QUARTER 1 – 2018

30 September 2017

Quarterly Report & Appendix 4C

greatcellsolar

Global leaders in hi-tech solar

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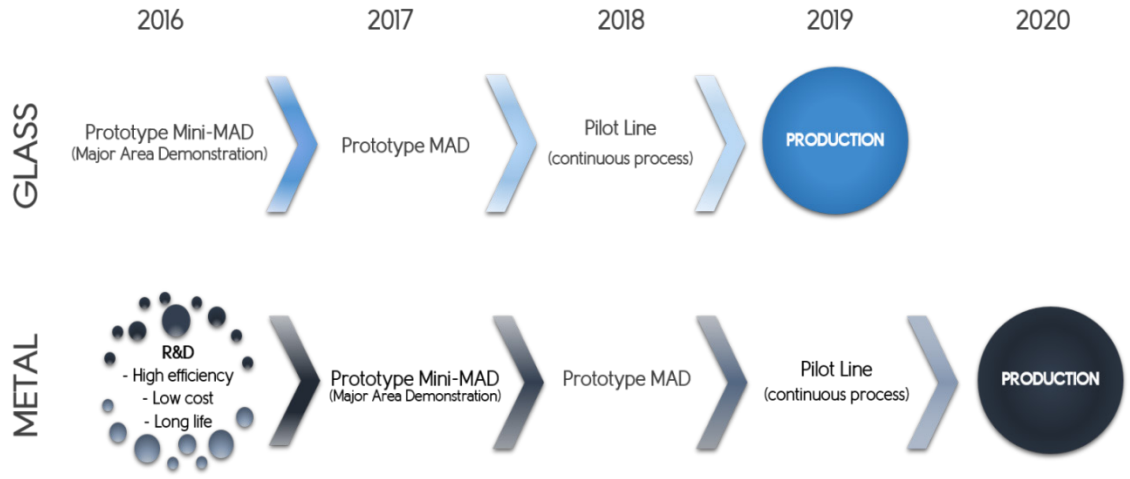
First Quarter FY 2018 – Quarterly Report & Appendix 4C

- **1QFY2018 TAB Milestone – VDL ETG Engineering and Design Study Complete**
- **$6 Million ARENA Grant Terms Settled**
- **Match Funding Conditions Satisfied with $5.1 Million Equity Raising**
- **Business Restructured in Move to Commercialisation Phase**
- **Greatcell Solar - AFR Top 50 Most Innovative Australian Companies**

COMMERCIALISATION SCHEDULE



CORPORATE AND FINANCIAL

We have been very active during the past quarter on behalf of shareholders. You will remember, that our strategy has been to fund investment activities, in particular, in a way that minimises shareholder dilution. In addition to forecast operating expenditure, we have a significant commitment to funding the capital expenditure associated with our prototyping project – the Major Area Demonstration (MAD) prototype. This we have achieved in a co-ordinated way that is a testament to the planned approach of our financing, the high profile of the PSC commercialisation project and the strong relationship that we have built with the Australian Government, both ARENA and the Department of Industry. This project has world-class interest and partners.

The $2.5 million CRC-P grant from the Department of Industry is for the development of large area coatings expertise on glass. Greatcell will enjoy the benefit of $1.9 million or the “lion’s share” in collaboration with CSIRO and CSR Building Products. In addition, the $6 million ARENA grant is also focussed on the prototype development, especially the capex component. All key aspects of the ARENA funding agreement have now been settled. Having now matched this with $5.1 million of shareholder equity, and with the leverage available under ongoing R&D rebate, we are in the strong financial position to execute our scale-up plans for MAD. In sum, this potentially unleashes approximately $15 million and will give us confidence to tackle the critical de-risking exercise with high quality facilities, equipment and personnel. There are other government funding sources also keen to participate in this bold innovation and we are excited by such a strong financial support team.

As we previously reported, Tasnee’s commitment to Greatcell has been unaffected by its sale of Cristal to Tronox, and we continue to enjoy cooperation on a number of key projects including halide modified semi-conductors. We share IP in this regard. This is continuing to demonstrate enhanced efficiencies and the UK study led by the

University of York is aiding optimisation and understanding. We are also pleased that our strategic shareholder has sought to maintain its level of ownership by its participation in the latest funding round.

