greatcellsolar
Global leaders in hi-tech solar

Greatcell Solar Limited

APPENDIX 4E

Preliminary Final Report
31 August 2017

Appendix 4E
Preliminary Final Report

Part 1 – Contents of ASX Appendix 4E

Part 2 - Details of entity, reporting period

Name of Entity	Greatcell Solar Limited
ABN	92 111 723 883
Financial Period	Year ended 30 June 2017
Previous Corresponding Reporting Period	Year ended 30 June 2016

Part 3 – Results for Announcement to the Market

	$'000	**Percentage increase /(decrease) over previous corresponding period**
Revenue from continuing operations	1,290	26%
Loss after related income tax benefit	(7,666)	(32)%
Net loss attributable to members of the parent entity	(7,660)	(32)%

Dividends (distributions)	**Amount per security**	**Franked amount per security**
Final Dividend	Nil	Nil
Interim Dividend	Nil	Nil
Record date for determining entitlements to the dividends (if any)	Not Applicable	

Brief explanation of any of the figures reported above necessary to enable the figures to be understood:

Refer Part 8 and Part 9 for a commentary on the results for the year.

Part 4 – Consolidated Statement of Profit or Loss and Other Comprehensive Income

	Note	2017 $	2016 $
Revenue from sale of goods and services	10	1,289,624	1,024,542
Cost of sales		(446,404)	(428,259)
Gross profit		843,220	596,283
Interest revenue		31,290	92,165
Other income		318,457	1,050,940
Technical expenses		(8,269,702)	(7,959,285)
Administration and corporate expenses		(3,681,244)	(4,218,078)
Impairment of intangible assets		-	(3,669,705)
Marketing expenses		(837,768)	(955,212)
Borrowing costs		(64,243)	(37,574)
Intellectual property expenses		(289,564)	(413,877)
Share of profit/ (losses) of associate		(3,697)	21
Loss before income tax benefit		(11,953,251)	(15,514,322)
Income tax benefit		4,286,984	4,219,022
Net loss for the year		**(7,666,267)**	**(11,295,300)**
Other comprehensive income			
Items that may be reclassified subsequently to profit or loss			
Exchange differences on translating foreign operations - Group		(105,321)	(150,665)
Other comprehensive income for the period, net of tax		(105,321)	(150,665)
Total comprehensive loss for the year		**(7,771,588)**	**(11,445,965)**
Loss is attributable to:			
Owners of Greatcell Solar Limited		(7,660,452)	(11,290,499)
Non-controlling interest		(5,815)	(4,801)
		(7,666,267)	**(11,295,300)**
Total comprehensive loss for the year is attributable to:			
Owners of Greatcell Solar Limited		(7,765,697)	(11,441,183)
Non-controlling interest		(5,891)	(4,782)
		(7,771,588)	**(11,445,965)**

Part 5 – Consolidated Statement of Financial Position

	Note	2017 $	2016 $
ASSETS			
Current assets			
Cash and cash equivalents		994,987	4,560,518
Trade and other receivables	11	4,555,169	4,344,446
Inventories		600,503	628,106
Other current assets		170,607	382,507
Total current assets		**6,321,266**	**9,915,577**
Non-current assets			
Property, plant and equipment		758,114	651,670
Intangible assets	13	686,769	915,692
Investment in associate		113,485	117,183
Total non-current assets		**1,558,368**	**1,684,545**
Total assets		**7,879,634**	**11,600,122**
LIABILITIES			
Current liabilities			
Trade and other payables		2,407,039	1,775,267
Lease liabilities		204,684	37,792
Borrowings	12	2,500,000	-
Provisions		779,170	662,569
Total current liabilities		**5,890,893**	**2,475,628**
Non-current liabilities			
Other payables		170,871	130,400
Lease liabilities		162,533	-
Provisions		285,045	247,247
Deferred tax liability		221,608	295,478
Total non-current liabilities		**840,057**	**673,125**
Total liabilities		**6,730,950**	**3,148,753**
Net assets		**1,148,684**	**8,451,369**
EQUITY			
Contributed equity	19	108,160,700	108,329,352
Reserves		7,806,963	7,274,654
Accumulated losses		(114,811,639)	(107,151,187)
Capital and reserves attributable to owners of Greatcell Solar		**1,156,024**	**8,452,819**
Non-controlling interest		(7,340)	(1,450)
Total equity		**1,148,684**	**8,451,369**

