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The Enhanced CANDU 6™ nuclear power plant improves upon the established CANDU 6 design by increasing power output to 740 MW, simplifying operations and maintenance and offering state-of-the-art safety and security features.

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CANDU Canada - Canada's nuclear energy source. This website answers your questions about CANDU nuclear power and gives you the opportunity to find out more about the future of Ontario's energy supply.

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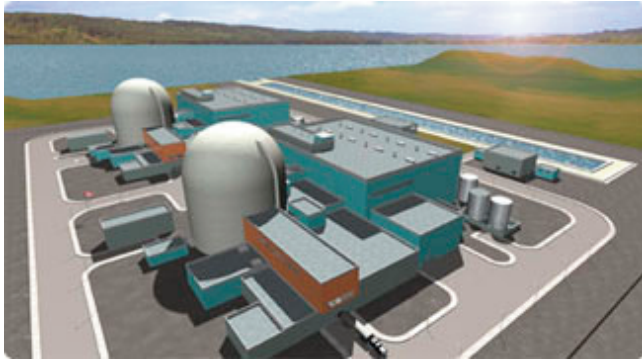
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Enhanced CANDU 6

Designed for the energy needs of the 21st century, ready for delivery in Ontario

AECL and its Team CANDU partners are offering to build new CANDU nuclear power plants in Ontario using their guaranteed delivery model. The Team is proposing for the first two Ontario units the Enhanced CANDU 6 power plant, an evolutionary version developed from AECL's internationally successful CANDU 6 technology.



CANDU nuclear generating stations have been the backbone of Ontario's base load electricity supply since the 1970s and currently supply about half the province's power. CANDU 6 technology has been adopted in five other countries around the world and is the global leader in fleet average lifetime capacity at more than 87 per cent.

"The idea behind the Enhanced CANDU 6 is to keep the best, proven attributes of the CANDU 6 design - natural uranium fuel, heavy water coolant and moderator and on-power fuelling - and update the product to improve power output and operating efficiencies, all while meeting modern international standards for licensing, safety and security," said Jerry Hopwood, AECL's Vice President of Reactor Development.

"We have a tremendous track record for building CANDU 6 nuclear generating stations on time and on budget, and for working with utilities who run these stations successfully. We know we can do the same with the Enhanced CANDU 6 here in Ontario."

The Enhanced CANDU 6 improves upon the established CANDU 6 design by increasing power output to 740 MW, simplifying operations and maintenance and offering state-of-the-art safety and security features. The units are designed with a planned operating life of 50 plus years, which will be achieved with a mid-life program to replace some of the key components, such as the fuel channels. The plants have a projected average annual capacity factor of more than 90 per cent. This maintains CANDU as one of the top performing plant types in the world.

Jerry said AECL's international customers continue to make a valuable contribution to the reactor design enhancement process.

"The feedback we receive from customers around the world helps us make enhancements to the design," he said. "This feedback ensures we are offering a fully up-to-date product that satisfies the customer, for Ontario and the rest of the world."

Short Overall Project Schedule

The Enhanced CANDU 6 overall project schedule is planned for 54 months from first concrete to in-service, with a second unit to follow six to nine months later.

These schedule targets will be achieved by the use of additional modularization compared to CANDU 6, plus approaches developed on previous CANDU 6 projects like open top construction using a Very-Heavy-Lift crane, integrated electronic engineering tools and project management systems, pre-ordering of key long delivery items, and standardizing various pieces of equipment such as valves, tanks and piping.

The Enhanced CANDU 6 has features that modernize the plant, simplify plant displays, reduce the amount of wiring runs and reduce construction costs. Computerized testing and displays have also been added to ease the operator's workload.

Superior Safety Response

To further improve plant safety, the Enhanced CANDU 6 design incorporates features to reduce the consequences of severe accidents. These features include additional heat sinks and a redesigned cooling system to further enhance control of containment temperature and pressure. The number of containment penetrations - wiring and piping, entrances and exits - are also reduced, and the containment structure strengthened to meet a higher design pressure and extend protection against external events.

"The project experience of AECL and our private sector partners around the world, coupled with the feedback from customers, enable us to provide a product with unrivalled operating performance," said Jerry. "With the CANDU 6 design pedigree as a base, we know we can deliver top-performing Enhanced CANDU 6 power plants on time and on budget in Ontario."

Building and Construction Trades Endorse CANDU for Canada

The Canadian Building and Construction Trades Department (BCTD), representing more than 400,000 construction trade workers in 15 international trade unions, has endorsed CANDU as the best choice for Canada's next nuclear power plant.



BCTD has joined the ranks of a growing number of organizations that have formalized their support for CANDU new builds in Ontario by becoming an Associate Member of Team CANDU.

