

31 October 2018

## **NEW ENERGY SOLAR (ASX: NEW)** **NEW RELEASES 2018 SUSTAINABILITY REPORT**

New Energy Solar<sup>1</sup> (**NEW**) today released its inaugural 2018 Sustainability Report which details its work in four key areas:

- Energy and climate change.
- Community engagement.
- Health and safety of people and communities.
- Corporate governance and fiduciary duty to stakeholders.

The 2018 Sustainability Report has been prepared with reference to the Global Reporting Initiative, a set of internationally recognised reporting guidelines. The 2018 Sustainability Report is attached and is also available online at NEW's website ([www.newenergysolar.com.au](http://www.newenergysolar.com.au)).

As an award-winning sustainable investment business, NEW plans to publish an updated Sustainability Report on an annual basis.

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<sup>1</sup> New Energy Solar Limited (**Company**), and Walsh & Company Investments Limited as responsible entity of New Energy Solar Fund (**Trust**), together **New Energy Solar**, the **Business** or **NEW**.

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## **About New Energy Solar**

New Energy Solar was established in November 2015 to invest in a diversified portfolio of solar assets across the globe and help investors benefit from the global shift to renewable energy. The Business acquires large scale solar power plants with long term contracted power purchase agreements. In addition to attractive financial returns, this strategy generates significant positive environmental impacts for investors.

Since establishment, New Energy Solar has raised over A\$500 million of equity, acquired a portfolio of world-class solar power plants, and has a deep pipeline of opportunities primarily across the United States and Australia. New Energy Solar's initial public offering was led by Morgan Stanley and its securities trade on the Australian Securities Exchange under the ticker, NEW.

New Energy Solar is a listed stapled entity consisting of New Energy Solar Fund (ARSN 609 154 298) and New Energy Solar Limited (ACN 159 902 708). For more information, visit: [www.newenergysolar.com.au](http://www.newenergysolar.com.au)





**New Energy**  
Solar

**SUSTAINABILITY REPORT**

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2018

# CONTENTS

<b>1</b>	<b>Letter From The CEO</b> .....	2	<b>4</b>	<b>Environmental, Social &amp; Governance Framework</b> .....	9
<b>2</b>	<b>About New Energy Solar</b> .....	3		<b>Environmental</b> .....	10
	<b>Overview Of New Energy Solar</b> .....	3		• Solar Plant Portfolio .....	11
	• Business Operations.....	3		• Plant Description .....	12
	• Investment Objectives.....	3		• First Year Generation (Actual & Forecast).....	12
	• Investment Strategy .....	3		• Equivalent CO <sub>2</sub> Displaced .....	12
	<b>Key Milestones</b> .....	4		• Equivalent Households Powered .....	12
	<b>Key Portfolio Metrics</b> .....	5		• Equivalent Cars Displaced.....	12
<b>3</b>	<b>Industry</b> .....	6		<b>Social</b> .....	17
	<b>Global Shift To Renewables</b> .....	6		• Community Giving .....	17
	<b>Introduction To Solar Photovoltaic</b> .....	7		• Solarbuddy Program .....	18
				• Health And Safety.....	19
				<b>Governance</b> .....	20
				• Corporate Governance Policies .....	20
				• Transparency And Anti-Corruption .....	21
			<b>5</b>	<b>About This Report</b> .....	22

## Disclaimer:

This Sustainability Report is intended to provide general information only and has been prepared by New Energy Solar Limited (Company) and Walsh & Company Investments Limited as responsible entity for New Energy Solar Fund (ARSN 609 154 298) (Responsible Entity) without taking into account any particular person's objectives, financial situation or needs. Investors should, before acting on this information, consider the appropriateness of this information having regard to their personal objectives, financial situation or needs. We recommend investors obtain financial advice specific to their situation before making any financial investment or insurance decision. Together the Company, the Trust and their controlled entities are referred to as 'New Energy Solar', 'NEW' or 'Business'. Neither the Company, the Responsible Entity nor the Investment Manager give any warranty, make any representation as to, or accept responsibility for, its accuracy, reliability, timeliness or completeness now or in the future. While the information provided by New Energy Solar is believed to be accurate, New Energy Solar does not accept responsibility for any inaccuracy or any actions taken upon reliance with the information in this Report.

### Noted entities:

Walsh & Company Investments Limited (ACN 152 367 649, AFSL 410 433) (Responsible Entity), New Energy Solar Fund (ARSN 609 154 298) (Trust), New Energy Solar Limited (ACN 609 396 983), New Energy Solar Manager Pty Limited (ACN 609 166 645, CAR No. 1237667) (Investment Manager), Walsh & Company Asset Management Pty Limited (ACN 159 902 708, AFSL 450 257)

# 1. Letter From The CEO

The Paris Agreement's central aim of capping a global average temperature rise to "well below" 2°C sets the course for a fundamental transformation of the global economy over the next decade. Many countries around the world are in the midst of transitioning towards sustainable energy systems, however, this transition is widespread, and involves significant change in infrastructure built, fuels used, social consumption, and policies employed by various markets around the world.

The Paris Agreement was important in establishing a new mechanism for future global climate governance, and with the assistance of the United Nations Sustainable Development Goals, countries have a roadmap to accelerate the transition to a low carbon economy and to play their part in preventing global warming and building climate resilience.

Renewable energy is an increasingly cost competitive alternative to energy generated from fossil fuels. Although renewable energy targets are in place in over 175 countries, renewable energy competes even without the assistance of government subsidies in an increasing number of jurisdictions. This increased competitiveness and the emissions-free nature of renewable energy is set to transform the energy sector.

Total global solar photovoltaic (PV) generation capacity has grown rapidly in recent years and at 31 December 2017 stood at approximately 400 gigawatts (GW<sub>DC</sub>). 2017 was a milestone year for the solar PV industry, with the world adding more capacity from solar PV than any other type of power generating technology. As governments began to enact various sustainability policies coupled with dramatic price reductions and efficiency breakthroughs in solar technology, the market saw greater solar PV installations than the net capacity additions of fossil fuels and nuclear power combined.

New Energy Solar ("NEW" or the "Business") was established in 2015 in response to these market dynamics and with the intention to capitalise on the market's demand for renewable energy infrastructure, as well as investors' desire to generate positive social impact aimed at reducing the world's reliance on fossil fuels.

It is therefore my pleasure to present to you New Energy Solar's Sustainability Report for 2018. In this report, we have referenced the Global Reporting Initiative (GRI) guidelines to disclose and evaluate the environmental, social and economic impacts of NEW's operations.

2018 has been a year of substantial change for New Energy Solar. Building on the momentum from the Initial Public Offering in November 2017, the Business has delivered on its twin goals of generating financial returns for its investors and positive environmental impact.

The Business has continued to diversify its portfolio of solar plants via its two recent agreements to acquire projects in regional NSW, Australia, and through the deployment of further capital across the United States including North Carolina, Oregon, Nevada and California. NEW's operating portfolio on 31 August 2018 consisted of 10 plants with a total generating capacity of 432 MW<sub>DC</sub>, which is almost the size of Australia's entire large scale generating capacity as at the end of 2017 (450 MW<sub>DC</sub>).

Including plants under construction and plants that the Business has committed to acquiring, NEW's portfolio has increased to 22 plants with a total capacity of 844 MW<sub>DC</sub>, making it the largest listed Australian owner of solar generation.

