

Infrastructure

With extensive global experience in the planning, development and operation of infrastructure, we can provide engineering, procurement, construction and construction management services for projects of all sizes.



01

Source: The City of Calgary



ReNew Canada magazine awarded us Platinum Elite status for our involvement in 20 of the top 100 largest infrastructure projects in Canada in 2011. Ranked by capital cost, six of the 20 are among the country's top 10 infrastructure projects overall.

Expertise

- Urban transit & railways
- Roads & bridges
- Buildings
- Health care
- Airports
- Seaports & marine
- Water & waste water

It was a landmark year in urban transit. We acquired UK-based Interfleet Technology, a rail technology consulting company with expertise in rolling stock, railway technology and strategic railway management. Business continues to grow following the success of BC's Canada Line and the Reims tramway in France with major transit projects in Calgary, Edmonton and Avignon.

Our roads and buildings teams are working on some record-breaking projects. We're building the largest single highway project in Alberta's history, and we conducted studies for the largest highway concession ever undertaken in Colombia. Montreal's MUHC will be the only hospital in Quebec to bring together adult and all pediatric care under one roof, and the Tour Odéon will be the tallest building in Monaco and would rank the third tallest in France.

We are a leader in France's health care and airport sectors. We have health care projects underway in Toulouse, Cannes, Belfort and Guéret, and our airport contracts span the globe with projects in the Americas, Europe, Russia, Africa, the Caribbean and the Indian Ocean.

Our roads, ports and railways teams are also working worldwide—and, increasingly, with our mining group—to design and build transportation infrastructure for major mining projects. Quebec's Plan Nord will open up many opportunities for infrastructure and, with our acquisition of engineering firm Stavibel, we have significantly enhanced our local presence in the province.

We also acquired Aqua Data. Its unique expertise in computer analysis of municipal and industrial water infrastructure serves a growing market.

- 01 CALGARY WEST LRT
- 02 REIMS TRAMWAY
- 03 MONTREAL'S MAISON SYMPHONIQUE

COMPARED TO CONVENTIONAL BUILDINGS, MONTREAL'S NEW MAISON SYMPHONIQUE CONCERT HALL WILL CONSUME:



URBAN TRANSIT

In France, we completed all engineering for Reims' first tramway in less than two years, and are now acting as **project manager for Avignon's first two tramway lines**.

The **Calgary West LRT EPC project** is progressing well. Its scope includes six passenger stations, nine traction power substations and a major highway interchange.



Following our tremendous success on the Canada Line, the City of Edmonton chose us to manage construction and commissioning of its **North LRT line**.

In Kuala Lumpur, we're providing management expertise for **Prasarana's new fleet of rolling stock**.

RAILWAYS

We're developing site selection, engineering and construction plans for a new **160-km railway to serve Vale's Zogotta iron ore mine in Guinea**.

ROADS



We're addressing major technical challenges in our designs for a **two-level tunnel in Seattle**. Work will be carried out using the world's largest tunnel boring machine in a highly active seismic zone.

DRILLING THE
WORLD'S WIDEST BORED
TUNNEL UNDER ONE OF
THE BUSIEST SECTIONS
OF SEATTLE IN THE US.



Construction is progressing well on the **southeast section of Calgary's Stoney Trail**. Stoney Trail is the largest single highway project in Alberta's history and its largest PPP road infrastructure project.

As part of Quebec's Plan Nord, we're designing major sections of **Highway 167 N above the 49th parallel**.



In Manitoba, we're designing and building a four-kilometre, four-lane section of **Centrepark Canada Way**.

Our construction supervision mandate on the **East-West Highway in Algeria** was expanded to include access ramps and interchanges.

We completed studies for **the largest highway concession project ever undertaken in Colombia**. It comprises 755 km of highway, 90 km of tunnels and 50 km of bridges.

BRIDGES



By using lightweight mobile lifting frames for the **Princess Margaret Bridge deck replacement in New Brunswick**, we avoided having to reinforce the bridge to withstand heavier cranes.