"We are encouraged by the active role Team CANDU is taking in preparing for the renewal of the nuclear industry in Canada and in bringing together the participants from across the Canadian nuclear sector to secure a long-term place for Canada's nuclear technology at home and around the world," Robert Blakely, BCTD Director of Canadian Affairs, said in a letter to Team CANDU. "As an Associate Member, we look forward to our opportunity to participate with you in building this success."

Created in 1908, the BCTD has helped its affiliated building trades unions to make job sites safer, deliver apprenticeship and journey-level training, organize new workers, support legislation that affects working families and assist in securing improved wages, hours and working conditions through collective bargaining.

The North America-wide BCTD AFL-CIO (American Federation of Labor - Congress of Industrial Organizations) coordinates activities and provides resources to 15 affiliated trade unions in the construction and manufacturing industries. It has 386 state, provincial and local councils in Canada and the United States.

Jack Scott, Team CANDU Project Director said, "The fact that the BCTD is supporting CANDU new-build in Canada speaks volumes of their confidence in CANDU technology. We will be backed by the thousands of BCTD skilled workers – who will in turn benefit from projects here and from manufacturing for projects elsewhere."

Other organizations that have recently become Associate Members include of the Organization of CANDU Industries, Municipality of Clarington, Power Workers' Union, Canadian Nuclear Workers' Council, University of Ontario Institute of Technology and the Asthma Society of Canada.

AECL Retube Team Achieves Major Milestone at Bruce A, Unit 2

Efforts pave way for fuel channel replacement

AECL's Bruce Retube Team has reached a major milestone in its fuel channel replacement (retube) project with the removal of all fuel channel assembly closures on the Bruce A, Unit 2 reactor.

The removal of the 960 fuel channel assembly closures, or closure plugs, from the east and west ends of the Unit 2 reactor is an important part of the retube process and sets the stage for AECL to remove and replace that unit's fuel channels in late spring/early summer of 2007.



Millwright Steve MacNeil (left) and boilermaker Ryan Paquette monitor closure plug removal activities from the Bruce A, Unit 2 Communications Desk.

AECL has a contract with Bruce Power to replace the CANDU fuel channels of Bruce A Units 1 and 2 at the Bruce Power site near Tiverton, Ontario. The project involves the removal and replacement of 480 fuel channels in each of the two reactors, along with the associated hardware.

The fuel channel replacement program is considered a vital part of the overall Bruce A Restart Project and is unique in that it is the first time that a complete change-out of the entire fuel channel assemblies, including pressure tubes, calandria tubes, end fittings and the lower section of the feeder tubes, will take place in a reactor.

"The closure plug removal work, which began in late August, was the first significant work AECL had conducted within the primary heat distribution system of the Unit 2 reactor," said Bryan Murdoch, AECL General Manager of the Bruce Retube Project. "The work progressed very well, due in large part to efficiencies realized during early work completed under an advanced schedule."

Meanwhile, at time of publication, AECL crews were nearly completed separating the feeder assembly from the channel end fittings. AECL is using a feeder disconnect tool that uses hydraulics to shear the bolts that connect feeder pipes to Grayloc™ fittings on the fuel channels. During operation, the feeder pipes transfer heavy water coolant from the reactor's 480 fuel channels to the steam generators and back again.

According to Marshall Byle, AECL General Foreman on the project, trades workers on the project have been central to these early successes.

"Great thanks must be given to our dedicated trades people, who have really pulled together to make our success possible," said Marshall. "Many members of our trades organization have given up weekends off to ensure this progress continues."

AECL's project scope, which is progressing on-time, is being scheduled in conjunction with work being undertaken by other contractors to replace the steam generators, overhaul turbine-generators and complete upgrades to extend the life of the units to 2035 and beyond.

The Bruce Retube Team celebrated their first anniversary on the job on October 31st. To date, 219,000 worker hours have been expended with no lost time injuries.

CANDU technology is designed to accommodate major life extensions and refurbishing the CANDU fleet is one of Ontario's best options for generating clean, reliable and affordable base load electricity.



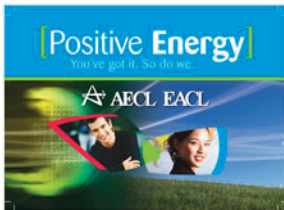
A fuel channel closure plug is inspected prior to labelling, transport and storage for later refurbishment.

New Recruitment Campaign Attracts New Grads

With a nuclear renaissance underway, increasing growth prospects and renewed interest in nuclear as a viable career option, AECL has launched a new recruitment campaign aimed at reaching a new generation of graduates.

Launched in late summer, the "Positive Energy. You've got it. So do we," campaign has already attracted a record-breaking number of students to AECL's booth at Ontario university career fairs in the fall and has generated more than 1,500 solid resumes.

