

## 3rd Quarter FY 2014 - Quarterly Report & Appendix 4C

### Third Quarter Highlights

### **Corporate and Operational Progress**

The Dyesol Board was deeply gratified to receive strong shareholder support and approval for its proposed A\$10 million strategic investment by Tasnee at the EGM convened in early March. The dissenting vote was a meagre 2%. Tasnee has an option to invest a further A\$6 million on or before November 2014. Tasnee has indicated by all its words and actions that it intends to be a close ally in detailed plans for scale-up and global commercialisation of our ground-breaking, solid-state DSC technology. Tasnee has a representative on the Dyesol Technology Advisory Board and will shortly announce its appointment to the Dyesol main board. Further, we are also discussing opportunities for joint materials development with Cristal at its U.K. headquarters in Stallingborough. Cristal, 66% owned by Tasnee, is a world leader in the smelting and manufacture of titanium/titania and related metals, key materials in Dyesol's industrial materials set.

Also gratifying is the improved level of materials sales that Dyesol is witnessing. Dyesol has the most comprehensive catalogue of solid-state DSC materials available internationally and is adding new customers from R&D institutions and corporates daily. In particular, interest out of Japan is growing, indicating that the solid-state technology has exciting prospects.

During the 3<sup>rd</sup> Quarter we also announced a revival of DSC development interest out of Turkey. This is at an early stage, but has the potential for future agreement in relation to joint commercialisation. The A\$2.2 million contract for the supply of equipment by Dyesol-Timo (50.1% owned) to Nesli DSC to establish a prototype production facility in Turkey is expected to allow Nesli DSC to develop experience in the scale up of DSC and to provide it with demonstration product as a lead for significant investment and mass production. There is considerable interest from both industry and government in Turkey to develop and produce renewable energy. Importantly, the nature of the arrangement allows for similar arrangements to offset commercial and counterparty risk in our global glass strategy.

Elsewhere, Dyesol is assiduously deploying capital and staff in the roll-out of its 2014/15 business plan. We have recently recruited process engineers and material scientists in Australia, Switzerland and the U.K. to assist in developing industrial materials and processes that will take our technology to an industrial scale that is, essentially, grid competitive. A grid competitive solar product enjoys the benefit of lower cost, longer life, while maintaining acceptable efficiency. The quality of personnel is ever increasing as the DSC technology proliferates and matures at academic level and transfers to industry.

Kathryn Denby joins Dyesol as Manager – Investor Relations. Kathryn is local to Dyesol headquarters and has a masters degree in marketing. Her mandate is to improve stakeholder relations, including providing a conduit between our globally dispersed investor base and the Dyesol board and senior management. We are also mindful of new avenues of communication and hope to fully embrace social media to provide wider coverage, improved immediacy and greater convenience for staying in touch. While we must protect proprietary information, we recognise the importance of growing our shareholder base and reporting on key technical and commercial progress.

## Research and Development

In early April, the Technical Advisory Board (TAB) met. The 4 member board (plus independent secretary) is chaired by Professor Michael Graetzel and has expert representatives from Dyesol, Tasnee and the EPFL. So, it is with immense excitement that Dyesol marks the accomplishment of its first formal technical milestone in achieving an industrial performance of 9% efficiency. To our knowledge, this is the highest efficiency recorded using the new material set on stripcells, a surrogate for industrial validation and an important start in the process of industrial scale-up. These strip cells and tiles were manufactured at Company headquarters in Queanbeyan under the supervision of the CTO, Dr Damion Milliken. No other company is able to make these claims, which are the result of 20 years scale-up experience now being applied to ssDSC. Further increases in industrial efficiency are expected as processes and materials are optimised, bearing in mind the importance of cost and reproducibility. We believe 12+% industrial efficiency is achievable within the business plan based on the performance of available materials and the current trajectory of progress. The TAB has a formal schedule of milestones that it will report on periodically. This level of rigour and reporting is considered paramount in taking the ultimate step of significant investment for large-scale production and is considered best practice. Importantly, the current business and technology development plans remain on track and within budget.



As we believe it is plain to see, the focus is very much on technical development and scale-up — translating from the laboratory to the factory. It is with further excitement that we can also report promising results and invention in the area of blocking layers and high stability hole transport materials. Some of this novelty is the subject of a patent pending and will be the part subject of a scientific paper presented at the HOPV Conference in Lausanne in May by our scientist Nancy Jiang, who collaborates on behalf of Dyesol at NTU in Singapore. Again, here we enjoy the close oversight and collaboration of Professor Michael Graetzel.