During the six months ended 30 June 2018, the operating portfolio generated 288.4 gigawatt hours (GWh) of electricity, with this production displacing the equivalent of 183,238 tonnes of CO<sub>2</sub> emissions<sup>1</sup> or removing almost 80,000 US and Australian equivalent cars from the road. The Business also delivered an 'environmental dividend' equivalent to a reduction in CO<sub>2</sub> emissions of 0.6 kilograms of CO<sub>2</sub> per stapled security for the period.

For the remainder of 2018 the Business will continue to focus on construction activities of its committed portfolio, opportunities in its target markets, and optimising the performance of its operating assets.

In addition to delivering positive social impact via the Business' energy generation, NEW strives to embed itself within its communities. Apart from clean energy, there are many other challenges that exist in maintaining communities in a way that will allow for future growth and prosperity, without forfeiting its natural resources. The creation of jobs, education, health and safety, and land preservation are all contributing factors in the Business' investment thesis, and are important items the Business considers during construction and throughout the operational life of the asset.

NEW also strongly advocates for a sustainable supply chain, partnering with responsible suppliers and sourcing materials and services locally when available. The Business adheres to anti-bribery laws and performs risk assessment and due diligence that considers the possibility of fraud and related indicators when assessing contractors, service providers, and other counterparties.

The environmental challenges facing the world today are both demanding and complex. Curbing rising temperatures and reducing carbon emissions are a responsibility that is shared by all of the world's economies. At NEW these objectives are entrenched within its philosophy, and will remain as underlying themes as the Business looks to expand its portfolio and do its part in achieving a more sustainable future.



Yours faithfully,

**JOHN MARTIN**

*Chief Executive Officer*

<sup>1</sup> CO<sub>2</sub> emission reduction is calculated using the United States Environmental Protection Agency's "Avoided Emissions and Generation Tool", which estimates the regional displacement of fossil fuels for a new solar PV installation.



## 2. About New Energy Solar

### OVERVIEW OF NEW ENERGY SOLAR

KEY FEATURES	SUMMARY
<b>New Energy Solar</b>	New Energy Solar is an award-winning sustainable investment business focused on investing in large scale solar power plants and associated assets that generate emissions-free power. The Business currently focuses on assets with contracted cash flows in the US and Australia.
<b>Revenue generated by the Business</b>	The Business generates revenue through directly or indirectly acquiring and operating large scale solar power plants. The solar power plants generate revenue by selling the electricity generated by the plants under long term (10+ years) PPAs with creditworthy electricity buyers (Offtakers). The Company and the Trust may acquire, directly or indirectly, project companies which own these power plants through different entity structures including subsidiary companies, sub-trusts and US or other offshore partnerships or companies. The Company and the Trust may also acquire power plants alongside investment partners.
<b>Investment objective</b>	The Business' objective is to acquire large scale solar power plants and associated assets, which have contracted cash flows from creditworthy Offtakers, and to help investors generate positive social impacts and financial returns. Financially, these assets are expected to produce stable long-term cash flows, while from a social perspective, an investment in solar assets results in a significant reduction in emissions (relative to fossil fuel power). The Business' mandate does allow investments in other types of renewable energy and related assets, however the Board of the Company and the Board of the Responsible Entity (Boards) do not currently contemplate acquiring any assets other than solar and associated assets.
<b>Investment strategy</b>	The Business' current focus is investing in large solar power plants, either utility scale or commercial/ industrial rooftop systems, with contracted cash flows. The Business seeks to acquire assets which, over their technical life, are expected to support gross portfolio returns of 7% to 10% p.a. (before taxes, management expenses, administration costs, and external corporate borrowing costs) <sup>1</sup> . It is important to note that the Business' distributions may be less than the actual or target returns of its assets. While the Business is currently focused on US and Australian opportunities, its investment mandate is global and investments will be considered in those geographies with supportive regulatory and legal arrangements, well understood solar resource, creditworthy Offtakers and supportive foreign investment arrangements.

<sup>1</sup>. The Business may target assets outside this range where market conditions and other circumstances suggest it may be beneficial.

## KEY MILESTONES

2015

**November**  
Establishment of NEW

2016

**January**  
Initial equity raising completed

**October**  
Committed to acquire majority interest in NC-47 solar power plant

**August**  
Committed to acquire majority interest in NC-31 solar power plant

**December**  
Second equity raising completed  
Acquisition of Stanford solar power plant and TID solar power plant

2017

**March**  
NC-31 acquisition completed

**June**  
Announced distribution reinvestment plan  
Announced first distribution

**December**  
A\$202m equity raising and listing on the ASX

**May**  
NEW establishes permanent US office  
NC-47 acquisition completed

**October**  
US debt private placement completed  
Committed to acquire 130 MW<sub>DC</sub> Rigel Portfolio

2018

**February**  
Committed to acquire 200 MW<sub>DC</sub> Mount Signal 2 plant  
Acquired interest in 125 MW<sub>DC</sub> Boulder Solar 1 plant

**May**  
Committed to acquire minority interests in NC-31 and NC-47

**July**  
Agreement to acquire Beryl, NEW's second Australian plant  
Announcement of Security Purchase Plan  
Issuance of 18.5-year US private placement notes

**March**  
Acquired interest in 200 MW<sub>DC</sub> Mount Signal 2 plant

**June**  
Agreement to acquire Manildra, NEW's first Australian plant  
NEW & Clean Energy Finance Corporation sign binding agreements for A\$50m facility

**September**



2 offices



19 staff



Over A\$1.1 billion  
capital invested



844 MW<sub>DC</sub>  
portfolio



### KEY PORTFOLIO METRICS



**Notes:**

- \*Estimates assume all plants under construction and committed to are operational and all plants are owned on a 100% basis.
- 1. Figure excludes the second tranche of the Rigel portfolio.
- 2. As at 30 June 2018 and assuming the option to extend the Manildra PPA is exercised.
- 3. US CO<sub>2</sub> emissions calculated using the US Environmental Protection Agency's Avoided Emissions and Generation Tool (AVERT) and Australian CO<sub>2</sub> emissions displacement is calculated using data from the Australian Government – Department of the Environment and Energy.
- 4. Calculated using data from the US Environmental Protection Agency and the Australian Bureau of Statistics.
- 5. Calculated using data from the US Energy Information Administration and the Australian Energy Regulator.



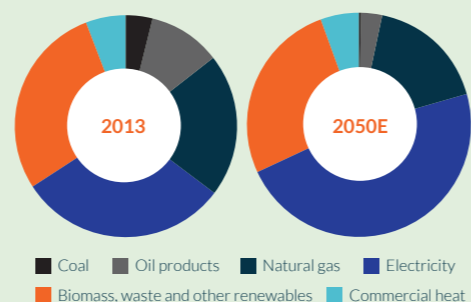
# 3. Industry

## GLOBAL ELECTRICITY DEMAND AND SUPPLY

Global electricity demand is expected to increase as populations grow and economies develop. Increases in electricity demand can be broadly split between developed and developing economies, with different factors driving the increase in each segment. In developing countries, electricity consumption growth is expected to be more rapid as access to electricity improves through development and urbanisation. In more mature, developed countries, increasing end-use electrification is the predominant driver of electricity demand growth. Examples of end-use electrification include the electrification of freight and passenger railways, and the shift from internal combustion engines to electric motors in the automobile market.

