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Petroleum Technology Alliance Canada (PTAC) is pleased to announce the release of Phase I study entitled– “Alternative Energy Solutions to Reduce Dependency of Natural Gas Consumption for Oil Sands Development (Phase I)”

Calgary, Alberta (July 31st 2009) - Petroleum Technology Alliance Canada (PTAC) is pleased to announce the release of the report entitled Alternative Energy Solutions to Reduce Dependency of Natural Gas Consumption for Oil Sands Development (Phase I)."

Nuclear power is capable of making a substantial long term contribution to meeting future Oil Sands energy requirements and reducing the environmental impact of Oil Sands projects, provided certain hurdles such as pilot testing, licensing, and economic viability are overcome. Because of these challenges, commercial application is not likely to happen until 2025.

This PTAC-initiated study included collaboration from Alberta Energy Research Institute (AERI), NRCan and several oil and gas producers. These organizations have provided funding and leadership for this project and have overseen its implementation through a Technical Steering Committee.

Conducted by SNC-LAVALIN Nuclear, this study investigated the feasibility and compatibility of nuclear power for three scenarios: mining, integrated mining and in-situ applications. The study included the evaluation of currently available Nuclear Power Plants (NPP) that could be available within a five to seven year period. In addition, an effort was made to identify 'next generation' nuclear power plant designs that could be available by 2020.

The key conclusions based on SNC-Lavalin findings are:

1. Nuclear power is capable of making a substantial long term contribution to meeting future oil sands energy requirements and reducing the environmental impact of oil sands projects;
2. All available NPPs that utilize water cooled reactors have thermal capacities that far exceed any of the individual scenarios defined by PTAC. Utilization of these plants in the oil sands region is therefore dependant on the Alberta Electricity grid accepting the surplus energy output;
3. The NPPs utilizing water cooled reactors are not capable of meeting the steam pressure requirements of the in-situ operations without the use of steam compressors and/or electric boilers;
4. The High Temperature Gas Reactors (HTGRs) can serve all oil sands energy requirements without the need for steam compressors and/or electric boilers. However, the HTGRs have specifically higher capital and operating costs than water cooled reactors, and it will be approximately nine (9) years before the first demonstration plant would be in operation.

A summary of the recommendations for this evaluation is provided below:

- Establishing an energy utility committed to providing the energy required by Oil Sands projects should be considered;
- HTGR development plans should be investigated further for determining costs and identifying approaches that could advance the availability date of commercial HTGRs.

Soheil Asgarpour, PTAC's President said "This is an important step in evaluating all potential options to reduce dependency on natural gas consumption for sustainable development of our world class bitumen resources."

PTAC is a not-for-profit organization. PTAC's vision is to help Canada become a global hydrocarbon energy technology leader through facilitation of innovation, collaborative research and technology development, demonstration and deployment for a responsible Canadian hydrocarbon energy industry. A listing of PTAC related projects is available on the PTAC website at www.ptac.org.

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