Part 6 – Consolidated Statement of Cash Flows

	Note	2017 $	2016 $
Cash flows from operating activities			
Cash receipts from customers		1,164,078	1,027,310
Cash payments to suppliers and employees		(11,857,719)	(13,031,878)
R&D tax rebate received		4,073,741	3,521,160
Interest received		49,230	101,417
Interest paid		(55,539)	(22,140)
Grants received		882,124	1,030,386
Net cash used in operating activities	14	**(5,744,085)**	**(7,373,745)**
Cash flows from investing activities			
Payments for plant and equipment		(330,399)	(244,432)
Proceeds from disposal of plant and equipment		-	10,669
Loans to related parties		(140,000)	-
Loans repaid by related parties		124,291	25,000
Net cash used in investing activities		**(346,108)**	**(208,763)**
Cash flows from financing activities			
Proceeds from borrowings		2,812,678	-
Repayment of borrowings		(163,358)	(119,473)
Transaction costs related to loans and borrowings		(48,993)	-
Purchase of Treasury shares		(168,652)	(897,008)
Proceeds from the issue of shares		-	7,698,853
Net cash provided by financing activities		**2,431,675**	**6,682,372**
Net increase/(decrease) in cash and cash equivalents held		(3,658,518)	(900,136)
Cash and cash equivalents at the beginning of the financial year		4,560,518	5,402,909
Effect of exchange rates on cash holdings in foreign currencies		92,987	57,745
Cash and cash equivalents at end of period		**994,987**	**4,560,518**

Part 7 – Consolidated Statement of Changes in Equity

	Contributed equity $	Accumulated losses $	Equity-settled benefit $	Foreign currency translation reserve $	Other reserve $	Total $	Non-controlling interest $	Total equity $
Balance at 1 July 2015	**100,713,911**	**(95,860,688)**	**6,256,887**	**(154,840)**	**798,887**	**11,754,157**	**3,332**	**11,757,489**
Total comprehensive income for the year								
Loss for the year	-	(11,290,499)	-	-	-	(11,290,499)	(4,801)	(11,295,300)
Other comprehensive income								
Foreign currency translation reserve differences	-	-	-	(150,684)	-	(150,684)	19	(150,665)
Total comprehensive income for the year	-	(11,290,499)	-	(150,684)	-	(11,441,183)	(4,782)	(11,445,965)
Transaction with owners, in their capacity as owners								
Contributions of equity, net of transaction costs	6,678,767	-	-	-	-	6,678,767	-	6,678,767
Conversion of CSIRO loan to equity	1,833,683	-	-	-	-	1,833,683	-	1,833,683
Share-based payment expense	-	-	524,404	-	-	524,404	-	524,404
Treasury shares purchase	(897,009)	-	-	-	-	(897,009)	-	(897,009)
Total transactions with owners	**7,615,441**	**-**	**524,404**	**-**	**-**	**8,139,845**	**-**	**8,139,845**
Balance at 30 June 2016	**108,329,352**	**(107,151,187)**	**6,781,291**	**(305,524)**	**798,887**	**8,452,819**	**(1,450)**	**8,451,369**
Total comprehensive income for the year								
Loss for the year	-	(7,660,452)	-	-	-	(7,660,452)	(5,815)	(7,666,267)
Other comprehensive income								
Foreign currency translation reserve differences	-	-	-	(105,246)	-	(105,246)	(75)	(105,321)
Total comprehensive income for the year	**-**	**(7,660,452)**	**-**	**(105,246)**	**-**	**(7,765,698)**	**(5,890)**	**(7,771,588)**
Transaction with owners, in their capacity as owners								
Share-based payment expense	-	-	637,555	-	-	637,555	-	637,555
Treasury shares purchase	(168,652)	-	-	-	-	(168,652)	-	(168,652)
Total transactions with owners	**(168,652)**	**-**	**637,555**	**-**	**-**	**468,903**	**-**	**468,903**
Balance at 30 June 2017	**108,160,700**	**(114,811,639)**	**7,418,846**	**(410,770)**	**798,887**	**1,156,024**	**(7,340)**	**1,148,684**

Part 8 – Going Concern

The financial statements have been prepared on a going concern basis.

The Group incurred an operating loss after income tax for the year of $7,666,267 (2016: $11,295,300) and an operating net cash outflow of $5,744,085 (2016: $7,373,745) for the year ended 30 June 2017. Cash held at bank as at 30 June 2017 was $994,987 (30 June 2016: $4,560,518).