Source: International Energy Agency (2016), Energy Technology Perspectives 2016, OECD / IEA, Paris (The International Energy Agency has not consented to the inclusion of the above statement and charts in this Sustainability Report.)

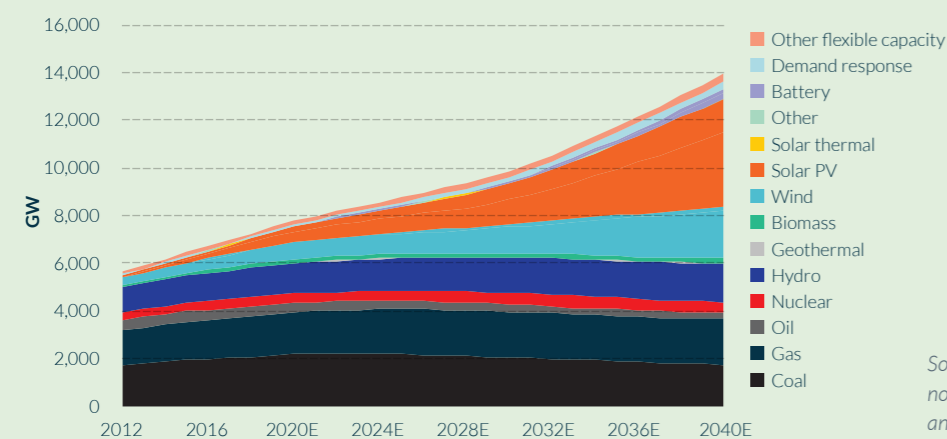
Figure 1: World – end-use electrification, 2013 to 2050E



## A SHIFT TO RENEWABLES

The growth in demand for electricity is expected to be met by an increasing proportion of renewable electricity generation. This forecast shift towards renewable energy is increasingly based on underlying project economics, but is also supported by government policy. As at 31 December 2017, 179 countries had renewable energy targets in place. This compares to 43 countries in 2005. The significant increase in the number of countries with renewable energy targets has been a result of a more coordinated global approach to climate change. In particular, the Paris Agreement of December 2015, saw 197 nations reach an agreement to keep global temperature rises this century (i.e. 2000 to 2100) to below two degrees Celsius and to drive efforts to limit the temperature increase even further to 1.5 degrees Celsius above preindustrial levels. The Paris Agreement has subsequently been ratified by 181 of these countries and came into force in November 2016. Although the US has announced its intention to withdraw from the Paris Agreement, the Business has continued to see a strong pipeline of new renewable energy projects in the US with favourable economics. This trend has not been limited to the US, with other developed markets such as Australia seeing renewable energy generation from new projects becoming increasingly cost competitive with new plants using conventional fossil fuels on an unsubsidised basis (referred to as Grid Parity, and based on capital and operating costs over the expected life of the plant).

Figure 2: Global installed electricity capacity (2012 to 2040E)

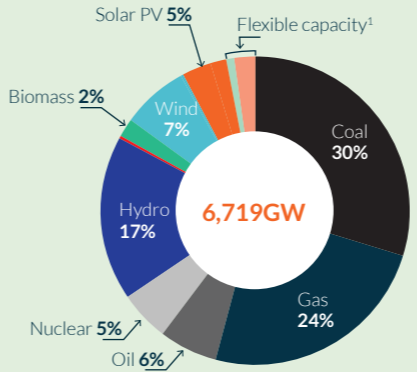


Source: BNEF, New Energy Outlook 2017 (BNEF has not consented to the inclusion of the above statement and chart in this Sustainability Report.)

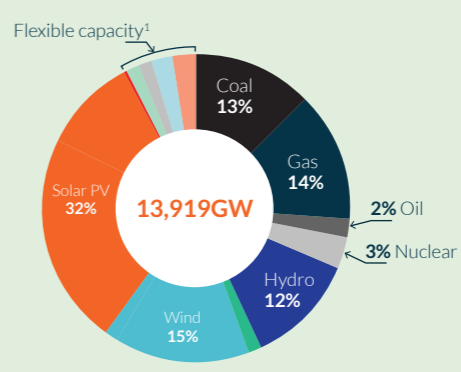




**Figure 3: Global installed electricity generation capacity (2016)**



**Figure 4: Global installed electricity generation capacity (2040E)**



**Note:**

1. Flexible capacity is comprised of additional system services that absorb variations in power generation, ensure system stability and help meet demand peaks. This capacity includes a range of technology options such as demand response, battery storage, greater cross-border interconnections, renewable control systems, virtual power plants and flexible distributed capacity.

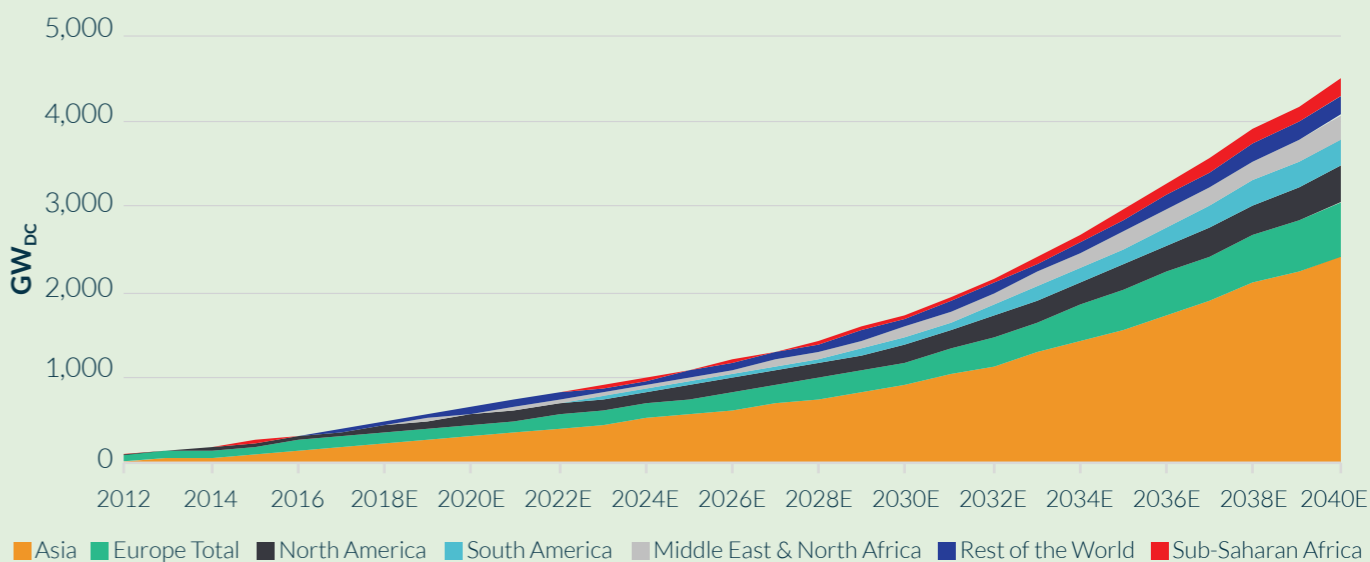
Source: BNEF, New Energy Outlook 2017 (BNEF has not consented to the inclusion of the above charts in this Sustainability Report.)