As we transition from R&D to scale-up and commercialisation, we are keeping a sharp focus on operating expenses and head-count. A number of important personnel changes have recently been implemented across our international operations. Head count has been reduced by 7. Principally, this reflects the need for fewer scientists and a lower overhead requirement as we conclude an important technology evaluation phase. This reduces annual operating expenses by at least $500,000 per annum.

At the executive level our team is unchanged. However, we have also made some key changes to responsibilities to ensure our technical and business risks are well managed and our leaders well deployed. Mr Sung Il Lee has transferred from Head of Glass to Head of Business Development, Mr Paul Murray has been promoted from Senior Scientist to Global Head of R&D, and Mr Yanek Hebting has assumed responsibility for all Australian production, including glass prototyping, ably assisted by Head of Glass PV Production, Ms Nancy Jiang. The CTO, Dr Damion Milliken now reports jointly to the Managing Director and the board. His role has changed by virtue of the significant compliance obligations that are associated with grant management, including milestone reporting. He will also regularly provide technology strategy updates to the board.

On September 19, Greatcell was very pleased again to join a distinguished group of Australian companies in the Top 50 at the AFR/Inventium Innovation Awards. We placed 21st, after placing 5th last year. Notably, Greatcell was the only Australian renewable energy company in the Top 50 which is testimony to our world-class technology and our corporate resilience.

RESEARCH AND DEVELOPMENT

There has been excellent progress at the core technology level during the quarter. We continue to run 2 principal architectures as each has superior attributes suited to its respective substrate development on glass and steel. This is a privileged position to be in and we will continue to assess performance as we scale. In particular, progress in the P-I-N architecture has accelerated due to joint teamwork in our consortium at Solliance in Eindhoven. A key milestone for FY2018 will be around stabilised efficiencies at scale for this architecture – a focus which strongly distinguishes Greatcell from most international academic research.

The Mini-MAD project has now achieved key internal performance milestones. This has utilised the porous carbon design. We will push on with further performance improvements as our knowledge and capability expands with experience. There is also an accelerated durability study planned to determine whether stability standards have translated from the smaller modules of 100 cm^2 to 2,925 cm^2 – an approximate 30 times scaling. This has been accomplished with relatively low levels of additional capex.

Elsewhere, the 1QFY2018 Technical Advisory Board milestone has been achieved. This provided for the inclusion of the VDL ETG study at Phase 3 – Engineering and Design. Technologies, processes and global suppliers for MAD have now all been agreed. Costs have been reduced and process flows established. The strict risk mitigation practices by Greatcell have continued to attract positive comment from stakeholders, especially during government grant evaluation.

At EPFL, scientists have greatly improved the operational stability of perovskite solar cells by introducing cuprous thiocyanate protected by a thin layer of reduced graphene oxide. Devices lost less than 5% relative performance from a base of over 20% conversion efficiency when subjected to a crucial accelerated aging test during which they were exposed for more than 1000 hours to full sunlight at 60°C. This study was led by our post-doctoral appointment, Dr Neha Aroha.

The $50,000 ATSE Global Connections Fund Bridging Grant for our mixed perovskite work with Nanyang Technical University, Singapore was approved and all the funds received in the quarter.

MANUFACTURING AND COLLABORATIONS

Jinko Solar visited headquarters during the quarter and we continue to have positive discussions in relation to technology evaluation programmes. Many senior Jinko executives were educated in Australia at the tertiary level (mostly ANU/UNSW) and there is already a good scientific understanding developing. We believe that Jinko was pleasantly surprised with our level of commercial readiness and our progress beyond pure R&D. We are currently working together on module evaluation and expect that a successful mini-MAD IEC 61215 study will lead to more involved technology and business discussions.