The financial statements have been prepared on a going concern basis, which contemplates continuity of normal activities and realisation of assets and settlement of liabilities in the normal course of business. In order for Greatcell Solar to continue as a going concern and further progress the development of its technology and intellectual property, and in particular the accelerated development of Perovskite Solar Cell (PSC) for scale up activities, additional capital will be required. Greatcell Solar has previously raised capital when required and the Directors anticipate that the company will be successful in raising the required additional capital in future.

The Directors have initiated the following strategies to secure the going concern status and have determined that these accounts should be prepared on a going concern basis as these strategies are anticipated to be successful:

(i) Capital Raising

The Company announced a Share Purchase Plan (SPP) on 28 July 2017 at an issue price of $0.18 per share. As a result of the SPP and another investment commitment, the Company successfully secured a capital raising of $5.3 million subsequent to year-end. A total of $2.7 million was contributed by shareholders in the SPP and the balance of the funds will be contributed by Tasnee, its strategic shareholder, through a US$2 million convertible note. The new SPP shares will be issued on 1 September 2017 and are expected to be quoted on 5 September 2017.

(ii) Grants

The Company has received a letter of negotiation (LON) for a $6 million grant under the Advancing Renewables Program (ARP) of the Australian Renewable Energy Agency (ARENA). The grant supports a Perovskite Solar Cell Technology - Large Area Module Development Project of two years duration with the award of the grant subject to meeting certain terms and conditions including the execution of a funding agreement. The Company also has a Department of Industry CRC-P grant of $2.5 million to which it has access to $1.9 million exclusive of its partners. The grant supports an 18 month project with a significant part of the grant funding yet to be drawn down, with grant payments subject to achieving agreed quarterly milestones.

(iii) Financing Facility

During the year, the Company established a $2.5 million Financing Facility with Commonwealth Bank, and this facility was increased to $3.3 million in August 2017. We expect that a similar facility to be in place for FY 2018, that will allow the Company to drawdown on a quarterly basis up to 90% of accrued FY 2018 Research and Development Tax Offset credits up to the credit limit of the facility.

(iv) Research and Development Tax Credit

The Company expects to receive in early October 2017 a research and development tax credit for FY 2017, estimated to be $3.9 million. This will be used to discharge the $3.3 million drawdown from the Commonwealth Bank Financing Facility, leaving the Company with an estimated $600k in cash remaining from the Tax offset credit.

In addition to the initiatives set out above, the Directors continue to look at various sources of funding support and other long term investment options to provide the working capital required to implement Greatcell Solar's Technology Development Plan, successful completion of which, the Directors believe, will create a pathway to achieve successful commercialisation and business development. Until this is achieved additional funding will continue to be required and the Board will select the most appropriate strategic investment options.

Based on the factors above, the Directors have prepared the financial report on a going concern basis. Accordingly, the financial statements do not include any adjustments relating to the recoverability or classification of recorded asset amounts or classification of liabilities that might be necessary should the company not be able to continue as a going concern.

Part 9 – Commentary on Results

Financial Review

The Company's statement of financial position finished the financial year with total net assets of $1.1 million, a decrease of $7.3 million (86%) from last year, mainly due to:

- Financing Facility Loan of $2.5m (see Part 12). Repayment of this loan is expected to occur in September 2017, when the Company receives an R&D tax offset cash rebate of $3.9 million from the ATO for the financial year ending 30 June 2017.
- Lower cash reserves of $995k compared to previous year-end of $4.6 million.

This year's results showed a substantial reduction in financial net loss after income tax by 32% to $7.7 million. Excluding the one-off item (non-cash) of impairment provision for intangible assets and goodwill of $3,669,705 from last year' results, the current year financial loss showed a comparatively similar result compared to last year of $7.6m.

The major factors affecting the current year's results were:

- Higher sales revenue by $265,082, mainly due to the recognition of a deferred income of $186k from a previously completed project.
- An increase in the R&D tax Incentive claim by $324,138.
- Share-based payment expense (non-cash) of $637,555.
- Administration and corporate expenses decreased by $536,834, mainly due to lower directors fees by $102,491 and lower corporate travel, reduced depreciation expense by $226,625 and lower legal fees by $61,524.

Net cash usage (outflows) from operating activities for 2017 financial year decreased significantly by 22.1% to $5.7 million. The net cash outflow was largely reduced with a significant increase in R&D tax rebate receipts by $552,581 which included a refund for a previous year's claim that was amended. With the R&D rebates included, the net cash usage in operating activities was $478,674 average per month compared to $614,479 per month last year.

Net cash reserves were $994,987 at financial year end.