**INTRODUCTION TO SOLAR PV**

Solar energy is a form of renewable energy generated when sunlight is converted into electricity. Solar PV converts sunlight directly into electricity using photovoltaic cells aggregated in the form of a panel. PV panels can be installed on a range of surfaces with sunlight exposure. Previously, most PV was originally installed on rooftops for domestic use, although due to technological developments and improved economics it has been more recently applied at utility scale. Utility scale PV installations are generally constructed in designated areas called solar power plants where panels are ground mounted and directly exposed to sunlight. Some solar plants contain tracking systems which optimise the position of the panels relative to the sun to improve efficiency.

The adoption of solar energy has historically lagged hydroelectric and wind generation, with less than 1% of electricity generation in Australia and the US coming from utility scale solar in 2015. More recently, global solar PV installations have increased materially due to technological advances, scaled-up generation and falling unit costs. Total global solar PV capacity is currently approximately 400GW<sub>DC</sub> – equivalent to approximately nine times the total power generation capacity in Australia’s National Electricity Market<sup>1</sup>, or enough to power the equivalent of 109 million New South Wales (NSW) homes<sup>2</sup>.

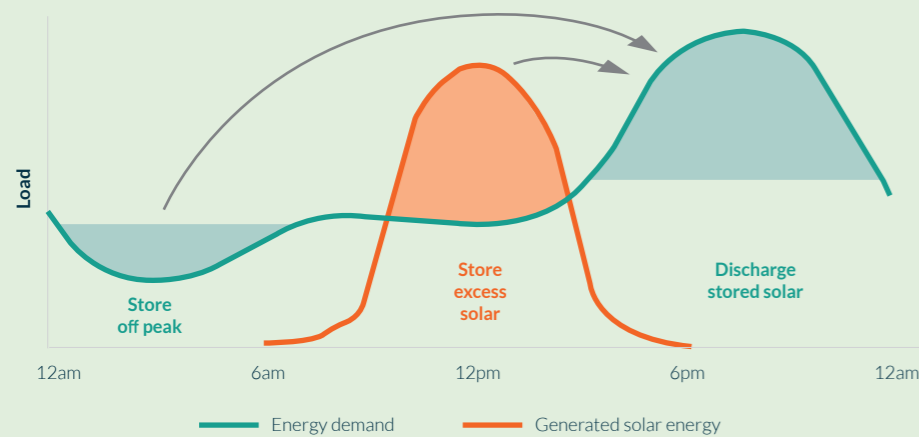
**Figure 5: Global cumulative installed solar capacity, 2012 to 2040E (GW<sub>DC</sub>)**



Source: BNEF, New Energy Outlook 2017. BNEF has not consented to the inclusion of this chart in this Sustainability Report.

In the past, little need existed for large-scale electricity storage as fossil fuel generation typically produces a base load, or continuous, generation profile. In the context of intermittent generation, storage is important as it enables renewable energy to provide comparable, reliable base-load generation and, depending on the storage technology, network stability or support services. With the improvement in energy storage technologies, solar plus storage has the potential to become a flexible and cost-effective solution to bolster power generation capacity as aging thermal generation plants are retired. Batteries can be added to new solar installations or retrofitted to existing solar plants to “smooth” out the daytime generation profile of solar which naturally follows sunlight. Historically, the use of solar plus storage has been limited due to the high cost of storage systems. In recent years, storage costs have rapidly decreased driven in part by the electric vehicle industry increasing technology advancement and cost improvement in batteries.

**Figure 6: Illustrative solar plus energy storage versus energy demand**



**Figure 6:** Energy storage technology can be used to store excess electricity generated by solar plants during the day and then despatched to the market in the evening when demand for electricity rises.

1. Based upon National Electricity Market capacity as at 31 March 2018 of 44.1GW.
2. Based on a solar power plant capacity factor of 20%, DC to AC ratio of 1.25 and NSW average household consumption of 5,137kWh per annum (per Australia Energy Regulator) estimates.





## 4. Environmental, Social & Governance Framework

### KEY TOPICS

### WHAT IS PROVIDED IN THIS REPORT

#### Energy and climate change

New Energy Solar's impact on renewable energy development, providing a clean energy source to communities in rural and metro areas

The displacement of CO<sub>2</sub> emissions via its operating solar portfolio and assisting states in their transition to a low carbon economy, as well as achieving their respective renewable energy targets

#### Community engagement

New Energy Solar's involvement in the Solar Buddy program, providing a light source to marginalised communities in developing countries

The Business' impact on local communities, including the creation of jobs and its engagement and donations to local schools and community centres

#### Health and safety of people and communities

New Energy Solar's commitment to the health and safety of its employees<sup>1</sup>, partners, and surrounding environment

Its preventative and proactive approach when dealing with health and safety hazards

#### Corporate governance and fiduciary duty to stakeholders

The Business' approach in implementing a system of rules and practices that preserves its integrity and efficiency

Adequate disclosure measures to meet the interests of stakeholders including securityholders, customers, financiers, government, and the community

Acquisition and asset management principles and practices as they relate to dealing with anti-corruption, labour standards and other ethical factors

<sup>1</sup>. Refers to employees of the Responsible Entity, NEW does not have any direct employees.

## SUSTAINABLE DEVELOPMENT GOALS ADHERED TO VIA NEW'S BUSINESS PRACTICES



Sustainability is a global opportunity and NEW's business practices do not exist in isolation.

In 2015, the United Nations created a blueprint to addressing global challenges including poverty, inequality, and climate change, with the 17 Sustainable Development Goals (SDG). Each goal has specific targets to be achieved with a 15-year timeframe (by 2030).

NEW has identified 12 United Nations SDGs that it can best contribute to. In this Report, NEW uses the SDG symbols in several places to demonstrate the business activities that contribute to these specific goals.



## ENVIRONMENTAL



### SOLAR PLANT PORTFOLIO

New Energy Solar aims to contribute to mitigating the consequences of climate change by generating clean, emission-free energy and promoting maximum efficiency in the Business' operations. As at 31 August 2018, New Energy Solar's portfolio comprised 22 solar power plants in the US and Australia that are operational (ten), acquired and under construction (six) or that NEW has committed to acquiring (six).

Once fully operational, the NEW portfolio is expected to generate 1,700 gigawatt hours (GWh) of electricity each year – enough energy to displace 1,174,000 tonnes of CO<sub>2</sub> emissions.

This is the equivalent of powering about 233,000 US and Australia households – or all of the households in Wollongong and Newcastle in New South Wales, or removing nearly 304,000 US and Australian equivalent cars from the road, every year. The New Energy Solar team continues to analyse a deep pipeline of opportunities around the world.



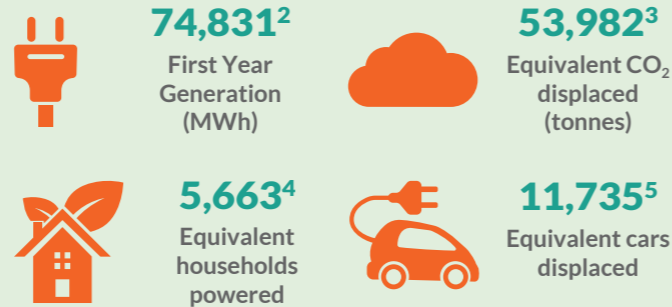
**U.S. PLANTS - NORTH CAROLINA (EXCLUDING PLANTS IN THE CCR PORTFOLIO)**

**1 NC-31**

NEW's first investment was in the NC-31 Solar Plant (NC-31), a 43.2 MW<sub>DC</sub> solar farm located in Bladenboro, North Carolina. The plant has a 10-year power purchase agreement (PPA) with Duke Energy Progress, Inc.<sup>1</sup> – a subsidiary of the largest electric power holding company in the United States. NEW acquired its interest in the plant in March 2017 and acquired the minority interests in July 2018.