THE COAST
MERIDIAN OVERPASS
PROJECT IN BC WON A
CANADIAN CONSULTING
ENGINEERING AWARD
OF EXCELLENCE.

BUILDINGS



Source: Groupe Marzocco - SCI Odéon

In Monaco, we're working with Groupe Marzocco on the **Tour Odéon**. It will have 49 floors, making it the principality's highest building.

We're incorporating utilities works into **Paris' new Arena 92 stadium**. It will feature the latest innovations in audio, lighting and video.

DND awarded us a **three-year architectural/engineering consulting contract** for all its buildings in mainland BC.

In Haiti, we're supervising the **construction of a major industrial park** that should create thousands of manufacturing jobs.

In Rethel, France, we're building a **swimming pool to HQE standards** with state-of-the-art environmental designs.

Montreal's new Maison symphonique concert hall and Toronto's Bell Lightbox both opened to international acclaim in 2011. We also completed designs for the renovation of Toronto's historic **Maple Leaf Gardens**.

We're providing architectural/engineering services for **Quebec City's flagship multi-purpose amphitheatre**.

HEALTH CARE



At peak construction, 13 cranes will be operating at **MUHC's Glen Campus in Montreal**. We're equipping each one with a GPS device to avoid collisions.



We'll provide full life cycle services for the **LEED Silver-targeted Restigouche psychiatric hospital PPP in New Brunswick**.



Source: SOA Architectes



We have an extensive technical mandate for **Guéret Hospital Centre's new geriatric facility in France**, and we're building a **specialized cancer research and treatment facility in Toulouse**.

AIRPORTS

In Colombia, our multi-disciplinary team working at **Bogotá's El Dorado International Airport** has expertise in construction, systems integration and baggage handling systems.



Following our design/build work for its **Albian Sands terminal and air strip**, Suncor hired us to prepare expansion plans for another of its airports in Fort McMurray.

Despite spatial constraints, we found an innovative solution for **expanding the runway at Abbotsford Airport in BC** without having to appropriate more land.



We're expanding **Pulkovo International Airport in St. Petersburg, Russia**.

In Africa, we're giving on-the-job training to local staff as we **design and manage construction at three airports in DRC and one on Tanzania's Mafia Island**.

On the French island of Mayotte in the Indian Ocean, we're **designing and building a new terminal and extending existing airstrips**.



In the Caribbean, we're **expanding the terminal and extending the runway at Grand Case's airport** on the French island of Saint-Martin.

SEAPORTS & MARINE

In an unusual reversal, **rehabilitation work at Havre-Saint-Pierre port in Quebec** is restricted to the winter months, as it must be open during ice-free seasons.



We're working with our mining division on **three major EPCM port mandates**; at the Cerrejón coal project in Colombia, at BHP Billiton's potash export facility in Washington State, and at ArcelorMittal's Western Range DSO iron ore project in Liberia.



In Greenland, we're designing a port for the **Isua iron ore project**, and we upgraded Alcoa's marine terminal facilities in Baie-Comeau, Quebec.

Our work at **Malabo Port in Equatorial Guinea** has led to a similar mandate at nearby Bata Port.

BC Ferries renewed our management services agreement for a second five-year term.

On other projects in BC, we built a **new ferry terminal on the Klemtu First Nation's island**, and we're designing a **new graving dock for Point Hope Shipyards**.

We have an **owner's engineer mandate for port-related infrastructure in Saudi Arabia, including a master plan for the Port of Jubail**.

We are one of only a few companies with the expertise to incorporate historical and geomorphological factors into flood risk surveys. We're taking these into account in our **surveys at Guadiana Basin in Spain, at Central Africa's largest port in Gabon, and in a climatic change risk study on BC's coast**.

WATER

We're building a **district cooling complex for Saudi Aramco's head office and surrounding residential area, and two mega-district cooling plants** at the King Abdullah Financial District in Riyadh.