It would also be remiss of Dyesol not to report significant progress during the last quarter on an improved understanding of industrial deposition techniques and high speed throughput – all necessary steps in technology scale-up.

## Manufacturing Collaborations

While quiet on the international front, there has been a new development locally. Discussions are currently underway with a large Australian materials company that could play an important role in our endeavour to establish a manufacturing presence in Australia. The focus would be both the Australian market and Asian export. While not critical in our discussions with government, this strengthens our vision and determination to have technology manufactured and commercialised locally which we hope will translate into increased financial support and job creation in Australia. Of course, the May budget will be of great interest as, in our opinion, anticipated spending cuts require some offset to help stimulate the creation of new, value-added industries. Certainly, solar must be at or near the head of the queue as growth trends in demand are again strongly positive.

#### **Financials**

The third quarter net operating monthly cash flows (Sec 1.8) showed an average gross burn rate of \$734k. Total operating and investing net cash burn for the year to date was \$4.7m (Sec.1.14) including the receipt for the FY2013 R&D Tax Incentive rebate of \$2.8m.

During the quarter, the Company received A\$10m cash on issue of 55,555,556 Dyesol shares at 18 cents per share in respect of Tasnee's exercise of its Subscription Right of its first tranche strategic investment. Following the issue of the first tranche, Tasnee holds (and has a relevant interest in) a total of 80,254,351 Dyesol shares and the voting power of Tasnee and its associates in Dyesol is 26.5%.

Cash balances at the end of the quarter totalled A\$10.3m.

### About DYESOL LIMITED

Dyesol is a renewable energy supplier and leader in Solid State Dye Solar Cell (ssDSC) technology – 3<sup>rd</sup> Generation photovoltaic technology that can be applied to glass, metal, polymers or cement. Dyesol manufactures and supplies high performance materials and is focussed on the successful commercialisation of ssDSC photovoltaics. It is a publicly listed company: Australian Securities Exchange ASX (<u>DYE</u>), German Open Market (<u>DS</u>), and the USA's OTCQX market (<u>DYSOY</u>). Learn more at <a href="https://www.dyesol.com">www.dyesol.com</a> and subscribe to our mailing list in English and German.

### About DYE SOLAR CELL TECHNOLOGY

Solid State Dye Solar Cell (ssDSC) technology is a photovoltaic technology based on applying low cost materials in a series of ultrathin layers encapsulated by protective sealants. Dyesol's technology has lower embodied energy in manufacture, produces stable electrical current, and has a strong competitive advantage in low light conditions relative to 1<sup>st</sup> and 2<sup>nd</sup> Generation PV technologies. This technology can be directly integrated into the building envelope to achieve highly competitive building integrated photovoltaics.

The key material layers include a hybrid organic-inorganic halide-based perovskite light absorber, a nano-porous metal oxide of titanium oxide, and an organic semiconductor. 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 organic semiconductor, thereby generating an electrical current.

- Ends -

### **Media & Investor Relations Contacts:**

Dyesol Headquarters Kathryn Denby, Investor Relations Tel: +61 (0)2 6299 1592, kdenby@dyesol.com

Australia Viv Hardy, Callidus PR Tel: +61(0)2 9283 4113 or +61 (0)411 208 951, viv@calliduspr.com
Germany & Europe Eva Reuter, DR Reuter Investor Relations Tel: +49 177 605 8804, e.reuter@dr-reuter.eu



Rule 4.7B

# Appendix 4C

Quarterly report for entities admitted on the basis of commitments

Introduced 31/03/00 Amended 30/09/01, 24/10/05, 17/12/10

Name of entity

## **DYESOL LIMITED**

ABN

Quarter ended ("current quarter")