There has been business development progress in Europe in relation to our flexibles or PSC on steel activities. Essentially, the progress is triggered by part resolution of problems in the troubled steel industry. Tata Steel Europe has announced a merger with Thyssen-Krupp and, more generally, profitability is returning to the building materials

sector. Improved trading conditions are translating into incoming enquiries and a greater appetite for technology risk and new product development. We consider that PSC enabled steel in a fully building integrated application is a “knock-out” business proposition and we are busy planning prototype and pilot line stages, much as we have done with glass. VDL ETG will again be a key player in managing and engineering scale-up risk.

In the interests of full disclosure, we report again on Turkey, despite some understandable reticence. Next month a major proposal will be submitted by Nesli to the Turkish government, involving several ministries, for the establishment of a JV in Turkey to commercialise our technology. The current discussions have gained more attention than at any other time recently since the disruption caused by the 2016 coup attempt. Principally, this is because there have been very major personnel changes in the government bureaucracy. The financial proposal is substantial, across multiple ministries and should attract Turkish Development Bank support.

FINANCIALS

The net operating monthly cash burn (Sec. 1.9) for 1QFY2018 averaged $944k. Net cash usage from operating and investing activities for the three months to 30 September 2017 totalled $2.8m.

At the end of 1QFY2018, cash balances totalled $1.9m.

During the quarter, Greatcell Solar’s shareholders contributed $2.7 million in a Share Purchase Plan. The Company drew down an additional $800k from its CBA R&D rebate facility that allows an advanced payment of up to 90% of accrued R&D tax offset credits.

The Company is expecting to receive significant cash receipts subsequent to quarter-end from the following sources:

- Annual R&D Rebates FY2017 of approximately $3.8m during Nov 2017;
- Ongoing quarterly drawdowns against its FY2018 CBA R&D rebate facility of approximately $800,000;
- Grant income totalling $1.8m during Q2FY2018 or grants in total of $3.75m by financial year end;
- Tasnee - $2.4 million convertible note.

About Greatcell Solar LIMITED
Greatcell Solar is a global leader in the development and commercialisation of Perovskite Solar Cell (PSC) technology – 3rd Generation photovoltaic technology that can be applied to glass, metal, polymers or cement. Greatcell Solar manufactures and supplies high performance materials and is focussed on the successful commercialisation of PSC photovoltaics. It is a publicly listed company: Australian Securities Exchange ASX (GSL) and German Open Market (D5I). Learn more at www.greatcellsolar.com and subscribe to our mailing list in English and German.

About PEROVSKITE SOLAR CELL TECHNOLOGY
Perovskite Solar Cell (PSC) technology is a photovoltaic (PV) technology based on applying low cost materials in a series of ultrathin layers encapsulated by protective sealants. Greatcell Solar’s technology has lower embodied energy in manufacture, produces stable electrical current, and has a strong competitive advantage in low light conditions relative to incumbent PV technologies. This technology can be directly integrated into the building envelope to achieve highly competitive building integrated photovoltaics (BIPV).

The key material layers include a hybrid organic-inorganic halide-based perovskite light absorber and nano-porous metal oxide of titanium oxide. Light striking the absorber promotes an electron into the excited state, followed by a rapid electron transfer and collection by the titania layer. Meanwhile, the remaining positive charge is transferred to the opposite electrode, thereby generating an electrical current.

- Ends -

Media & Investor Relations Contacts:

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Appendix 4C

Quarterly report for entities subject to Listing Rule 4.7B

Name of entity

GREATCELL SOLAR LIMITED

ABN	Quarter ended ("current quarter")
92 111 723 883	**30 SEPTEMBER 2017**

Consolidated statement of cash flows

1.	Cash flows from operating activities	Current quarter $A'000	Year to date (3 months) $A'000
1.1	Receipts from customers	308	308
1.2	Payments for		
	(a) research and development	(878)	(878)
	(b) product manufacturing and operating costs	(109)	(109)
	(c) advertising and marketing	(87)	(87)
	(d) leased assets	(146)	(146)
	(e) staff costs	(1,423)	(1,423)
	(f) administration and corporate costs	(552)	(552)
1.3	Dividends received(see note 3)	-	-
1.4	Interest received	3	3
1.5	Interest and other costs of finance paid	(23)	(23)
1.6	Income taxes paid	-	-
1.7	Government grants and tax incentives	75	75
1.8	Other (provide details if material)	-	-
1.9	**Net cash from / (used in) operating activities**	**(2,832)**	**(2,832)**