We completed **construction of the Taksebt and Koudiat Acerdoune water transfer and treatment plants** in Algeria. Taksebt is now the largest potable water facility in Africa.

Environment

We have over 50 years of experience providing environmental services worldwide, with specialized expertise in the power, infrastructure, hydrocarbons and chemicals, mining, industrial, rural development and climate change sectors.



Source: AIRP



Climate change is no longer just a looming threat. It is manifest in extreme weather all over the world. Although we're still working to reverse climate change, we now have a new service to help clients prepare for its impacts. We're helping cities in Brazil and Quebec develop adaptation plans, and we continue to work with governments and industrial clients to reduce and report on GHG emissions.

We also work with governments and industry to build greener buildings and remediate contaminated sites. Four LEED Silver-targeted projects are underway in Alberta, and we're working on Canada's largest active remediation project in Newfoundland and Labrador. In Saskatchewan, we're building the world's largest groundwater containment barrier.

We often team up with other divisions to incorporate social and environmental considerations into projects from the earliest stages. We're working on mining projects in Indonesia, Guinea and Quebec, a gas project in Venezuela and two transport projects in Alberta. Taking this collaborative approach further, we acquired MDH, a geoenvironmental firm specialized in the mining sector. Its team is working with our mining division on BHP Billiton's landmark Hub contract in Saskatchewan.

We also acquired Hydrosult, which brings us important new expertise in water resources; we've been working together on the Dahla Dam irrigation project in Afghanistan. Our irrigation and rural development team also has projects underway in Ethiopia, Colombia and Senegal.

**01 DAHLA DAM
IRRIGATION PROJECT**
02 5 WING GOOSE BAY

**THE GAMBELLA
ALWERO IRRIGATION
PROJECT
IN ETHIOPIA:**

**10,000-ha
irrigation
scheme
for rice**

Expertise

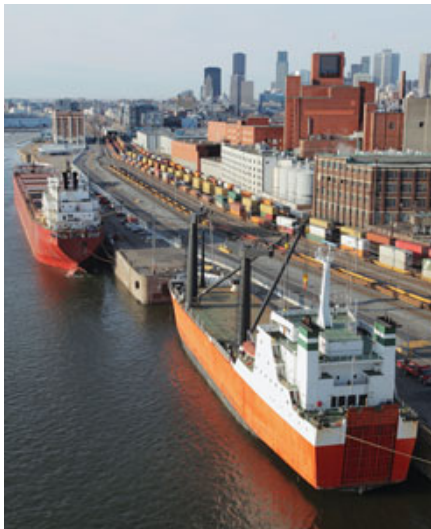
- Air quality & climate change
- Green project services
- Irrigation & rural development
- Site assessment & remediation
- Risk assessment & toxicology
- Social & environmental impact assessments & management
- Geoenvironmental services
- Water resources

AIR QUALITY & CLIMATE CHANGE

We have a multi-disciplinary team working on **climatic models, vulnerability assessments and adaptation plans in Curitiba, Brazil and Trois-Rivières, Canada** to help them prepare for climate change and minimize its impacts.

Our emissions simulation studies allowed CEZinc and Xstrata Copper **to accurately estimate their GHG emissions** and suggest modifications to Quebec's draft cap and trade regulation, given its economic implications on their facilities.

Working with BC's Climate Action Secretariat, we're **helping Graymont Western Canada through the province's first cycle of GHG reporting verification procedures.**



Transport Canada awarded us an **emissions evaluation contract for all its Port Authorities in eastern Canada.**

GREEN PROJECT SERVICES



We have **four LEED Silver-targeted health care projects** in design or under construction in Alberta.

IRRIGATION & RURAL DEVELOPMENT

In Ethiopia, working with a local partner, we're **reviewing and validating all engineering studies and design drawings for a 10,000-ha irrigation scheme**, and supervising construction of the irrigation and drainage infrastructure.

