June 2013 ASIAN ROAD SHOW

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Forward Looking Statements



This presentation includes forward-looking statements that are subject to many risks and uncertainties. These forward-looking statements, such as statements about Dyesol's short-term and long-term growth strategies, can sometimes be identified by use of terms such as "intend," "expect," "plan," "estimate," "future," "strive," and similar words. These statements involve many risks and uncertainties that may cause actual results to differ from what may be expressed or implied in these statements. These risks are discussed in Dyesol's Securities and Exchange Commission filings and reports, including the risks identified under the section captioned "Risk Factors" in its preliminary prospectus relating to its initial public offering filed pursuant to Rule 424(b) under the Securities Act of 1933, with the Securities and Exchange Commission. Dyesol disclaims any obligation to update contained information in these forward-looking statements whether as a result of new information, future events, or otherwise.









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1. Company Description



Company Background

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Dyesol is a solar materials and technology company, engaged in the commercialisation of dye solar cells (DSC) for building and electronics applications:



- Strong IP position with patented materials, equipment and processes for DSC manufacturing
- One of three original DSC technology licensors; first to focus on steel roof, glass façade and window applications
- Founded in 2004, headquartered in New South Wales, Australia and ASX listed in 2005
- 60+ employees and over \$120 million invested.

Equity SnapshotTicker ASX/Germany/OTCQXDYE/D5I/DYSOYPrice1A\$0.4512 Month RangeA\$0.10 - A\$0.58Shares Outstanding(fully diluted)221MMarket Capitalization1A\$100M

¹As of June, 2013







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Dyesol Company Timeline





Dyesol Awards and Recognition



Winner Inaugural Innovation Award Clean Energy Council Industry Awards 2012





Dyesol Highly Commended – Most Innovative Manufacturer Category Manufacturer Monthly's Endeavour Awards 2012

Father of DSC, Prof Michael Graetzel Awarded 2012 Albert Einstein World Award of ScienceInterdisciplinary Committee of the World Cultural Council2012

New Energy Pioneer Winner Bloomberg New Energy Finance Summit 2010

DSC Inventor, Prof. Michael Graetzel, Wins The Millennium Technology Prize Technology Academy of Finland 2010

- Winner Small to Medium Manufactures Award ACT Chief Minister's Export Awards 2009
- Small Company of the Year Award Ethical Investor 2009



WORLD CULTURAL COUNCIL





Dyesol IP Powerhouse





ÉCOLE POLYTECHNIQUE

Dyesol Credentials:

Dyesol benefits from over 700 person-years in DSC technology and is one of only a handful of 'Pioneer Licensees' from Switzerland's École Polytechnique Fédéral de Lausanne (EPFL) where the original Dye Solar Cell effect was invented by renowned photo-chemist, and Dyesol Technology Advisory Board Chairman, Professor Michael Graetzel.

In addition to having full access to commercialise advances from ongoing EPFL research and patents, Dyesol has our own suite of patents – the combination puts Dyesol in a very strong industry-leadership position and our customers in a strong position to benefit from advance from both organisations.

As a measure of Dyesol's activity and success, the Company has registered or has been granted protection in some 13 jurisdictions spread across 5 patent families in the past year alone covering the following technological areas:

- ✓ Scale-up from cells and modules to entire DSC panels;
- ✓ Miniaturised DSC devices, e.g. for powering remote sensors;
- ✓ Multifunctional means for electrical device contacts;
- Electrochemical surface modification for enhanced device performance and higher device voltage in particular;
- ✓ Substrate preparation for reliable sealing.

A number of these patents are key enablers to some of the device manufacturing equipment sold by Dyesol.

2. Business Model



Capital Light Business Model

Dyesol has a capital efficient, or "capital-light" business model: (1) own technology IP, (2) licenses to manufacturing partners, and (3) typically has exclusive materials supply agreements in place:

IP Portfolio:

- Portfolio of over 20 interlocking patents and registered designs covering equipment, processes and key materials
- Registered in major markets: USA, Japan, EU; selectively in Korea, India, China, Singapore, Australia and South Africa

Global partnering with focus on 4 market sectors:

- Steel BIPV
- Glass / window BIPV
- Electronic applications
- Built environment Indoors or BAIPV



Products & Services

- DSC Materials (~30%+ margin): dye, semiconductor pastes, electrolyte, conductors & sealants
- DSC product components
- DSC prototyping and testing equipment
- Collaborative and contract R&D
- · Consulting and training services
- Technology upgrades



Building Integrated Photovoltaic (BIPV) Market



- BIPV is solar cells embedded into building materials used to replace conventional building materials in parts of the building envelope such as the roof, skylights, or facades
- In addition to new construction, existing buildings may be retrofitted with BIPV modules
- Provides access to multi-billion dollar target markets







DSC Product Applications



DSC enabled commercial window.



www.dyesol.com

Dye Solar Cell Technology:

Low light Dappled light Dawn Dusk Polluted Skies Cloudy Days Integrates into building products Low embodied energy Environmentally



energy DSC enabled remote, Environmentally dappled-light charging device. friendly



Dye Solar Cell Photovoltaic Technology





Top: DSC enabled atrium. Above: DSC enabled portable tents (concept design).

