabilities acquired as a result of or in association with the termination.

Damage to Network

PL will take necessary safety measures and include all required engineering safeguards as stipulated by the network in their approval of the solar power system. The customer typically won't have any direct obligations to the network provider (Western Power) but under the supply agreement with the grid retailer, the customer may be liable for any damages caused by the solar power system.

Dispute resolution procedures

If a customer has any disputes at all you must let us know in written form and include:

- the matter in question;
- if an invoice, the amount disputed; and
- the grounds on which your dispute is raised.

If the issue is still not resolved, senior representatives from both parties should use their best endeavours in good faith to negotiate a resolution of the dispute within a defined notice period after the initial written notification of the dispute from one party to the other.

If the dispute is still not resolved mediation is to be conducted:

(i) by an independent mediator appointed by agreement of the Parties or, if the Parties fail to agree on a mediator within 10 Business Days after the expiry of the period specified in T&C, by the Chair of the Perth Chapter of Resolution Institute, or the Chair's designated representative; and



(ii) in accordance with the Resolution Institute Rules. For the avoidance of doubt, the mediator appointed should have the experience and technical skills dealing with the subject matter of the dispute.

If you are not satisfied with how a dispute has been resolved, you may refer the dispute to the WA Consumer Conciliation Service, within the customer protection division of the Department of Commerce:

<https://www.commerce.wa.gov.au/consumer-protection/making-complaint>.

Further approaches exist to make complaints about a service provider or seek advice on your rights from the Australian Competition and Consumer Commission (ACCC):

<https://www.accc.gov.au/consumers/health-home-car/solar-power#consumer-rights-for-solar-power>.

Maintenance and Repair

PL is responsible for maintenance and repair of the solar power system throughout the contract term as detailed in the PPA T&Cs. You will be required to allow reasonable access to PL and its subcontractors in order to maintain the system and repair faults. You are obligated not to interfere with the solar power system as detailed in the PPA T&Cs.

Warranty

Warranties on the equipment used in the solar PV system are outlined in their corresponding product specification sheets. The output of a solar power system will vary depending on a range of variables, including weather conditions, orientation and the maturity of the system. PL does not guarantee any minimum yield from the solar power system. However, the essence of a Solar PPA insures that it is in both party's interest that the solar power system performs at operational capacity over the length of the contract.