We're helping **Senegal develop a sustainable commercial agriculture program** by introducing new technology and infrastructure, and a cost-shared innovation fund for growers, producers and exporters.



Source: AIRP

▲ The **Dahla Dam project** has helped some of **Afghanistan's most vulnerable people** by introducing high-value crops like saffron, which yield more money and create jobs.

◀ The **24,000-ha Triángulo del Tolima irrigation scheme in Colombia** includes secondary, tertiary and in-farm detailed design.

SMALL DAM PROJECTS IN AFGHANISTAN WILL SUPPLY WATER FOR IRRIGATION, CONSUMPTION AND POWER PRODUCTION.

SITE ASSESSMENT & REMEDIATION

5 Wing Goose Bay in Newfoundland and Labrador is the largest active remediation project in Canada. We're extracting leached fuels from a depth of about 30 m; one of the deepest operations of its kind ever performed.

We evaluated all significant carbon-producing aspects of two waste management options for Newfoundland and Labrador over a 50-year lifespan to determine which option would be cleaner.

Shell and Imperial Oil awarded us ongoing services agreements for assessment and remediation work at their facilities in western and central Canada.

Capacity-building and community engagement and consultation are key components of our **mine assessment and remediation program for First Nations groups in BC.**

We're helping a pharmaceutical company with a **waste water complex problem** by designing a new process for its waste water system, and we're supporting Environment Canada in its review of waste water technologies in the mining sector.

RISK ASSESSMENT & MANAGEMENT

We're **assessing multiple contaminated sites on Canada's Atlantic and Pacific coasts** to evaluate ecological and human health risks associated with sediments, soil and water.

SOCIAL & ENVIRONMENTAL IMPACT ASSESSMENTS & MANAGEMENT

Major multi-divisional projects in 2011 include the Rio Caribe-Mejillones gas development in Venezuela, MEC's coal project in Indonesia, Vale's Simandou iron ore project in Guinea, the Pan Minera copper project in Panama, New Millennium's iron ore project in Quebec, and power line and public transit projects in Alberta and Ontario.

Rio Tinto chose its portion of the Simandou project as the pilot site for its Biodiversity Strategy initiative. Our baseline work there should become a mining industry benchmark for biodiversity.

GEOENVIRONMENTAL SERVICES

The hydrological/geological mapping work we're doing in Saskatchewan is the first project of its kind on such a large scale. It will be a web-based, GIS-driven reference tool for industry and the public.



▲ Ten kilometres in length and up to 46 m deep, the **groundwater containment barrier we're building for PotashCorp** will be the largest ever built.

WATER RESOURCES

Newly acquired Hydrosult is working with governments and development agencies in Palestine, Yemen, India, Sri Lanka and Afghanistan to help develop and manage water resources.

Hydrocarbons & Chemicals

Our team of highly qualified experts worldwide has a hard-earned reputation for completing projects safely, on time and on budget, often in the most challenging conditions. We work to provide our clients with integrated, cost-effective and sustainable solutions that cover the full project life cycle including engineering, construction and maintenance.





Our Spanish office earned a national engineering award for its design work at Repsol's Cartagena refinery in Spain. The new technology installed will reduce pipeline operating and investment costs as well as the refinery's environmental footprint.

Expertise

- Gas processing & CCS
- Oil sands
- Heavy & conventional oil production
- Upgrading & refining
- Offshore oil & gas
- Pipelines, terminals & facilities

The CCS market is growing as companies try to reduce, recycle and reuse waste. We're flexible in this field, having no ties to any specific CO₂ technology. We're working with Enbridge to find ways to reduce the cost of transporting captured CO₂ to oil fields and storage sites. CO₂ captured from SaskPower's coal plant in Saskatchewan will be transported to oil fields and used for enhanced oil recovery. In the oil sands, the pilot-scale plant we designed for Titanium Corporation will transform tailings waste into useful products.