Left: DSC enabled steel roofing.

3. Key Strategic Partners & Projects



	Partner	Market	Region	Details					
	TATA STEEL	Steel / wall & roof applications	UK/Global	 Large global steel producer and industrial conglomerate e.g. power, auto, steel, water, construction Co-develop and commercialise DSC on coil-coated steel £12+ million joint-programme under a Welsh Assembly Government (WAG) contract Up-scaling work continues 					
	MERCK Materials Germany/ Supply Global		Germany/ Global	 World leader in development and manufacture of ionic liquids and electrolytes Co-develop electrolytes for use in DSC 					
FSON E	PILKINGTON Smart Glass Solutions	View and non-view Façade glass applications	US/Global	 Part of NSG Group, world's 2nd largest manufacturers of glass and glazing products for building, automotive and specialty glass markets Commercialise DSC on view and non-view glass, utilising Pilkington's TEC series of transparent conductive oxide (TCO) coated float glass and Dyesol's DSC materials Ohio State Third Frontier Fund – US\$ 1 million development grant 					
	Singapore Aerospace Manufacturing	Engineering and process solutions	Singapore/ Global	 Co-develop proto-type manufacturing facilities for use by Dyesol applications partners Owned by Singapore Government Instrumental in controlling DSC "know-how" 					
		Glass tiles	Korea/ Global	 Dyesol-Timo is 50/50 JV for development and commercialisation of DSC in Korea Timo Technologies is a listed electronics supplier to large MNCs such as LG 					
	SIGMA-ALDRICH	R&D Materials Supplier	Global	 Leading supplier of chemicals to academic and corporate researchers Dyesol materials included in the catalogue 					

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3. Key Research Partners





ÉCOLE POLYTECHNIQUE FÉDÉRALE DE LAUSANNE

DSC technology was invented at the Institute of Physical Chemistry, of the Swiss Federal Institute of Technology in Lausanne, Switzerland in 1988 by Brian O'Regan and Michael Graetzel.

Their paper '<u>A low-cost, high-efficiency solar cell</u> <u>based on dye-sensitized colloidal TiO₂ films</u>' published in 1991 in the journal, *Nature*, was the

catalyst that spawned a whole new industry and a whole new way of looking at harvesting electrical power from sunlight.

Since that time Professor Graetzel, now at Switzerland's École Polytechnique Fédérale de Lausanne (EPFL), has remained strongly focused on DSC technology, received numerous awards and accolades in relation to the invention of DSC, and maintained close links to Dyesol as Chairman of Dyesol's Technical Advisory Board.



- Singapore's leading research-intensive university – also has close ties with DSC inventor Graetzel
- Formal Research Collaboration Agreement signed with Dyesol in early 2013
- The two-year agreement will see a sharing of resources to create scalable and commercially feasible solid state Dye Solar Cell technology (DSC) technology, a lowcost renewable energy technology that operates efficiently in variable and low-light conditions.
- Under the agreement, NTU and Dyesol will share Intellectual Property (IP) and Dyesol will have the opportunity to take out commercialisation rights for the new IP granted under this agreement.

3. Key Strategic Partners & Projects



Façades / Glazing



- JV with Pilkington
- Construction glass market for BIPV products to be worth \$4.2 billion according to NanoMarkets 2012 report
- Initial Products DSC based spandrel and view glass
- Addressable market over 840 million m² p.a.

Metal Construction



- Partnered with Tata Steel
- BIPV Coated steel roofing products will reach \$2.5 billion by 2015 according to NanoMarkets 2012
- Initial Products DSC coated steel roofing & wall cladding
- Addressable market over 200 million m² p.a.

