Media Release

CRITICAL COMMERCIALISATION BREAKTHROUGHS BY GREEN LIGHTING INNOVATOR BLUGLASS LTD

12 November 2007

Energy efficient lighting company BluGlass Ltd today announced it had taken three critical steps in the commercialisation of its unique LED (light emitting diode) technology, setting the company on track to demonstrate commercial production of its technology in 2008.

- A specialist team from BluGlass and the Space Plasma, Power and Propulsion Group (SP3) of The Australian National University in Canberra (ANU) have achieved a major breakthrough with the successful testing of a key component of the company's next generation, prototype production-scale equipment. The test involved the use of a new plasma source design that demonstrated uniform large area plasma generation.

- BluGlass has also entered into provisional agreement with Lakehead University in Ontario, Canada, to purchase BluGlass's first research scale reactor. The deal will involve ongoing collaboration between the two organisations for research and development of new LED and related technologies.

- BluGlass has formed a Technical Advisory Committee of eminent scientists and technologists to help advance commercialisation of its LED production process and to access complimentary technologies. The four-member Committee will provide independent advice to the company's board.

These advances for BluGlass's commercialisation program come just weeks after the company was awarded a $5 million Federal Government grant to progress its technology. This is the second government grant that has been awarded to BluGlass and the first payment from the latest grant has been made.

BluGlass is commercialising a unique technology to reduce the cost of manufacturing gallium nitride (GaN) semi-conductor wafers, a key component of LED's.

The plasma source prototype breakthrough involves a new design for the uniform generation of active nitrogen species, and is a core element of BluGlass's Australian developed and patented intellectual property, enhancing the company's objective to deliver its first sales within the next 12 months.

"We have now cleared a significant hurdle in commercialising our technology, which promises to make LED lighting cheaper and increase its usage in the global $US100 billion general lighting market," said BluGlass Chief Executive Officer Mr David Jordan. "It gives us confidence that we will meet the planned commissioning of the first commercial-scale prototype of our technology, scheduled to happen towards the end of the first quarter of 2008."

The test was conducted by BluGlass and a specialist plasma physics team from The ANU which came together early this year to assist with the commercialisation phase. Mr Jordan said that a new type of plasma excitation source jointly developed between BluGlass and The ANU had demonstrated uniformly distributed plasma over a wider area than before. This should allow the use of larger production chambers, which could further reduce the cost of making LED chips. The new equipment will be incorporated in the next generation chamber to be installed on a prototype production reactor that is being built in Ireland by BluGlass's manufacturing partner, EMF Semiconductor Systems Ltd.

"Our technical team and the experts from The ANU under Professor Rod Boswell are pushing this development hard." Mr Jordan said. "It is extremely encouraging to see that they have already had this magnitude of success, making the breakthrough at the first attempt."

The deal with Lakehead University in Canada involves the supply of a research scale reactor, to be purchased by the university and planned for delivery around mid-2008. It is intended that BluGlass and the university will collaborate to develop new forms of semiconductor substrates and materials based on BluGlass' Remote Plasma Chemical Vapor Deposition technology.

Lakehead's Associate Professor Dimiter Alexandrov said: "The RPCVD technique developed by BluGlass is unique world-wide. Lakehead University is very excited about collaborating with BluGlass and establishing a joint research facility to further develop this breakthrough semi-conductor technology.

"Lakehead University aims to work with BluGlass to develop multi-layer semiconductors of high quality based on gallium nitride, indium nitride and on related nitride alloys. Our work could have applications in semiconductor lasers, LED's, solar cells, sensors and field-effect transistors."

Also today, BluGlass has announced that its Technical Advisory Committee will be comprised of eminent scientists, including Professor Chennupati Jagadish, a globally renowned expert in semiconductor optoelectronics and nanotechnology at The Australian National University; Dr Gia Parish, from the University of Western Australia's School of Electrical, Electronic and Computer Engineering; Professor Trevor Tansley, an inventor of BluGlass's technology; and Associate Professor Matthew Phillips from the University of Technology Sydney. Dr Petar Atanackovic was an invited expert at the initial Advisory Committee meeting.

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BluGlass Ltd background:

- BluGlass evolved from 10 years of research at Sydney's Macquarie University and was listed on the ASX in September 2006. Macquarie University's commercial arm, Macquarie Access, is a shareholder.
- BluGlass is commercialising a unique technology to reduce the cost of a key component of LED's gallium nitride (GaN) semi-conductor wafers.

- BluGlass's process for producing GaN offers substantial competitive advantages over current commercial processes. The process enables GaN to be produced at temperatures significantly lower than those used currently, without the use of ammonia, allowing the GaN industry to move from deposition on sapphire and silicon carbide wafers to deposition on cheaper materials such as glass and silicon. Furthermore, the new process replaces expensive and toxic ammonia with nitrogen. BluGlass technology can also increase the wafer scale beyond the present size limits for sapphire and silicon carbide, offering substantial improvements in production efficiency over current processes.
- An independent analysis of BluGlass's technology found that GaN cost savings of more than 48% could be achieved at the wafer level and 10% at the LED device level, when compared with the main semiconductor production systems currently in use around the world.
- Current-day incandescent and fluorescent lights are based on relatively inefficient, century-old technologies, whereas LED lights use up to 80% less energy and last up to 100 times longer, with substantial economic and environmental benefits.
- BluGlass recently attained a significant global milestone in GaN research by demonstrating the world's first blue LED on glass. This GaN-on-glass technology offers the potential for low-cost manufacture of GaN devices over large area glass substrates, and will assist the GaN industry in moving away from the expensive 2-inch sapphire substrates now standard.
- The company aims top take advantage of this development by demonstrating that the technology can be applied at a commercial scale to manufacture low cost, high brightness LEDs and other GaN devices. Once this has been fully demonstrated, BluGlass expects to generate revenues through establishment of partnership agreements and technology licensing.