In other oil sands developments, we designed a first-of-its-kind, portable, mini SAGD plant to extract isolated pockets of oil normally left untapped. Fully modular, it can be built off-site, operated remotely, and easily moved.

Saudi Aramco awarded us a five-year GES+ contract and Imperial Oil awarded us a five-year upgrading and refining services contract, furthering our long-standing relationships with these clients. We also established a strong local foothold in Colombia late in 2010 with the acquisition of Itansuca, a highly-regarded engineering firm.

The offshore oil and gas market is picking up again. We were awarded a contract at Statoil's landmark Mariner development in the North Sea, and another at PDVSA's giant Rio Caribe-Mejillones development off Venezuela's coast.

In the Middle East, we're helping Iraq's Ministry of Oil refurbish the country's oil and gas pipeline network so it can resume exports to international markets and rebuild its economy.

- 01 SUNCOR REFINERY
- 02 WORKSHARE PROGRAM
- 03 CANADIAN NATURAL PLANT

POTENTIAL RECOVERY AND RECYCLING OF TAILINGS WASTE AT TITANIUM CORPORATION'S OIL SANDS PILOT PLANT:



GAS PROCESSING & CCS



Our **EPC mandate at the Rhourde Nouss natural gas complex in Algeria** is progressing well. Working in a remote region of the Sahara Desert, we're building infrastructure to collect raw gas at four different gas fields, a natural gas processing plant and a CO₂ reinjection facility.

Along with our client, **Enbridge**, we're working to **reduce the cost of delivering CO₂ to oil fields and sequestration sites** by transporting sulphur and other marketable products in pipelines along with liquid CO₂.

Our **mandate at SaskPower's CCS facility** includes EPC services for the pilot plant, a heat rejection system and a CO₂ compression system.

In Belgium, we were able to bring added value to our client, **Fluxys**, by proposing more efficient energy technology at its natural gas storage complex expansion project.

The new gas compression stations we're building for **GRTgaz in France** will increase its natural gas network and transport capacity while reducing GHG emissions.



In Spain, we're doing expansion work at **Enagas' LNG regasification plant**, adding a new 150,000-m³ tank and a power plant.

OIL SANDS

Canadian Natural awarded us a lump sum EPC mandate for a 155,000-bpd froth treatment plant at its Horizon site near Fort McMurray.

A resurgence in Alberta's oil sands resulted in **contracts for the engineering, design and procurement** for Mackay Operating Corp's SAGD plant, and **FEED, long lead procurement and early work** for MEG Energy's multi-phase Christina Lake development.

To gain access to smaller locked-in oil pockets that normally go untapped, we are **designing a first-of-its-kind, fully modularized small-scale SAGD system with Grizzly Oil Sands**. Once the oil is extracted, the modules can be moved to tap other sites.

HEAVY & CONVENTIONAL OIL PRODUCTION

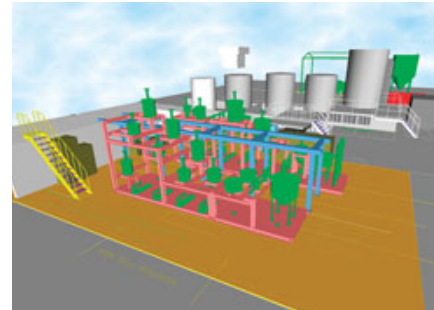
Our work with **PDVSA in Venezuela** continues with the award of major studies for four oil developments to increase production in the Orinoco Belt.

In Peru, we're doing **FEED work for Talisman Energy's Situche Central Development Project**.

It includes a 60,000-bpd central production facility, a 100-km oil export pipeline, a gathering system and infrastructure facilities.

Globalstroy-Engineering awarded us a contract for design, procurement, project management support and commissioning services for Phase III, Package 4 of its Kharyaga project in Russia.

Ecopetrol awarded our new office in Colombia a major project management mandate to help develop Colombia's crude oil distribution plan and associated projects for 2011 to 2013.