4. DSC – Competitive Status



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4. DSC – Competitive Status



or personal use only 0.25 0.20 Solar Irradiance (kW/m²) 0.15 0.10 0.05



5. Game Changer – Solid State DSC



Solar competitiveness measured by the "Golden Triangle": Cost, Efficiency & Life

Dyesol and its R&D partner, EPFL, leading the world in technology breakthroughs in Solid State e.g. 14.1% efficiency achieved in May 2013

High efficiency, low cost and 20 yearplus life opens up the "holy grail" of solar – Building Integrated Photovoltaics

Material set of (1) Titania scaffold, (2) Perovskite sensitizer, and (3) Spiro electrolyte is cheap, versatile, high performance

- Problems of thermal expansion and corrosion associated with traditional liquid material sets virtually eliminated
- Nano, monolithic layering also provides transparency and suits scale-up for mass production e.g. continuous, coil-coated steel
- Gen 1 (mono & poly crystalline silicon) and Gen 2 (CIGS, A-Si & Cadmium Telluride) cannot compete on these terms, especially the challenges of sub-optimal light conditions "north of the Alps"



6. Value Proposition



P & Technical Know-How One of three original core

One of three original core patent licensee of EPFL

20 granted or pending patents (cell design & manufacture, materials & equipment), providing significant barriers to market entry

Total understanding DSC technology system

\$120+ million and 800+ man years R&D investment

Technology Road Map capable of delivering grid competitive industrial efficiencies of 10% - 12%





Market Expertise and Partners

- Continuing access to non dilutive R&D funding e.g. Australian Government, Welsh Government, OTFF etc.
- MNC glass (Pilkington) & steel (Tata) application commercialisation partners providing product development expertise and global routes to multi-billion dollar BIPV market
- Major collaboration and joint venture agreements supported by exclusive materials supply contracts in perpetuity
- Global R&D network including best-in-class government agencies and corporations

6. Value Proposition



Corporate Brand & Leadership

- Global leader in DSC
- Founder and principal sponsor of annual DSC-IC conference
- Financially independent and entrepreneurial
- Professor Michael Graetzel head of Technical Advisory Committee
- Courted by leading global industrials for further application development e.g. auto and electronics



7. Independent Market Report



Dye Sensitized Cells: Materials, Applications and Opportunities – 2011 In Million Square Meters

	2012	2013	2014	2015	2016	2017	2018
Off Grid	0.20	0.70	1.20	2.60	3.30	3.70	3.70
BIPV Glass	0.00	0.08	0.38	1.08	2.26	4.72	8.43
BIPV Roofing/Siding	0.00	0.05	0.60	2.00	6.00	10.00	15.00

Building-Integrated Photovoltaics Markets--2011 In Million Square Meters

	2012	2013	2014	2015	2016	2017	2018
BIPV Glass	26.808	42.72	66.336	107.988	176.712	290.652	430.692
BIPV Roofing/Siding	61.944	94.14	161.244	286.428	512.364	900.504	1432.344

Source: NanoMarkets, LC

7. Independent Market Reports



DELSONAL

According to industry analyst, NanoMarkets, in their report Building-Integrated Photovoltaics Market – 2012:

Global BIPV market is set to grow by over US \$5 billion by 2015

Currently worth just US\$2.1 billion, the market will increase to US\$7.5 billion by 2015, the industry analysts predict.

the growth in BIPV market share will mostly be at the expense of conventional solar panels.

63% of total BIPV revenues are expected to come from new builds.

- a breakdown of the BIPV market shows that by 2015 revenues from BIPV roofing products will be worth US\$2.5 billion
- revenues generated from BIPV glass products are projected to be worth US\$4.2 billion. But much of this figure will be due to the high-cost of the architectural glass that underpins BIPV glass.
- Setting aside the high prices, there appears to be good opportunities in the glass sector for monolithically integrating PV and building fabric functionalities. As a result, US\$375 million will be generated by fully-integrated BIPV glass products by 2015.
- Factors driving the growth in the industry include a move towards **zero-energy buildings** and as end users begin to take note of the better economics and aesthetics of BIPV.

8. Recent Developments



- Recapitalisation of Dyesol with strategic investment from National Industrialisation Company of Saudi Arabia (\$5B Tasnee) – option to acquire 34% of Dyesol @ \$0.166/\$0.18 for A\$20 million. Cristal Global, a 100% subsidiary of Tasnee, has partnered with Dyesol in world-class TiO2 development since 2009
- Investments leaders, such as Dow Chemical & First Solar, have kick-started recovery of solar sector investment, focus on BIPV
- EPFL & Dyesol announce game changing developments in durability and solid state DSC technology



9. Near - Term Milestones





Rapid upgrades to solid state efficiency – trajectory of recent R&D makes 20%+ achievable in near to medium term

Tasnee strategic investment option and 6 month exclusivity/due diligence period expires in Mid-September 2013

- Announcement of next steps in commercialisation relationship with Tata Steel Europe due end July 2013
- Current share price deep discount to historical high of \$2.35 Commercial In Confidence Copyright Dyesol 2013

- Next round of Ohio State Third Frontier Fund for Pilkington Glass programme due in End-July 2013
- Outcomes of ARENA and Clean Energy Finance Corporation funding applications due between Jul – Dec 2013
- Possible index inclusion in ASX 300 current, fully expanded market capitalisation circa A\$150 million

Closing Remarks



Conclusion

Recap

Thank you

For Further Information:

www.dyesol.com

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