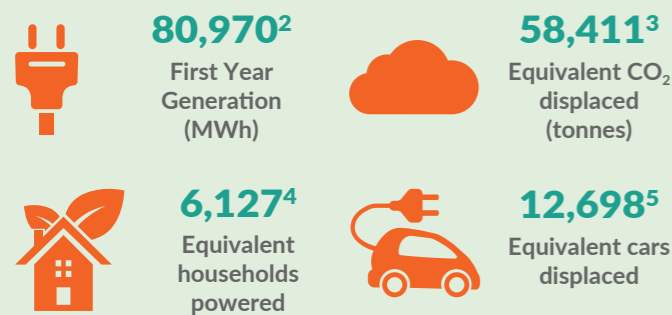
LOCATION	Bladenboro, Bladen County, North Carolina
CAPACITY	43.2 MW <sub>DC</sub>
STATUS	Operating
COMMENCED OPERATIONS	March 2017
OFFTAKER	Duke Energy Progress
PPA TERM	10 years from COD



**2 NC-47**

Located in Robeson County, North Carolina, the NC-47 Solar Plant (NC-47), commenced commercial operations in May 2017 and was NEW's second investment. As with NC-31, the plant has a 10-year PPA with Duke Energy Progress.

LOCATION	Maxton, Robeson County, North Carolina
CAPACITY	47.6 MW <sub>DC</sub>
STATUS	Operating
COMMENCED OPERATIONS	May 2017
OFFTAKER	Duke Energy Progress
PPA TERM	10 years from COD



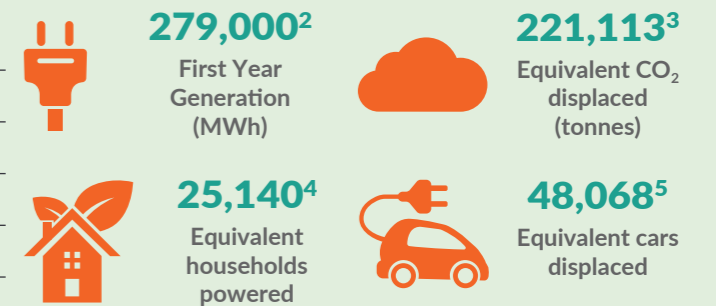
**U.S. PLANTS - NEVADA**

**3 BOULDER SOLAR 1**

The 125 MW<sub>DC</sub> Boulder Solar 1 Power Plant (Boulder Solar 1) is located in Clarke County, Nevada USA. The plant commenced commercial operations in December 2016, and NEW acquired a 49% equity interest in Boulder Solar 1 in February 2018. The plant has a 20-year PPA with NV Energy<sup>1</sup>, a subsidiary of Berkshire Hathaway Energy, which services more than 1.2 million customers. The electricity generated by Boulder is one of the energy sources that has allowed Las Vegas to become the largest US city to rely solely on renewable energy for city facilities.



LOCATION	Boulder City, Clarke County, Nevada
CAPACITY	124.8 MW <sub>DC</sub>
STATUS	Operating
COMMENCED OPERATIONS	December 2016
OFFTAKER	NV Energy
PPA TERM	20 years from COD



1. From Commercial Operations Date (COD).
2. Generation is illustrative of the first 12 months of energy production based on the power plant's P50 forecast.
3. US CO<sub>2</sub> emissions displacement is calculated using data from the US Environmental Protection Agency's "Avoid Emissions and Generation Tool" (AVERT). Australian CO<sub>2</sub> emissions displacement is calculated using data from the Australian Government – Department of the Environment and Energy.
4. Calculated using data from the US Energy Information Administration (principal agency of the US Federal Statistical System) and the Australian Energy Regulator.
5. Calculated using data from the US Environmental Protection Agency and the Australian Bureau of Statistics.

## U.S. PLANTS - CALIFORNIA

### OPERATING



#### 4 TID

Turlock Irrigation District Solar Power Plant (TID) is a 67.4 MW<sub>DC</sub> solar power plant situated in Kern County, California. NEW acquired its interests in the plant shortly after the plant commenced commercial operations in December 2016. The plant has a 20-year PPA with Turlock Irrigation District<sup>1</sup> – a not-for-profit irrigation water and electric utility that has operated since 1887.



**157,784<sup>2</sup>**  
First Year  
Generation  
(MWh)



**84,429<sup>3</sup>**  
Equivalent CO<sub>2</sub>  
displaced  
(tonnes)



**23,871<sup>4</sup>**  
Equivalent  
households  
powered



**18,317<sup>5</sup>**  
Equivalent cars  
displaced

LOCATION	Rosamond, Kern County, California
CAPACITY	67.4 MW <sub>DC</sub>
STATUS	Operating
COMMENCED OPERATIONS	December 2016
OFFTAKER	Turlock Irrigation District
PPA TERM	20 years from COD

#### 5 STANFORD

Located adjacent to TID in Kern County, California is the 67.4 MW<sub>DC</sub> Stanford Solar Power Plant (Stanford). NEW acquired its interests shortly after the plant commenced operations in December 2016. Stanford has a 25-year PPA with The Board of Trustees of the Leland Stanford Junior University<sup>1</sup>.



LOCATION	Rosamond, Kern County, California
CAPACITY	67.4 MW <sub>DC</sub>
STATUS	Operating
COMMENCED OPERATIONS	December 2016
OFFTAKER	Stanford University
PPA TERM	25 years from COD



**157,989<sup>2</sup>**  
First Year  
Generation  
(MWh)



**84,540<sup>3</sup>**  
Equivalent CO<sub>2</sub>  
displaced  
(tonnes)



**23,902<sup>4</sup>**  
Equivalent  
households  
powered



**18,341<sup>5</sup>**  
Equivalent cars  
displaced

### UNDER CONSTRUCTION



#### 6 MOUNT SIGNAL 2

NEW acquired its interests in the 200 MW<sub>DC</sub> Mount Signal 2 Solar Power Plant (Mount Signal 2) in March 2018. Construction of the plant commenced during August 2018. Mount Signal 2 has a 20-year PPA with Southern California Edison – a subsidiary of Edison International, which serves a population of more than 15 million people and is the primary electricity provider for central, southern and coastal California.



**458,489<sup>2</sup>**  
First Year  
Generation  
(MWh)



**246,899<sup>3</sup>**  
Equivalent CO<sub>2</sub>  
displaced  
(tonnes)



**69,400<sup>4</sup>**  
Equivalent  
households  
powered



**53,674<sup>5</sup>**  
Equivalent cars  
displaced

LOCATION	Imperial Valley, Imperial County, California
CAPACITY	199.6 MW <sub>DC</sub>
STATUS	Under construction
EXPECTED OPERATIONS DATE	Late 2019
OFFTAKER	Southern California Edison
PPA TERM	20 years from mid-2020

1. From Commercial Operations Date (COD).
2. Generation is illustrative of the first 12 months of energy production based on the power plant's P50 forecast.
3. US CO<sub>2</sub> emissions displacement is calculated using data from the US Environmental Protection Agency's "Avoid Emissions and Generation Tool" (AVERT). Australian CO<sub>2</sub> emissions displacement is calculated using data from the Australian Government – Department of the Environment and Energy.
4. Calculated using data from the US Energy Information Administration (principal agency of the US Federal Statistical System) and the Australian Energy Regulator.
5. Calculated using data from the US Environmental Protection Agency and the Australian Bureau of Statistics.