Perovskite Solar Cell Research and Development

The Technical Advisory Board, chaired by Professor Michael Grätzel, supervised and approved a number of important quarterly technical milestones during the year. Notable were independently validated thermal cycling and UV stability milestones, which are important achievements in working towards IEC 61215 accreditation. These demonstrate inter alia that successful inorganic material sets are being introduced in order to industrialise the highly promising Perovskite Solar Cell (PSC) technology. Industrial efficiencies were also elevated to 13% for inorganic material sets which is very promising and these translate into very competitive projected panel costs ($/Watt-peak, or $/Wp) and levelised cost of electricity (LCOE).

FY2017 was essentially a story of technology scaling after significant PSC development activity in the preceding 3 years. Industry history teaches us that in scaling there is considerable technology risk and, more so, financial risk in transitioning from the laboratory to the factory ("lab to fab"). Hence, we have taken the more recent decision to break up the process by introducing the Mini-Major Area Demonstration (Mini-MAD) prototype phase.

Mini-MAD is a major risk mitigation exercise with relatively minor additional capital investment allowing us to gain invaluable scaling knowledge and experience. This has recently been introduced to the Commercialisation Schedule. Mini-MAD is working at a scale of 450mm x 650mm on glass and is vastly larger than any other panel development activity being conducted in the international R&D community. When we are wholly satisfied with the results of the Mini-MAD project we will invest and scale to 600mm x 1200mm or larger. Phase 3 of the VDL enabling Technologies Group collaboration, known as Realisation and Testing, is currently being planned in consultation with Australian industry and key academic partners, such as CSIRO.

Greatcell Solar is developing 2 substrate specific material sets or architectures, one for glass and one for metals or flexibles, the latter having inherent additional technical challenges. It is pleasing, however, that both are progressing well providing alternatives for scale-up as performance characteristics are assessed. The challenge for translation is to preserve as much laboratory efficiency as possible during scaling up, particularly as cheaper, more robust, materials are substituted, one for the other.

Developing an entirely new solar PV technology has multiple avenues of investigation beyond cell, module and panel performance. An important example is the performance testing protocols, which Greatcell Solar has been instrumental in developing. We are now testing to the more exacting Maximum Power Point Tracking (MPPT) standard. CSIRO and NREL have worked with us to also adopt this protocol and this can sometimes explain misleading academic results where a less exacting protocol is used which tends to overstate performance.

Business and Corporate Development

We continued our more recent strategy during the past 12 months of allowing the technology progress to do the talking. Without robust technology, framed in prudent financial risk management, all the hand holding in the world will not deliver progeny. This also generates fewer headlines but, hopefully, longer and more productive relationships.

The CRC-P grant of $2.5 million from the Australian Department of Industry is a strong foundation for new business opportunity. Specifically, it is focused on scale-up and commercialisation. It brings together entrepreneurs, like ourselves, the national flag bearer for R&D, CSIRO and industry, CSR Building Products/Viridian Glass. Contributions are defined by a participants' agreement with the lion's share of funding attributable to Greatcell Solar, clearly indicating the weight of capability that each partner is bringing to the table in this field.

The CSIRO relationship runs deep with a letter of intent (LOI) having also been signed during the year. The LOI was entered into to help improve and optimise research funding and focus to escalate our joint chances of success. This CRC-P project will help further fuel our ambition to apply our revolutionary PSC PV technology to large area glass. Importantly, this project dovetails into other grants, such as an application for A$6M in grant funding which was recently approved by the ARENA Board for negotiation of terms with Greatcell Solar. These activities support prototype development and can ultimately be leveraged for multiple international commercialisation opportunities.

In China we have taken small steps. On the one hand, we are cautious in protecting our IP: on the other, Chinese industry has so much to teach the world in solar manufacturing and market commitment. There is no doubt that the 3rd generation of PV technology is arousing considerable interest in China as a growing market place is failing to deliver profits commensurate with investment in the mature industry of silicon PV.

Tasnee were also visible during the year with a planned divestment of Cristal, their titanium dioxide subsidiary, to the US public-listed company, Tronox Inc. Tasnee subsequently made a clarifying statement in relation to its Greatcell Solar shareholding which sees them continuing to work strategically with us:

"Tasnee invested in Greatcell Solar in 2013 in support of its revolutionary, 3rd generation solar technology. It is currently considering ways to further develop and commercially exploit that investment interest, both in Saudi Arabia and other parts of the world. The 30% Greatcell Solar shareholding is not subject to the current sale process of its subsidiary, Cristal to Tronox of the United States."

