

## **NEWS RELEASE**

For Immediate Release

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## **CELLULOSE ETHANOL IS READY TO GO**

Iogen producing world's first cellulose ethanol fuel

**Ottawa** – Iogen Corporation announced today that it is producing the world's first cellulose ethanol fuel for commercial use. Cellulose ethanol is an ultra-low  $CO_2$  emission fuel that can be blended with gasoline and used in cars today.

"Today marks the first concrete signal of a major change coming in the fuel market," said Iogen President, Brian Foody. "We have always looked to better and more efficient vehicles to reduce fossil fuel consumption. Now, new advanced fuels are ready to play a role too!"

"Canada is on the cusp of new energy era and companies such as Iogen are showing the way," said the Right Honourable Paul Martin, Prime Minister of Canada. "Our technological expertise in clean energy will be one of the pillars of our economic and environmental prosperity in years to come."

"This milestone would not have been possible without the commitment, support and vision of Shell, Petro-Canada, and the Government of Canada," said Foody. "These organizations have shown that they are committed to bringing forward technologies that really can make a difference."

Iogen's cellulose ethanol technology is a result of more than 25 years of research and development. Iogen and its partners have committed over C\$110 million, and the company owns and operates the world's only cellulose ethanol demonstration scale facility.

"Iogen has demonstrated that clean, renewable fuels are no longer a dream, they are a reality," said Duncan Macleod, Portfolio Manager of Shell Global Solutions International B.V. "We believe that the global market for bio-fuels such as cellulose ethanol will grow to exceed \$10 billion by 2012. Cellulose ethanol is a great fit with Shell's commitment to leadership in fuels technology and sustainable development."

"All of us at Petro-Canada are pleased to see Iogen bringing its leading-edge cellulose ethanol technology to fruition," said Petro-Canada Vice-President Andrew Stephens. "We made our first investment in this technology over five years ago, so it's fitting that Petro-Canada will be the first user of cellulose ethanol, and will be receiving the first shipment at our Montreal refinery."

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"GM Canada welcomes Iogen's introduction of cellulose ethanol as a very significant product development that could make a considerable contribution to the reduction of greenhouse gas emissions," said David Paterson, Vice-President, General Motors of Canada. "GM's entire portfolio of vehicles is already capable of running on a blend of 10 per cent ethanol. We are pleased to see a leading-edge Canadian company like Iogen develop the next generation of ethanol and we encourage its adoption in the marketplace."

All vehicles can use a standard blend of up to 10 per cent cellulose ethanol mixed with gasoline, with no changes required.

Iogen's cellulose ethanol demonstration facility is the final proving stage prior to the rollout of full-scale commercial plants. The company is working with its partners to finalize plant locations.

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Notes to editor:

- 1. Iogen is a privately held company located in Ottawa, Ontario, Canada. Iogen has 160 employees and has been in operation since 1974.
- 2. Cellulose ethanol has two unique advantages over conventional ethanol. First, the greenhouse gas emission reductions from cellulose ethanol are three times greater than those from grain based ethanol on a life cycle basis. Second, cellulose ethanol is made from a plentiful and renewable resource, the non-food portion of agriculture crops (*e.g.* straw, corn stalks and corn cobs). By contrast, conventional ethanol is made from the food portion of agricultural crops (e.g. sugar, corn, wheat, and barley), feedstocks that have important alternative demands.
- 3. Financial contributions to research, development and demonstration of cellulose ethanol:
  - The Government of Canada \$21.1 million (\$10 million repayable);
  - Shell \$46 million;
  - Petro-Canada \$24.7 million.
- 4. Iogen Corporation also operates an established specialty enzymes business. Iogen Bio-Products focuses on improving the operation of industries that process natural fibre. The company makes and sells high quality enzymes that are used by industries including pulp and paper, textiles, and animal feed.
- 5. Shell Global Solutions is made up of seven independent technology companies within the Royal Dutch/Shell Group of companies. Together, they can draw upon more than 50 years experience in research, development, technical services and operational expertise.