

Canada

## News Release

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### Canadian Company Announces Revolutionary Design to Build a Better Light Bulb

Could lead to a 20-year bulb that uses 90 per cent less energy than today's  
standard light bulbs

**OTTAWA, September 27, 2006** – A worldwide quest to build a better light bulb took a big leap forward with the announcement that a new Canadian technology is under development. This innovation could lead to a light bulb that uses 90 per cent less energy than traditional incandescent light bulbs, and lasts 20 years, Group IV Semiconductor Inc. (Group IV), Sustainable Development Technology Canada (SDTC) and EnCana Corporation announced today.

Group IV's unique approach is to pass an electrical current through silicon in order to produce light. Because almost all of the energy is converted to light instead of heat, Group IV's solution is designed to consume one tenth the energy and last years longer than traditional light bulbs. Solid-state lighting technologies like this use semiconductors to produce light instead of gases (fluorescent) or filaments (incandescent).

"Solid-state lighting is gathering momentum as a means to reduce the world's energy consumption", said Stephen Naor, CEO of Group IV. "Our vision from the very beginning has been to introduce light bulbs priced for mass adoption that are compatible with existing fixtures. Group IV's goal is to revolutionize the \$12 billion global lighting market."

*The Group IV - EnCana - SDTC Solid State Lighting Project* is a three year, \$9.1 million initiative being led by Group IV. Along with its partners, Group IV plans to further develop the technology and demonstrate its application in commercially viable lighting products. SDTC has confirmed \$2.1 million of funding for the project. EnCana has confirmed \$2.5 million, while Group IV has leveraged the remaining \$4.5 million from equity investors and other sources.

"Group IV is an example of Canada's extensive clean-technology expertise which helps the country claim a global leadership position in this area," said Vicky J. Sharpe, president and CEO, SDTC. "By helping Canadian companies overcome hurdles in the pre-commercial phase, SDTC plays an important role in increasing the likelihood that our

companies' innovations succeed, thus offering better choices in the reshaping of our economy. In this way, the investment is as much economic as it is environmental."

"EnCana is pleased to provide financial support for this project through our Environmental Innovation Fund. This project supports our commitment to innovation and leadership in cleaner and more efficient energy technologies," said Gerry Protti, Executive Vice-President, Corporate Relations, EnCana Corporation. "With over 20 per cent of electricity use in North America coming from natural gas and oil, EnCana recognizes the need for efficient lighting technology and the value it adds to the life cycle of our own products."

Potential benefits of the technology include:

- Mass adoption could lead to electricity savings equivalent to almost twice the electricity used annually by Toronto homes.
- A longer lasting bulb – potentially 50,000 hours. The typical life of an incandescent bulb is 1,000 hours; for compact fluorescents it is 5,000 hours.
- Excellent quality of white light.
- Can be used with existing light fixtures.
- Not hot to the touch like traditional incandescent or halogen bulbs - useful in situations such as display cases and freezers where heat is a concern.
- Lower manufacturing costs than other solid state solutions due to use of silicon.

#### **About Group IV Semiconductor Inc.**

Group IV Semiconductor is developing revolutionary silicon-based solid-state light emitters. These devices will be the building blocks of future solid-state lighting products that are more efficient than fluorescent lights, have a much longer life than conventional bulbs, and could be produced at costs low enough to promote rapid, widespread adoption. Group IV Semiconductor is based in Ottawa.

#### **About SDTC**

Sustainable Development Technology Canada is a foundation created by the Government of Canada that operates a \$550 million fund to support the development and demonstration of clean technologies — solutions that address issues of clean air, climate change, clean water, and clean soil to deliver environmental, economic and health benefits to Canadians.

An arm's length, not-for-profit corporation, SDTC fills the void in the innovation chain between research and commercialization — helping clean technology developers move through the development and demonstration phases, in preparation for commercialization. SDTC encourages collaboration among private, financial, academic, public sector partners and with the Canadian government to build a sustainable development infrastructure in Canada.

To date, SDTC has completed eight funding rounds and allocated a total of \$217 million to 97 clean technology projects. That amount has been leveraged by an additional \$560 million from other project partners, for a total project value of \$777 million.

**About the EnCana Environmental Innovation Fund**

The EnCana Environmental Innovation Fund was established in January 2004 to help implement EnCana's Corporate Responsibility Policy by financing projects that support the development and demonstration of new and cleaner energy technologies. Since its inception, the Fund has invested more than \$7 million in internal and external projects. As one of North America's leading natural gas producers, EnCana is committed to reducing our environmental footprint and advancing new ways to improve our environmental performance.

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