Solliance

The Solliance collaboration made excellent progress throughout the year and delivered handsomely on its technical milestones. Industrial performance of its P-I-N architecture is at 14% with further improvement expected. This is suited for opaque substrates such as metals and flexibles and is again attracting strong commercial interest. The next 12 months will be more focused on stability testing in quest of IEC 61215 which should rapidly advance commercialisation prospects for PSC on steel. Initial underpinning durability testing has provided confidence that the core materials and cell designs possess the intrinsic stability to fulfil these requirements. The technology is particularly suited to BIPV applications, especially in geographies where the real-world irradiance is region specific and generally of lower overall intensity.

As Greatcell Solar progresses towards the commercialisation of its steel BIPV product concept, technical focus is shifting to the validation of system integrity at cell and module level. Concurrently, it is gaining an increasing capability in large area and high throughput manufacturing processes. This was demonstrated in March 2017 through the announcement of World record roll-to-roll processed cell performance levels of 12.6%. The further optimisation of processes and module designs will be a key focus in FY2018.

The combined Greatcell Solar UK and Solliance activities on P-I-N based flexible PSC devices specifically intended for BIPV applications represents the single largest effort anywhere to bring such products to market. This embodies our conviction that the massively untapped commercial rooftop PV market can best be exploited via Greatcell Solar's PSC technology platform in conjunction with low cost manufacturing processes.

Technical milestones for the coming year have been formulated to demonstrate the viability of materials, device architectures, module designs and manufacturing processes. In so doing, we intend to ensure first mover advantage in what we know has huge commercial potential. The development of key partnerships that provide routes to market for this technology will also be a key aspect of forthcoming Business Development priorities, and significant progress is already underway.

Supplementing Greatcell Solar UK resources, Solliance is staffed by 2 Greatcell Solar employees and enjoys strong support from national academic institutions, such as IMEC of Belgium and the Holst Centre in the Netherlands.

VDL Enabling Technology Group (ETG)

The VDL Group is focused on precision, high throughput engineering. It makes Mini cars for BMW and satellites for the space industry, amongst many other activities in a company that turns over in excess of €3 billion.

The VDL ETG collaboration on scale-up, prototyping and piloting is a critical piece in our technical risk management strategy.

It brings critical engineering expertise and confidence in planning, preparation and delivery for the MAD prototype project. Furthermore, it provides a framework for support and investment by strategic investors and government. This is evident in our dealings in the U.K., the EU, China, Turkey and Australia.

VDL ETG is a world leader in automated processing and will work closely with us in transitioning through pre-production to mass production.

Marketing and Promotion

At the time of writing, the rebranding exercise from Dyesol to Greatcell Solar is nearing completion. This is an immense task. It principally involves IP, IT, contractual, ASIC, ASX listing and marketing actions. The managing director, investor relations manager and head of sales are the leading executives involved, but it has touched almost all members of the Company, both at home and abroad. We are very pleased with the outcomes so far and have been advised throughout by consultants, BrandQuest.

The action to rebrand is the result of aligning more closely the Company's activities and its name and is a symbol of its transition from R&D to a commercialisation focus. Greatcell is a name that has existed within our international suite of subsidiaries since the 1990s and was originally adopted as an eponymous gesture to the technology inventor, Professor Michael Grätzel of the EPFL in Switzerland for our Swiss subsidiary.

The website, which is both an investor relations and ecommerce portal, is being refreshed and upgraded for functionality. This will improve e-commerce functionality to latest standards for international transactions and provide a better investor experience with superior access to share information and charts.

In terms of adding to the many local and international technology awards the Company has received, FY2017 saw a Top 5 placing in the Australian Financial Review (AFR) Inventium Innovation Awards. This is hotly contested by over 1,000 Australian companies and is testimony to the progress Greatcell Solar is making with commercialising its revolutionary 3rd generation PV technology.

We have recently released a new materials and equipment catalogue adopting the new branding and adding new products for sale. The feedback we received in our 2017 customer survey has also allowed us to sharpen our pricing and provided important input for our website upgrade. We expect this to fortify our pre-eminent position as the leading supplier of materials and equipment in the fields of PSC and DSC.

Elsewhere, our tweeting, blogging and investor updates means that we are keeping closely in touch with our key stakeholders.