92 111 723 883

31 MARCH 2014

## **Consolidated statement of cash flows**

	Cons	solidated statement of cash flows		
	Cash flo	ows related to operating activities	Jan14 to Mar14 Quarter \$A'000	Year to date (9 months) \$A'000
00	1.1	Receipts from customers	208	508
	1.2	Payments for		
		(a) staff costs	(1,067)	(3,369)
		(b) advertising and marketing	(54)	(202)
	))	(c) research & development	(229)	(529)
		(d) leased assets	(171)	(516)
		(e) other working capital	(935)	(2,981)
	1.3	Dividends received	-	-
7	1.4	Interest and other items of a similar nature received	45	91
	1.5	Interest and other costs of finance paid	-	-
	1.6	Income taxes received/(paid) (R&D Tax rebate)	-	2,841
	1.7	Other	-	-
		Net operating cash flows	(2,203)	(4,157)

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		Jan14 to Mar14 Quarter \$A'000	Year to date (9 months) \$A'000
1.8	Net operating cash flows (carried forward)	(2,203)	(4,157)
	Cash flows related to investing activities		
1.9	Payment for acquisition of:		
	(a) businesses (item 5)	-	-
J))	(b) equity investments	-	-
	(c) intellectual property	(00)	-
	(d) physical non-current assets	(23)	(27)
	(e) other non-current assets	-	-
1.10	Proceeds from disposal of:		
	(a) businesses (item 5)	-	-
P	(b) equity investments	-	-
	(c) intellectual property	-	-
2	<ul><li>(d) physical non-current assets</li><li>(e) other non-current assets</li></ul>	-	-
	(e) Other horr-current assets		-
1.11	Loans to other entities	-	-
1.12	Loans repaid by other entities	-	-
1.13	Other (payment for product development cost)	(146)	(519)
	Net investing cash flows	(169)	(546)
1.14	Total operating and investing cash flows	(2,372)	(4,703)
	Cash flows related to financing activities		
1.15	Proceeds from issues of shares, options, etc (net)	10,000	10,000
1.16	Proceeds from sale of forfeited shares	-	-
1.17	Proceeds from borrowings	-	-
1.18	Repayment of borrowings	-	-
1.19	Dividends paid	-	-
1.20	Other (Treasury shares purchased)	-	(112)
	Net financing cash flows	10,000	9,888
	Net increase/ (decrease) in cash held	7,628	5,185
1.21	Cash at beginning of quarter/year to date	2,676	5,102
1.22	Exchange rate adjustments to item 1.21	(33)	(16)
1.23	Cash at end of quarter	10,271	10,271

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# Payments to directors of the entity and associates of the directors Payments to related entities of the entity and associates of the related entities

コ カ		Current quarter \$A'000
1.24	Aggregate amount of payments to the parties included in item 1.2	166
1.25	Aggregate amount of loans to the parties included in item 1.11	-
1.26	Explanation necessary for an understanding of the transactions	
	<u>1.24</u>	
	Directors and associates remuneration	166
Non		166
Non	Directors and associates remuneration	

Non-cash financing and investing activities		
2.1	Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows	
2.2	Details of outlays made by other entities to establish or increase their share in businesses in which the reporting entity has an interest	

# Financing facilities available

Add notes as necessary for an understanding of the position.

1			Amount available \$A'000	Amount used \$A'000
	3.1	Loan facilities	NIL	NIL
	3.2	Credit standby arrangements	NIL	NIL

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Date: 30 April 2014



## **Reconciliation of cash**

	Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.		Current quarter \$A'000	Previous quarter \$A'000
Ŧ	4.1	Cash on hand and at bank	5,071	476
	4.2	Deposits at call	5,200	2,200
	4.3	Bank overdraft	-	-
7	4.4	Other (provide details)	-	-
1	9	Total: cash at end of quarter (item 1.23)	10,271	2,676

## Acquisitions and disposals of business entities

2)		Acquisitions (Item 1.9(a))	Disposals (Item 1.10(a))
5.1	Name of entity		
5.2	Place of incorporation or registration		
5.3	Consideration for acquisition or disposal		
5.4	Total net assets		
5.5	Nature of business		

# Compliance statement

- This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act (except to the extent that information is not required because of note 2) or other standards acceptable to ASX.
- This statement does give a true and fair view of the matters disclosed.

Sign here:

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Print name:

Richard Caldwell, Executive Chairman

## Notes

- 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 wanting to disclose additional information is encouraged to do so, in a note or notes attached to this
  report.
- The definitions in, and provisions of, AASB 107: Statement of Cash Flows apply to this report except for any additional disclosure requirements requested by AASB 107 that are not already itemised in this report.
- 3. **Accounting Standards.** ASX will accept, for example, the use of International Financial Reporting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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