"AECL is entering an extended period of rapid growth and opportunity," said Beth Medhurst, AECL Senior Vice President of Human Resources. "At the same time, we are introducing new products and services to the market, including retube and refurbishment services. In launching this recruitment campaign, we are being proactive in preparing ourselves for growth and addressing our current needs. This will help ensure that we have the right people with the right skills to support our requirements now and in the future."



AECL decided to undertake a more integrated approach to its recruiting efforts, with its Human Resources staff at its two major locations, Sheridan Park in Mississauga and Chalk River Laboratories, teaming up to develop a new, sophisticated way of presenting the company and its wide variety of employment opportunities.

Brenda Hall, Supervisor of Resource Planning at Sheridan Park said the energy sector "is an incredibly competitive market right now and will continue to be for many years."

"We recognized that if we want to attract talented individuals for our various projects and sites, we have to communicate how AECL is an energetic organization where people can develop their careers over time and access exciting opportunities," Brenda said.

Mary MacCafferty, of AECL's Chalk River HR Services, said that this fall's recruiting campaign was their most successful, with new graduates particularly attracted to AECL's wide variety of disciplines.

Charitable Giving, the United Way

AECL employees have been digging deep into their pockets to help support United Way-Centraide charities, raising more than \$120,000 for the cause this year.

"AECL and its employees are committed to making a difference in the world around them, as evidenced by the enthusiasm and generosity surrounding the annual United Way Campaign," said Beth Medhurst, Senior Vice President of Human Resources. "Collectively as a corporation and individually at the various sites, AECL employees work to support and participate in a number of charitable and community fundraisers year-round."

In addition to payroll deductions and cash contributions, AECL offices held a variety of fundraising activities for the cause, including online auctions, 50/50 draws, book and bake sales, special luncheons, a five-kilometre fun-run, raffles, early bird pledge card draws and a preferred parking spot silent auction.

"Through efforts like this one, AECL and its employees are helping to support sustainable communities," said Beth. "These are communities in which we work and the communities in which we do business. The funds raised in this campaign will help support vital social programs and services. As residents of those communities, it makes sense to help out. From a social responsibility perspective, it's just the right thing to do."

Donna Roach, Manager, Site and Community Affairs at AECL's Chalk River Laboratories, and United Way campaign lead at that site, said a successful campaign doesn't just happen on its own.

"Many thanks must go out to the many contributors, volunteer canvassers and local businesses that supported our activities," said Donna. "Without this combined commitment, we wouldn't be successful in our efforts to show our communities how important they are to us."

The United Way-Centraide's mission is to "improve lives and build community by engaging people and mobilizing collective action."



Hungry Chalk River staff members show support for the United Way during the annual breakfast fundraiser.

AECL Signs Agreement with Argentina on Expanded CANDU Program

Ottawa, 2006 November 27 — The Honourable Gary Lunn, Minister of Natural Resources, announced today that AECL (Atomic Energy of Canada Ltd.) has signed an agreement with Nucleoeléctrica Argentina S.A. that will advance co-operation in Canadian-developed CANDU nuclear power. The agreement covers the refurbishment of Argentina's first CANDU power station and includes a feasibility study for another 700-megawatt CANDU 6 power station.

"AECL's CANDU 6 power reactor is a leading performer in five nations," said Minister Lunn. "As an international leader in clean nuclear power, Canada is working with Argentina to strengthen our successful CANDU programs as the nuclear renaissance continues."

"AECL's agreement with Argentina sets out the framework for a program that will greatly enhance peaceful nuclear energy co-operation, with resulting commercial opportunities for both countries," said AECL President and Chief Executive Officer Robert Van Adel. "This is a very positive development for AECL and the Canadian nuclear industry."

The signing between representatives of AECL and Nucleoeléctrica S.A., an Argentinian government-owned company operating nuclear stations, was witnessed by the Minister of Planning and Federal Investment in Argentina, Julio De Vido. It reflects the importance both governments place on using world-leading CANDU power plants to meet increasing energy demands.

Argentina's nuclear power program is centred on heavy water reactors, including the very successful Embalse, an AECL CANDU 6 power reactor that was connected to the grid in 1983.

The agreement specifies a number of nuclear-related projects for joint co-operation. These include the refurbishment of Embalse, a feasibility study for the next CANDU station to go into service around 2015 and assistance to Nucleoeléctrica Argentina S.A. to help complete a reactor originally supplied by Germany. The agreement will also create commercial opportunities for Argentina to supply services and heavy water to international CANDU markets.

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About AECL

AECL is a full service nuclear technology company providing services to nuclear utilities around the world. Established in 1952, AECL is the designer and builder of CANDU technology including the CANDU 6, one of the world's top performing reactors.

AECL specializes in a range of advanced nuclear energy products and services that are an important component of clean-air energy programs on four continents. Its 4,000 employees provide research and development support, design and engineering, construction management, specialized technology, refurbishment, waste management and decommissioning in support of CANDU reactor products. More information on AECL and CANDU technology can be found at www.aecl.ca.

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