Part 10 – Revenue and Expenses

	2017 $	2016 $
REVENUE AND OTHER INCOME		
Rendering of services	187,392	1,729
Sale of goods	1,102,232	1,022,813
Revenue from sale of goods and services	1,289,624	1,024,542
Interest received	31,290	92,165
Other income		
Government grant	302,259	853,375
Net gain on disposal of equipment	147	-
Other income	16,051	197,565
Total other income	318,457	1,050,940
EXPENSES		
Loss before income tax includes the following expenses:		
Depreciation and amortisation		
Amortisation of intangible assets	228,923	334,361
Depreciation expense	311,543	472,423
	540,466	806,784
Share-based payments		
Share based payments to company employees/directors	637,555	524,404
	637,555	524,404
Technical expenses (including R&D expenses)		
Wages and salaries	4,166,780	4,256,997
Materials	875,107	709,596
Consultants	1,667,043	1,536,996
Other overheads	1,560,772	1,455,696
	8,269,702	7,959,285
Total employee benefits expense		
Wages and salaries	4,884,174	5,160,547
Superannuation	417,261	415,546
Increase in liability for annual leave	92,429	41,254
Increase in liability for long service leave	37,797	41,340
Share based payments to company employees/directors	637,555	524,404
	6,069,216	6,183,091

Part 11 – Trade and Other Receivables

	2017 $	2016 $
Trade receivables	91,009	66,380
Loans	50,861	22,917
R & D tax rebate receivable	3,940,341	3,800,000
Interest receivable	-	3,846
Other receivables	472,958	451,303
	4,555,169	**4,344,446**

Part 12 – Borrowings

	2017 $	2016 $
Current		
Financing Facility – secured	2,500,000	-

Security details

The Company has established a $2.5 million Financing Facility with the Commonwealth bank that allows an advanced drawdown of up to 90% of accrued Research and Development Tax Offset credits. The eligible R&D tax offset cash rebate expected from the ATO for the financial year ending 30 June 2017 forms the primary security for the Facility. The financing facility incurs a line fee of 4% on the Facility Limit, and a Liquidity Fee of BBSY (Bank Bill Benchmark Rate for the Funding Period) plus 0.25% p.a. on amounts drawn down.

The Commonwealth bank has the following securities in place for this Facility:

1. General Security Interest over the following companies:
   - Greatcell Solar Ltd
   - Greatcell Solar Australia Pty Ltd
   - Greatcell Solar Industries Pty Ltd

   This charge captures all present and after acquired property within these entities.
2. Corporate guarantees are held from the subsidiary entities.

Part 13 – Intangible Assets

	2017 $	2016 $
Intellectual property and patents, at cost	3,791,610	3,791,610
Less: Accumulated amortisation	(3,035,610)	(2,806,687)
Less: Impairment Loss	(69,231)	(69,231)
	686,769	915,692
Customer contracts	528,780	528,780
Less: Accumulated amortisation	(528,780)	(528,780)
Total intangible assets	**686,769**	**915,692**
Reconciliations		
Reconciliations of the carrying amounts for each class of intangible asset are set out below:		
Intellectual property and patents		
Balance at beginning of year	915,692	1,231,154
Impairment loss	-	(69,231)
Amortisation	(228,923)	(246,231)
Balance at end of year	**686,769**	**915,692**
Customer contracts		
Balance at beginning of year	-	88,130
Amortisation	-	(88,130)
Balance at end of year	**-**	**-**
Goodwill		
Balance at beginning of year	-	3,600,474
Impairment loss	-	(3,600,474)
Balance at end of year	**-**	**-**

Intangible assets have finite useful lives. The current amortisation charges for intangible assets are included under depreciation and amortisation expense in profit or loss.

Part 14 – Notes to the Consolidated Statement of Cash Flows

	2017 $	2016 $
(a) Reconciliation of cash		
Cash at the end of the financial year as shown in the statement of cash flows is reconciled to the related items in the statement of financial position as follows:		
Cash and cash equivalents	994,987	4,560,518
(b) Reconciliation of net cash flows from operating activities to loss after income tax		
Loss after income tax	(7,666,267)	(11,295,300)
Add non-cash items		
Depreciation	311,543	472,423
Amortisation	228,923	334,361
Impairment of intangible assets	-	3,669,705
Share of losses/ (gain) of associate	3,698	(21)
Equity settled share-based payment expenses	637,555	524,404
Unrealised exchange losses	110,125	116,146
Loss on disposal of fixed assets	-	12,962
Operating loss before changes in assets and liabilities	**(6,374,423)**	**(6,165,320)**
Changes in assets and liabilities during the year:		
Increase in trade and other receivables	(210,723)	(696,432)
Decrease in other current assets	211,899	22,189
Decrease in inventories	27,603	103,249
Increase/(decrease) in trade and other payables	521,032	(641,916)
Increase in provisions	154,397	104,794
Decrease in deferred tax liability	(73,870)	(100,309)
Net cash used in operating activities	**(5,744,085)**	**(7,373,745)**

Part 15 – Earnings per Share

	2017	2016
Basic loss per ordinary share	(2.1 cents)	(3.2 cents)

The Company's potential ordinary shares are not considered dilutive due to loss incurred for the period. Accordingly basic loss per share is the same as diluted loss per share.