## U.S. PORTFOLIO (CCR PLANTS)

NEW has acquired a portfolio of eight utility-scale solar PV projects from leading US developer Cypress Creek Renewables, LLC (CCR). Six of these solar power plants are located in North Carolina and two are located in Oregon.

A total of four of the eight plants had commenced commercial operations as at 31 August 2018 and NEW is currently working closely alongside with CCR to bring the remaining four into operation. The CCR portfolio has a total capacity of 55.5 MW<sub>DC</sub>.

## CCR PORTFOLIO – NORTH CAROLINA

As at 31 August 2018, the Arthur, Church Road, Hanover, and HeedeH solar power plants have commenced commercial operations, with an additional two solar plants currently under construction (County Home and Organ Church). The offtakers for each of the plants, Duke Energy Progress and Duke Energy Carolinas, are subsidiaries of Duke Energy (NYSE:DUK); one of the largest electric power holding companies in the United States.



**58,955<sup>2</sup>**  
First Year  
Generation\*  
(MWh)



**42,530<sup>3</sup>**  
Equivalent CO<sub>2</sub>  
displaced  
(tonnes)



**4,461<sup>4</sup>**  
Equivalent  
households  
powered



**9,246<sup>5</sup>**  
Equivalent cars  
displaced

\* Figure is the sum of the expected first year generation of each facility in the CCR Portfolio located in North Carolina

## OPERATING

### 7 ARTHUR SOLAR POWER PLANT (ARTHUR)

<b>LOCATION</b>	Tabor City, Columbus County, North Carolina
<b>CAPACITY</b>	7.5 MW <sub>DC</sub>
<b>STATUS</b>	Operating
<b>COMMENCED OPERATIONS</b>	July 2018
<b>OFFTAKER</b>	Duke Energy Progress
<b>PPA TERM</b>	15 years from COD



2. Generation is illustrative of the first 12 months of energy production based on the power plant's P50 forecast.
3. US CO<sub>2</sub> emissions displacement is calculated using data from the US Environmental Protection Agency's "Avoid Emissions and Generation Tool" (AVERT). Australian CO<sub>2</sub> emissions displacement is calculated using data from the Australian Government – Department of the Environment and Energy.
4. Calculated using data from the US Energy Information Administration (principal agency of the US Federal Statistical System) and the Australian Energy Regulator.
5. Calculated using data from the US Environmental Protection Agency and the Australian Bureau of Statistics.

## OPERATING (CONTINUED)



### 8 CHURCH ROAD SOLAR POWER PLANT (CHURCH ROAD)

<b>LOCATION</b>	Willow Springs, Johnston County, North Carolina
<b>CAPACITY</b>	5.2 MW <sub>DC</sub>
<b>STATUS</b>	Operating
<b>COMMENCED OPERATIONS</b>	August 2018
<b>OFFTAKER</b>	Duke Energy Progress
<b>PPA TERM</b>	15 years from COD

### 9 HANOVER SOLAR POWER PLANT (HANOVER)

<b>LOCATION</b>	Maysville, Onslow County, North Carolina
<b>CAPACITY</b>	7.5 MW <sub>DC</sub>
<b>STATUS</b>	Operating
<b>COMMENCED OPERATIONS</b>	April 2018
<b>OFFTAKER</b>	Duke Energy Progress
<b>PPA TERM</b>	15 years from COD



### 10 HEEDEH SOLAR POWER PLANT (HEEDEH)

<b>LOCATION</b>	Delco, Columbus County, North Carolina
<b>CAPACITY</b>	5.4 MW <sub>DC</sub>
<b>STATUS</b>	Operating
<b>COMMENCED OPERATIONS</b>	July 2018
<b>OFFTAKER</b>	Duke Energy Progress
<b>PPA TERM</b>	15 years from COD

**UNDER CONSTRUCTION**

**11 COUNTY HOME SOLAR POWER PLANT (COUNTY HOME)**

<b>LOCATION</b>	Rockingham, Richmond County, North Carolina
<b>CAPACITY</b>	7.2 MW <sub>DC</sub>
<b>STATUS</b>	Under construction
<b>EXPECTED OPERATION DATE</b>	H2 2018
<b>OFFTAKER</b>	Duke Energy Progress
<b>PPA TERM</b>	15 years from COD



**12 ORGAN CHURCH SOLAR POWER PLANT (ORGAN CHURCH)**

<b>LOCATION</b>	Rockwell, Rowan County, North Carolina
<b>CAPACITY</b>	7.5 MW <sub>DC</sub>
<b>STATUS</b>	Under construction
<b>EXPECTED OPERATIONS DATE</b>	H2 2018
<b>OFFTAKER</b>	Duke Energy Carolinas
<b>PPA TERM</b>	15 years from COD

**CCR PORTFOLIO - OREGON**

The two Oregon solar plants, Bonanza and Pendleton, remain under construction and are scheduled to commence operations during H2 2018. Both sites have secured PPAs with PacifiCorp, a wholly owned subsidiary of Berkshire Hathaway Energy. PacifiCorp is a US electric power company that primarily operates regulated utilities with a service territory across the US states of Oregon, Washington, California, Utah, Idaho and Wyoming.



\* Figure is the sum of the expected first year generation of each facility in the CCR Portfolio located in Oregon

**13 BONANZA SOLAR POWER PLANT (BONANZA)**

<b>LOCATION</b>	Bonanza, Klamath County, Oregon
<b>CAPACITY</b>	6.8 MW <sub>DC</sub>
<b>STATUS</b>	Under construction
<b>EXPECTED OPERATION DATE</b>	H2 2018
<b>OFFTAKER</b>	PacifiCorp
<b>PPA TERM</b>	13.25 years from COD



**14 PENDLETON SOLAR POWER PLANT (PENDLETON)**

<b>LOCATION</b>	Pendleton, Umatilla County, Oregon
<b>CAPACITY</b>	8.4 MW <sub>DC</sub>
<b>STATUS</b>	Under construction
<b>EXPECTED OPERATIONS DATE</b>	H2 2018
<b>OFFTAKER</b>	PacifiCorp
<b>PPA TERM</b>	13.2 years from COD

- 2. Generation is illustrative of the first 12 months of energy production based on the power plant's P50 forecast.
- 3. US CO<sub>2</sub> emissions displacement is calculated using data from the US Environmental Protection Agency's "Avoid Emissions and Generation Tool" (AVERT). Australian CO<sub>2</sub> emissions displacement is calculated using data from the Australian Government - Department of the Environment and Energy.
- 4. Calculated using data from the US Energy Information Administration (principal agency of the US Federal Statistical System) and the Australian Energy Regulator.
- 5. Calculated using data from the US Environmental Protection Agency and the Australian Bureau of Statistics.

## AUSTRALIAN PLANTS

### OPERATING

#### 15 MANILDRA

The Manildra Solar Power Plant (**Manildra**) is located in Central West NSW, approximately 45 kilometres west of Orange. Manildra has been operating since April 2018 and is expected to reach full commercial operations during the second half of 2018. NEW announced its agreement to acquire Manildra in June 2018.