Titanium Corporation is creating a new value-added industry in Alberta to turn tailings waste into useful products. **We designed its pilot hydrocarbon processing plant, which will remove hydrocarbons and heavy minerals from a tailings solvent recovery unit.** We also conducted a study on three options for commercial-scale HPP facilities.

UPGRADING & REFINING

Saudi Aramco awarded our local joint venture a five-year GES+ contract for engineering and project management services. Projects will span oil and gas production and processing facilities, both onshore and offshore; infrastructure projects; and refining and petrochemical facilities.



Imperial Oil renewed our ongoing services agreement for its Sarnia refinery and chemical plant for another five years. We have been working with Imperial Oil at its Sarnia facilities since 1996.



Source: ExxonMobil



We've been working at ExxonMobil's Baytown facility in Texas since 1966. Our safety record is particularly noteworthy. **In September, we celebrated six years and five million person hours without a lost time incident.**

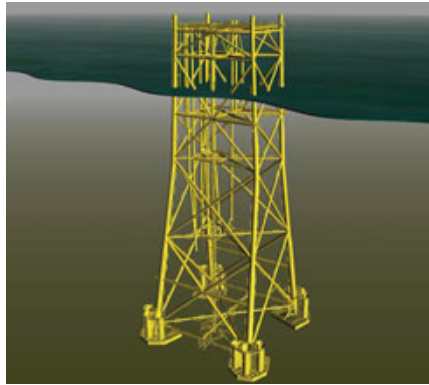
We're overseeing installation of a state-of-the-art ultra low sulphur diesel unit at PetroTrin's refinery in Trinidad that will meet world-class diesel specifications.



We have completed detailed engineering on our EPCM mandate to revamp the fluid catalytic cracking unit at Suncor's Montreal refinery. We successfully lifted and removed a decommissioned column from a tight location in the vapour recovery unit surrounded by operating equipment without shutting down plant operations.

We made important inroads into India's large EPC market in the oil and gas and petrochemical sectors. OPaL hired us to perform detailed engineering/consulting services for its Dahej petrochemical complex.

OFFSHORE OIL & GAS

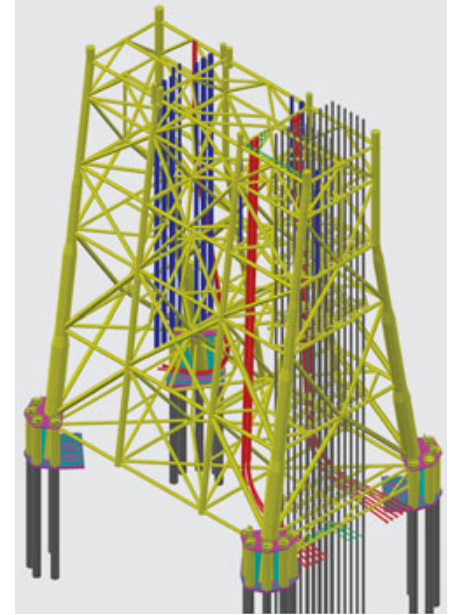


Nexen Petroleum awarded our UK office a FEED and detailed engineering contract for two jackets on its Golden Eagle development in the North Sea. Each jacket weighs about 6,500 tonnes and will be installed at a water depth of 104 metres using a heavy lift crane vessel.

THE MARINER DEVELOPMENT IS EXPECTED TO RECOVER THE HEAVIEST CRUDE OIL THE NORTH SEA HAS EVER PRODUCED.

Following our completion of the concept screening phase, **PDVSA awarded us the FEED for its Rio Caribe-Mejillones** gas condensate development off the coast of Venezuela.

We used a highly specialized electromagnetic alternating current field measurement technique to detect any flaws in the offshore structures underwater at ExxonMobil's Hibernia offshore loading system replacement project off the coast of Newfoundland and Labrador.