	No.	No.
Weighted average number of ordinary shares used as the denominator in the calculation of basic loss per share	370,460,384	357,108,158

Part 16 – Net Tangible Assets per Security

	2017	2016
Net tangible asset backing per ordinary security	0.12 Cents	2.02 Cents

Part 17 – Details of Entities Over Which Control has been Gained or Lost

Name of entity	**N/A**
Date control gained or lost	**N/A**
Contribution of the controlled entity to the profit/(loss) from ordinary activities during the period, from the date of gaining or losing control	**N/A**
Profit (loss) from ordinary activities of the controlled entity for the whole of the previous corresponding period	**N/A**

Part 18 – Contributed Equity

	2017 $	2016 $
Issued and paid-up capital		
Fully paid ordinary shares 372,953,676 (2016: 372,953,676)	108,329,352	109,226,361
Treasury shares: 2,246,877 (2016: 2,141,618)	(168,652)	(897,009)
Contributed equity	108,160,700	108,329,352

Ordinary Shares

The movements in ordinary shares throughout the year were as follows:

	Number	$
Balance at 1 July 2015	**339,033,459**	**100,713,911**
Issue of shares to CSIRO as repayment @$0.318 per share	2,717,279	864,095
Issue of shares for cash pursuant to the Company's Share Purchase Plan Offer at $0.26 per share	29,446,253	7,656,026
Issue of shortfall shares to underwriters of the Company's Share Purchase Plan Offer at $0.26 per share	1,756,685	456,738
Transaction costs of share issues	-	(464,409)
	372,953,676	**109,226,361**
Treasury shares purchase @$0.2313 average per share*	(3,878,706)	(897,009)
Treasury shares issued on exercise of performance rights @$0.2200 average per share*	1,737,088	-
Balance at 30 June 2016	**370,812,058**	**108,329,352**
863,679 Treasury shares purchase @$0.195 average per share	(863,974)	(168,652)
Issue of 758,715 Treasury shares on exercise of performance rights @$0.2490 average per share	758,715	-
Balance at 30 June 2017	**370,706,799**	**108,160,700**

* Treasury shares are shares in Greatcell Solar Limited that are held by "AET SFS Pty Ltd (previously Dyesol EST Managers Pty Ltd)" for the purpose of issuing shares under the Greatcell Solar Limited Performance Rights Plan. During the period, the Company acquired 863,974 of its own shares at a cost of $168,652 for the purpose of making awards under the Greatcell Solar Limited Employee Performance Rights Plan ("Plan") and these shares have been classified in the statement of financial position as treasury shares within equity. A total of 758,715 treasury shares have now been fully allotted to various employees upon vesting of their performance rights during the period. Shares issued to employees are on a first in first out basis.

Share Options

No options were issued or exercised during the year.

Performance Rights

The performance rights issued under the Greatcell Solar Limited Performance Rights Plan for ordinary fully paid shares outstanding as at the end of the reporting period was 7,353,211 (2016: 6,100,000).

Part 18 – Contributed Equity (continued)

The following illustrates the number of, and movements in, performance rights issued to employees and directors under the Greatcell Solar Performance Rights Plan during the year:

	2017 Number	2016 Number
Performance rights		
Performance rights exercisable	7,353,211	6,100,000
The following movements in the number of performance rights occurred during the financial period:		
Balance at the beginning of the year	6,100,000	3,994,500
Issue of performance rights to employees and directors for nil consideration	4,285,711	4,100,000
Performance rights lapsed	(2,273,785)	(257,412)
Performance rights vested	(758,715)	(1,737,088)
Balance at the end of the year	**7,353,211**	**6,100,000**

Managing Director Performance Rights

During the year the Company granted 1,280,711 performance rights to Mr Richard Caldwell in relation to the Greatcell Solar Performance Rights Plan as approved by shareholders at the 2016 AGM.

All performance rights were granted for nil consideration over unissued ordinary shares.