Once full commercial operations are achieved, the plant will sell power and Large Scale Generation Certificates to EnergyAustralia. EnergyAustralia is one of Australia's largest electricity retailers servicing over 1.7 million customers.



LOCATION	Manildra, New South Wales
CAPACITY	55.9 MW <sub>DC</sub>
STATUS	Operating
COMMENCED OPERATIONS	April 2018
OFFTAKER	EnergyAustralia
PPA TERM	10 years from COD, with options to extend to December 2030



**118,000<sup>2</sup>**

First Year Generation (MWh)



**97,940<sup>3</sup>**

Equivalent CO<sub>2</sub> displaced (tonnes)



**22,971<sup>4</sup>**

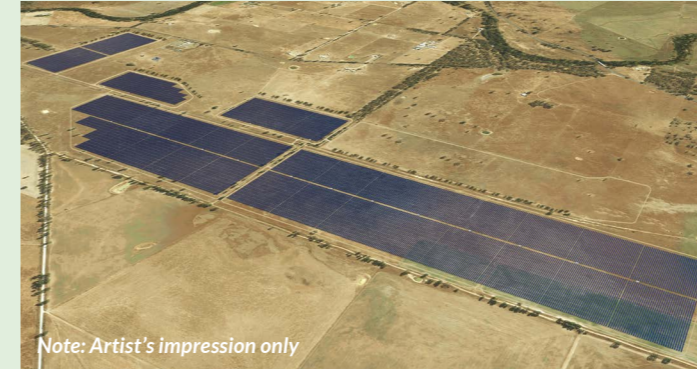
Equivalent households powered



**39,333<sup>5</sup>**

Equivalent cars displaced

### UNDER CONSTRUCTION



Note: Artist's impression only

#### 16 BERYL

The Beryl Solar Power Plant (**Beryl**) is located in Central West NSW, approximately 5 kilometres west of Gulgong. Beryl is currently under construction and is expected to reach commercial operations in mid-2019. The PPA offtaker, Transport for NSW, intends to use the electricity produced by Beryl to meet the operational electricity needs of the Sydney Metro Northwest railway.



**199,000<sup>2</sup>**

First Year Generation (MWh)



**165,170<sup>3</sup>**

Equivalent CO<sub>2</sub> displaced (tonnes)



**38,739<sup>4</sup>**

Equivalent households powered



**66,333<sup>5</sup>**

Equivalent cars displaced

LOCATION	Beryl, New South Wales
CAPACITY	108.4 MW <sub>DC</sub>
STATUS	Under construction
EXPECTED OPERATIONS DATE	Mid 2019
OFFTAKER	Transport for NSW
PPA TERM	15 years from COD

2. Generation is illustrative of the first 12 months of energy production based on the power plant's P50 forecast.

3. US CO<sub>2</sub> emissions displacement is calculated using data from the US Environmental Protection Agency's "Avoid Emissions and Generation Tool" (AVERT). Australian CO<sub>2</sub> emissions displacement is calculated using data from the Australian Government - Department of the Environment and Energy.

4. Calculated using data from the US Energy Information Administration (principal agency of the US Federal Statistical System) and the Australian Energy Regulator.

5. Calculated using data from the US Environmental Protection Agency and the Australian Bureau of Statistics.

## SOCIAL

### COMMUNITY GIVING



New Energy Solar finances and actively manages solar plants in local communities around the United States and Australia, and as such, it is involved socially and economically in these jurisdictions. The Business not only looks to add value via providing sustainable energy solutions, although also strives to make tangible contributions to the prosperity and economic development of the regions in which it operates.

NC-31 and NC-47, located in North Carolina's Bladen County and Robeson County respectively, are estimated to have delivered over US\$22 million of economic impact to these regions over the course of 2016 and the first half of 2017. The solar industry in North Carolina is responsible for over 7,600 jobs, which includes individuals and companies involved in development, installation, construction and project management services. New Energy Solar is particularly proud to have contributed to the creation of quality jobs in this growing industry, and to have provided better infrastructure that is both innovative and sustainable.

Philanthropy is also of central importance to the Business as it expands its reach into new communities. NEW has taken an active involvement in local schools and religious centres, offering regular funding to church and community groups and to some of the local high schools in the region in order to improve the learning environment.

The Business also opens its solar plants for educational purposes, offering site testing and tours to educate high school and university students of solar technology and its importance in mitigating greenhouse gas emissions. In NEW's California facilities located in Rosamond, the team is working with University of California Berkeley, who are exploring the concept of structural changes to soil hydrology and soil biology in solar power plants. This is of particular importance to the Business as land preservation is a key topic in the investment process, and is strictly monitored during a plant's construction phase and throughout its operational life.

NEW's involvement in education institutions also extends to its offtakers. Stanford University has a long-term agreement to purchase 100 percent of the power, as well as the renewable energy credits (RECs), generated from one of NEW's Rosamond plants, the Stanford Solar Generating Station. Established in 1885, Stanford University is a world leading teaching and research university with a significant energy requirement. The university is active in exploring a range of new technologies and options to improve the efficiency of energy produced from sun, wind, biomass, and geothermal resources. While Stanford University services its energy requirement from a variety of sources, NEW is pleased to provide a renewable source that assists in the overall sustainability of the campus.



## SOCIAL (CONTINUED)

### SOLARBUDDY PROGRAM



Providing positive impacts to the community through active participation and contributions (beyond NEW's primary operations of solar energy generation) is an embedded goal for the Business. NEW and Australian charity, SolarBuddy, announced a partnership in May 2018 to assist communities suffering energy poverty. Energy poverty is defined as the lack of access to modern energy services including household electricity, and is considered fundamental to fulfilling basic social needs, driving economic growth and fuelling human development. The United Nations and World Health Organization have found that the wealth and development of a nation is closely correlated to the type and extent of access to energy.

SolarBuddy estimates that 1.4 billion people around the world do not have access to modern electricity, with many resorting to large amounts of wood and toxic kerosene to serve as their primary light source during the evening. NEW is proud to address this problem directly through SolarBuddy's two-pronged approach – education and illumination.

The initiative promotes energy poverty education in local communities through the SolarBuddy Education Program, where children are provided with the opportunity to build SolarBuddy solar lights. The SolarBuddy solar light is the world's first and only LED solar light that can be assembled by a child as young as seven years, and is comprised of a high UV resistant plastic and a tough rubber encasement designed to prolong usage. Since 2016, over 100,000 students across 400 schools and 13 countries have participated in the SolarBuddy Education Program; building lights and distributing them to marginalised communities around the world.

These solar lights have also been used by Non-Governmental Organisations (NGOs) including Australia Aid, Red Cross and the United Nations. To date, over 200,000 lives have been illuminated by SolarBuddy solar lights.

SolarBuddy's overarching mission is to reach six million children in the South Pacific, SouthEast Asia, and Africa regions by 2030. "We're thrilled to be partnering with New Energy Solar, and with their support we'll be able to reach thousands more children, providing them with a solar light to assist them to study and learn long after the sun goes down and to improve their overall health and wellbeing," said Simon Doble, CEO of SolarBuddy.

The alliance will see more than 20,000 lightweight solar lights delivered to rural communities in Papua New Guinea and parts of Africa over the next three years, providing approximately 60,000 children living in energy poverty with safe solar lighting to further their education opportunities.

