



ASX / Media announcement

BLUGLASS LTD BUSINESS UPDATE – MARCH 2008

BLUGLASS ACHIEVES TECHNICAL AND COMMERCIALISATION TARGETS FOR ITS UNIQUE LOW COST LED LIGHTING TECHNOLOGY

- **Commercial Reactor** – *the proprietary BluGlass RPCVD commercial scale reactor is assembled and performing planned “burn-in” testing. Commissioning is on schedule for completion by end of March 2008 in the EMF assembly plant in Ireland. The reactor will be installed in Sydney by mid-May and will be initially used for low temperature nitride process optimization and manufacturing demonstration.*
- **Technology Development** – *in a continuing effort, BluGlass has developed further proprietary RPCVD processes required for the fabrication of high brightness LEDs on sapphire and glass substrates.*
- **Research Reactor** – Interest from research facilities in the research reactor is strong. BluGlass is on track to achieve its first sales of the research reactor in 2008.

Sydney 18 March 2008: BluGlass limited (ASX:BLG) announced today steady progress towards meeting all milestones in the key areas of commercialisation of its revolutionary, low-cost manufacturing technology for the next generation of Gallium Nitride (GaN) semi-conductor material for use in light emitting diodes (LEDs).

BluGlass’ technology team have made several major steps forward in the construction of the commercial reactor. Key elements of the reactor function are being tested prior to transfer to BluGlass dedicated facility in Australia. A major GaN industry advance pioneered by BluGlass, is the internal RPCVD process which enables coupling to high throughput wafer automation and handling equipment used as standard in the silicon micro-electronics industry. This unique capability allows yield to be further improved compared to conventional GaN growth technologies. A standard Brooks robotic wafer transfer system is interfaced to the RPCVD module allowing the RPCVD process to run with high throughput, low particulate and impurity contamination and thus with potentially high efficiency and yield.

Once the initial commissioning and acceptance tests of the commercial reactor are completed in Cork, Ireland, it will then be decommissioned and shipped to our new facility in Silverwater, Australia.



Manufacturing Demonstration Facility

Construction of the Manufacturing Demonstration Facility is proceeding well, with the second phase of construction well on track. The facility will be ready for the arrival of the commercial reactor from Ireland, this means the reactor can be rapidly re-assembled and commissioned in preparation for process demonstrations. At this stage we anticipate the facility will be demonstration ready in Q2 2008.

Technology Development

With the achievement of several key milestones, including the completion of the clean room and the installation of several key pieces of process technology, BluGlass has acquired key device fabrication equipment to manufacture prototype GaN based devices such as LEDs internally. Previously, external University facilities had been used by BluGlass staff. Chief Technology Officer, Dr Scott Butcher, says the new in-house facilities will ensure a faster device turnover allowing BluGlass technical staff to rapidly analyse device performance and thus optimize process and device fabrication.

Recent proprietary modifications to the research reactor at BluGlass have also confirmed the anticipated nitride layer growth rates used for the RPCVD cost-of-ownership (COO) model. Film growth rates were found by measuring film thickness post-growth by interferometry. The growth rates obtained were the same as those used in the COO study, but only previously achieved in an older generation system for a much smaller growth area. The new work confirms the proprietary RPCVD technique can be scaled to large substrate and or film deposition areas while maintaining film growth rates and uniformity. BluGlass' CTO Dr Scott Butcher reports that the film thickness variation was less than 1% over the larger area. This is a significant step in the scalability of the technique, and has provided BluGlass with the proof-of-concept data to scale the growth rate to the larger areas expected for the commercial system. The RPCVD method potentially offers unique material properties and applications not attainable otherwise, for example, direct deposition of high quality nitride compound semiconductors on glass.

Research Reactor

Following the successful visit to the UK and Europe significant interest has been expressed by several high profile research facilities in BluGlass' research reactor. Given the level interest BluGlass is confident it will achieve the important milestone of the first research reactor sales in 2008

About BluGlass:

BluGlass is commercialising a unique manufacturing technology to reduce the cost of Gallium Nitride (GaN) semi-conductor wafers. GaN wafers are a key component of high brightness Light Emitting Diodes (LEDs) for which there is a US\$4 billion global market, expected to grow to US\$12 billion by 2012. Applications include; use in mobile appliances, signs/displays, automotive, signals and illumination. BluGlass' breakthrough in low cost manufacture of GaN could allow LEDs into mass markets such as the US\$100 billion general lighting market currently dominated by incandescent and fluorescent lights.

Contact Information:

Giles Bourne, Interim Chief Executive Officer & Commercial Manager, 02 9334 2300
Alan Deans, Last Word Corporate Communications 0427 490 992