The vesting period is 36 months from date of grant and vesting will be subject to a market vesting condition (Absolute TSR Hurdle) and a non-market service vesting condition.

The vesting conditions applicable to the 1,280,711 performance rights issued to Mr Richard Caldwell are as follows:

Vesting Conditions

100% of the Performance Rights will be subject to a performance hurdle relating to absolute TSR over a period from grant date to 30 November 2019. The Greatcell Solar TSR will be set at 100 on the date of grant of the Performance Rights and must be equal or exceed 350 on 30 November 2019: that is, the Greatcell Solar TSR must increase by 250% over the measurement period for the Performance Rights to vest.

In addition to the performance vesting conditions above, the performance rights will only vest if there is uninterrupted employment with Greatcell Solar from grant date until vesting date.

Employee Performance Rights

During the year the Company granted the following performance rights in relation to the Greatcell Solar Performance Rights Plan:

- 3,005,000 performance rights issued to employees

All performance rights were granted for nil consideration over unissued ordinary shares.

The vesting periods are from 12 to 36 months from date of grant and vesting will be subject to a “market-based vesting condition” (TSR Relative Hurdle) and “non-market based service conditions” i.e. KPI and Service conditions.

Part 18 – Contributed Equity (continued)

Vesting Conditions

The vesting conditions applicable to the 3,005,000 performance rights issued to employees are as follows:

Tranche 1: Up to 1,051,750 of the Performance Rights will vest on 1 December 2017, determined by the assessment of individual performance against individual KPIs in the financial year 1 July 2016 to 30 June 2017.

Tranche 2: Up to 751,250 of the Performance Rights will vest on 1 December 2018, if Greatcell Solar's Total Shareholder Return outperforms the S&P/ASX Small Ordinaries Index over the measurement period 1 July 2016 to 30 June 2018 (TSR Hurdle).

Tranche 3: Up to 1,202,000 of the Performance Rights will vest on 1 December 2019 if the Service condition for this tranche is met.

In addition to the Performance Vesting Conditions above, the participant must have uninterrupted employment with Greatcell Solar from Grant Date until Vesting Date (for each Tranche) for the Performance Rights (of each Tranche) to vest (Service Condition).

Part 19 – Capital Commitments

The AU$2.5M Cooperative Research Centres Projects (CRC-P) grant received by Greatcell Solar pertains to large area perovskite photovoltaic material coating on glass substrates. This work programme is in conjunction with CSIRO and CSR Building Products / Viridian Glass and extends over a period of 18 months from 1 April 2017. Under the Funding Agreement for the project between Greatcell Solar and the Department of Industry, Innovation and Science, Greatcell Solar is committed to spend AU$2.55M on equipment.

Part 20 – Subsequent Events

1. In August 2017, an additional $800k drawdown was made from the Commonwealth bank R&D Tax offset Credit Financing Facility, bringing the total drawdown to $3.3m.
2. The Company announced a Share Purchase Plan (SPP) on 28 July 2017 at an issue price of $0.18 per share. As a result of the SPP and another investment commitment, the Company successfully secured a capital raising of $5.3 million subsequent to year-end. A total of $2.7 million was contributed by shareholders in the SPP and the balance of the funds will be contributed by Tasnee, its strategic shareholder, through a US$2 million convertible note. The new SPP shares will be issued on 1 September 2017 and are expected to be quoted on 5 September 2017.
3. In August 2017 the Company received a letter of negotiation (LON) offer for a $6 million grant under the Advancing Renewables Program (ARP) of the Australian Renewable Energy Agency (ARENA). The grant supports a Perovskite Solar Cell Technology - Large Area Module Development Project with the grant award being subject to meeting terms and conditions, including:

- Completion of all final project documents, including the ARENA Funding Agreement and Knowledge Sharing Agreement in a form and substance satisfactory to ARENA;
- A minimum of $5.0 million (excluding GST) in new capital being raised, exclusive of ARENA's funding contribution.

Part 21 – Audit Status

(Tick one)			
The accounts have been audited		The accounts have been subject to review	
The accounts are in the process of being audited or subject to review	✓	The accounts have not yet been audited or reviewed	

If the accounts have not yet been audited and are likely to contain an independent audit report that is subject to a modified opinion, emphasis of matter or other matter paragraph, a description of the modified opinion, emphasis of matter or other matter paragraph. Emphasis of matter relating to Going Concern
If the accounts have been audited and contain an independent audit report that is subject to a modified opinion, emphasis of matter or other matter paragraph, a description of the modified opinion, emphasis of matter or other matter paragraph. Not Applicable