Consolidated statement of cash flows

2.	Cash flows from investing activities	Current quarter $A'000	Year to date (3 months) $A'000
2.1	Payments to acquire:		
	(a) property, plant and equipment	-	-
	(b) businesses (see item 10)	-	-
	(c) investments	-	-
	(d) intellectual property	-	-
	(e) other non-current assets	-	-
2.2	Proceeds from disposal of:		
	(a) property, plant and equipment	-	-
	(b) businesses (see item 10)	-	-
	(c) investments	-	-
	(d) intellectual property	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (loans to related parties-net)	6	6
2.6	**Net cash from / (used in) investing activities**	**6**	**6**
3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of shares	2,721	2,721
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	-	-
3.5	Proceeds from borrowings	1,300	1,300
3.6	Repayment of borrowings	(43)	(43)
3.7	Transaction costs related to loans and borrowings	(36)	(36)
3.8	Dividends paid	-	-
3.9	Other –Treasury shares purchase	(223)	(223)
3.10	**Net cash from / (used in) financing activities**	**3,719**	**3,719**

Consolidated statement of cash flows

4.	Net increase / (decrease) in cash and cash equivalents for the period	Current quarter $A'000	Year to date (3 months) $A'000
4.1	Cash and cash equivalents at beginning of quarter/year to date	995	995
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(2,832)	(2,832)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	6	6
4.4	Net cash from / (used in) financing activities (item 3.10 above)	3,719	3,719
4.5	Effect of movement in exchange rates on cash held	2	2
4.6	**Cash and cash equivalents at end of quarter**	**1,890**	**1,890**

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter $A'000	Previous quarter $A'000
5.1	Bank balances	1,890	995
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**1,890**	**995**

6.	Payments to directors of the entity and their associates	Current quarter $A'000
6.1	Aggregate amount of payments to these parties included in item 1.2	145
6.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-
6.3	Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2	
	Directors and associates remuneration	145

7.	Payments to related entities of the entity and their associates	Current quarter $A'000
7.1	Aggregate amount of payments to these parties included in item 1.2	-
7.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-
7.3	Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2	

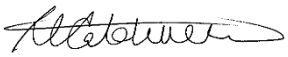
8.	**Financing facilities available** *Add notes as necessary for an understanding of the position.*	**Total facility amount at quarter end $A'000**	**Amount drawn at quarter end $A'000**
8.1	Loan facilities	3,300	3,300
8.2	Credit standby arrangements	NIL	NIL
8.3	Other (please specify)		
8.4	In January 2017, the Company established a $2.5 million Financing Facility with the CBA that allows an advanced drawdown of up to 90% of accrued Research and Development Tax Offset credits. The Company drew down a further $800k from its CBA finance facility during this quarter, increasing the total draw down to $3.3 million. 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.		

9.	**Estimated cash outflows for next quarter**	**$A'000**
9.1	Research and development	800
9.2	Product manufacturing and operating costs	80
9.3	Advertising and marketing	70
9.4	Leased assets	145
9.5	Staff costs	1,350
9.6	Administration and corporate costs	480
9.7	Other (provide details if material)	-
9.8	**Total estimated cash outflows**	**2,925**

10.	**Acquisitions and disposals of business entities (items 2.1(b) and 2.2(b) above)**	**Acquisitions**	**Disposals**
10.1	Name of entity	-	-
10.2	Place of incorporation or registration	-	-
10.3	Consideration for acquisition or disposal	-	-
10.4	Total net assets	-	-
10.5	Nature of business	-	-

COMPLIANCE STATEMENT

1. This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
2. This statement does give a true and fair view of the matters disclosed.

Sign here:  **Date:** 31 October 2017

Print name: Richard Caldwell, *Managing Director*

Notes

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.