Actively seeking initiatives to promote wellbeing within the community and environment is a priority for NEW and partnering with SolarBuddy is well aligned with this objective. It is NEW's intention to continue seeking out opportunities such as SolarBuddy to expand its positive impact and raise awareness on issues that can be addressed by renewable energy sources.



## SOCIAL (CONTINUED)

### HEALTH AND SAFETY



The health and safety of employees, contractors, service providers, and the surrounding communities are of pivotal importance to the Business. As NEW's assets are generally located in rural areas often adjacent to farm properties, and contain high voltage and transmission equipment, any accident could threaten peoples' well-being and could result in damage to property, environmental issues, endangerment of wildlife, plant availability loss and reputational impacts. As such, health and safety are firmly ingrained in all processes of the Business, including throughout the planning and construction phase of each plant, as well as when the plants are commercially operating. It is NEW's objective to have an injury free workplace, which is achievable via appropriate policies and procedures, and an emphasis on safety culture throughout the Business.

Prior to the beginning of construction activities on each of NEW's solar sites, an Engineering, Procurement and Construction Agreement (EPC Agreement) must be agreed upon and signed by NEW and the EPC counterparty. Each EPC Agreement contains a comprehensive and systematic Health and Safety plan that explicitly outlines certain requirements according to each site location and layout of the plant. Each plan is developed to identify the health, safety, and security measures that will be employed at the work site at all times, and includes the various state and federal laws in which all contractors, subcontractors, and site visitors must adhere to.

At the commencement of construction activities, a site health and safety committee is established for each location, consisting of both management and field representatives from the EPC team, all of whom must obtain OSHA<sup>1</sup> construction safety certification. This committee is responsible for facilitating daily safety briefings and weekly "toolbox" meetings, designed to address potential safety concerns on site, and ensure the implementation of preventive safety measures.

Injury reporting and investigation is of equal importance, as it allows the committee to evaluate existing preventive measures, thus reducing the likelihood of a similar event occurring in the future. On site, all injuries and incidents must be reported immediately, which is followed by a well-documented investigation process, detailed report, and corrective action.

NEW's underlying philosophy is that all injuries and accidents can be prevented. While the Business strives to provide sustainable and reliable energy to the community, incorporated in this goal is its commitment to providing a safe and healthy environment for the benefit of all employees, communities, and stakeholders alike.

1. Occupational Safety and Health Administration.



## GOVERNANCE



The Boards recognise the importance of strong corporate governance and are committed to high standards of governance and compliance. The Boards where appropriate, benchmark the Business against the 3rd Edition of the Corporate Governance Principles & Recommendations issued by the Australian Stock Exchange (the “ASX”) Corporate Governance Council. The Boards’ corporate governance policies have been documented in the Corporate Governance Charter which is made available to stakeholders on the Business’ website. The Boards have adopted the following governance framework, having been prepared with regard to the ASX recommendations. These policies are reviewed at least annually and are reported on in the corporate governance statement which is included in the annual report each year (Corporate Governance Statement). Any changes in the Corporate Governance Charter will be documented. Refer to the Corporate Governance Charter in addition to section 10.8.5 and 10.8.6 of the Product Disclosure Statement and Prospectus for more information on each of the below policies.

### CORPORATE GOVERNANCE POLICIES

- Continuous Disclosure
- Investor Communications
- Security Trading Policy
- Code of Conduct
- Diversity Policy
- Risk Management Policy
- Compliance Framework
- Capital Allocation Policy
- Borrowing Policy
- Distribution Policy
- Cash Policy and Working Capital
- Hedging Policy
- Raising Further Capital
- Valuation Policy
- Related Party Transaction Policy
- Board Policy
- Conflicts Management Policy
- Insider Trading Policy

The Trust and the Company are disclosing entities for the purposes of the Corporations Act and will be required to comply with the continuous disclosure regime under the Corporations Act. As such, the Business has established internal systems and procedures to ensure that timely disclosure is made to investors. In addition to its continuous disclosure obligations, the Business has a policy of seeking to keep all securityholders informed, including providing information on all major developments affecting the Business’ activities, releases to the media, and despatch of financial reports.

All ASX announcements made to the market, including annual and half-year financial results, and information relating to the Business’ governance are placed on the Business’ website.

In addition to this, the Business looks to enhance its disclosure by adhering to the ASIC Regulatory Guide 231 – Infrastructure entities. The Guide consists of 9 benchmarks and 11 disclosure principles designed to strengthen investor confidence and enable investors to better understand the characteristics of infrastructure entities and the risks associated with them. The Business addresses all 9 benchmarks and 11 disclosure principles via its ASIC Regulatory Guide 231, which can be found on the Business’ website.



The Business has also continued its efforts to assess board composition, and actively facilitate a more diverse and representative management structure. The Boards will include in the Corporate Governance Statement a summary of the Company's progress towards achieving the measurable objectives set under the Diversity Policy for the year to which the annual report relates and the proportion of female directors on the Boards.

An additional area of focus for the Boards was the integration of a comprehensive compliance framework. As part of the Business' risk management process, the Responsible Entity must maintain a compliance plan (which is audited every year), that sets out how the Responsible Entity will maintain compliance with both the Corporations Act and the Trust Constitution. A compliance committee has also been established to monitor compliance with the compliance plan, as well as facilitate training and monitoring on an ongoing basis. The committee itself is comprised of three members, two of which are external representatives and are independent of the Responsible Entity.

Any breaches of policies and procedures will be reported in accordance with the Business's established reporting procedures. The reporting procedures may involve reporting the breach directly to the Boards or to ASIC, depending on the seriousness of the breach.

### TRANSPARENCY AND ANTI-CORRUPTION

The governing values of NEW's culture include integrity, honesty, and professionalism, which are essential to uphold the Business' reputation in the industry and by extension, its success. As such, demonstrating transparency and professional rigor is essential in all of the Business' activities across its office locations and solar plants.

As part of its investment philosophy, the Business places emphasis on environmental and social factors when making investment selection, retention, and disposal decisions. Labour standards and ethical factors are also considered when making these decisions. The Business does not use specific criteria or mechanisms for measuring the success of its approach to these factors and standards.





## 5. About This Report

**Report Scope:** New Energy Solar's Sustainability Report describes its work in four key areas:

- Energy and climate change
- Community engagement
- Health and safety of people and communities
- Corporate governance and fiduciary duty to stakeholders

This report is prepared with reference to the Global Reporting Initiative (GRI), a set of internationally recognised reporting guidelines.

**Boundaries:** This Sustainability Report focuses on NEW's global operations (encompassing its operations in the US and Australia), except where indicated.

**Reporting Year:** NEW has reported data relating to the year from 1 July 2017 to 30 June 2018 unless otherwise noted. In some cases, data and information may include programs and activities underway or introduced in the period since 30 June 2018, as indicated.

**Currency:** All references to currency are in Australian dollars, unless otherwise indicated.

**Reporting History:** This is New Energy Solar's first annual Sustainability Report. NEW plans to publish an updated Sustainability report on an annual basis.

**Contact:** Please direct questions on this Sustainability Report or topics related to NEW's corporate responsibility disclosures to [info@newenergysolar.com.au](mailto:info@newenergysolar.com.au).

**Environmental Impact Calculator:** Find out what your New Energy Solar Investment could mean for the environment.



[newenergysolar.com.au/calculator](http://newenergysolar.com.au/calculator)