Statoil awarded us a **FEED mandate for a 25,000-tonne substructure, jacket and piles** at its landmark Mariner offshore development in the North Sea.

PIPELINES, TERMINALS & FACILITIES

Iraq's Ministry of Oil hired us to prepare studies for a planned overhaul of its **country-wide 1,500-km oil and gas pipeline network**. We will also do economic modelling for the exporting of 2.5 Mbpd of oil and 3 Bscfd of gas.

We're working with Ecopetrol to help develop and manage a **cross-country heavy oil transportation system**. It is one of the largest oil consulting projects in Colombia.

We're providing technical, HSE and administrative supervision services for Oleoducto Bicentenario de Colombia's crude oil pipelines at the Araguaney and Banadia stations, and at the Coveñas terminal.

SASKPOWER'S CCS FACILITY IN SASKATCHEWAN WILL CAPTURE 3,500 TPD OF CO₂ TO BE USED FOR ENHANCED OIL RECOVERY.

Mining & Metallurgy

We are a global leader in this sector and have worked on many of the largest and most challenging projects ever undertaken in this field. We deliver a complete range of services from conceptual studies to full project implementation, including start-up assistance and operational training for any project, from mine to port, regardless of size, location or complexity.





Source: BHP Billiton



Our leadership position in potash was reinforced in 2011 as BHP Billiton awarded us a landmark contract to develop its pipeline of potash projects.

Expertise

- Iron ore
- Gold/silver/precious metals
- Copper/nickel/base metals
- Aluminum/bauxite/alumina
- Potash/phosphate
- Diamonds/coal/uranium/ferro alloys
- Sustainable mine development

Ports, roads, railways and even power plants and transmission lines feature in our mandates. Projects with one or more of these components include ArcelorMittal's iron ore project in Liberia, Carbones del Cerrejón's coal mine complex in Colombia, Inmet's Mina de Cobre Panama project in Panama, the Ambatovy project in Madagascar, Vale's S11D project in Brazil, and the Jabal Sayid copper project in Saudi Arabia. Many environmental and sustainable development projects are also underway; including a project at Vale's nickel smelter in Ontario to reduce emissions and minimize planned production shutdowns on site during construction.

In aluminum, our EPCM contract for EMAL II includes a 1,000-MW upgrade of a thermal power plant. We're also working with Rio Tinto Alcan on the world's first AP60 aluminum smelter. It will use new energy-efficient, cost-effective technology.

Stornoway awarded us a diamond mine study. If viable, it will be Quebec's first diamond mine, potentially creating a new industry in the province. It's part of Quebec's extensive Plan Nord economic and social development initiatives, which will bring numerous opportunities in this and other sectors.

We continue to look for innovative ways to restore and reclaim mine sites. We're using a new technique to control acid mine drainage at the Aldermac mine in Quebec, and final revegetation of the site is based on state-of-the-art ecological engineering practices.

- 01 AMBATOVY PROJECT
- 02 BARRO ALTO PROJECT
- 03 BHP BILLITON HUB
- 04 COLLAHUASI PROJECT

QUEBEC'S PLAN NORD WILL INVEST

\$80 billion over 25 years to develop the province's vast natural resources

IRON ORE



Our **numerous mandates for ArcelorMittal** include an EPCM mandate for an iron ore complex in Liberia for complete mine-to-port facilities and associated infrastructure. In Quebec, we are developing new mine concepts and have an EPCM mandate for an 8-Mtpy expansion.

We're **evaluating the feasibility of New Millennium and Tata Steel's Taconite project** in Canada at one of the world's largest magnetite reserves.

We're **addressing unique challenges in our feasibility study for London Mining's concentrator in Greenland**; the mine is on the edge of an ice cap and the site is on a glacier.



Construction began on our **EPCM expansion mandate at SNIM's Guelb II iron ore project** in Mauritania, and we're conducting two separate studies for VBG's Simandou project in Guinea.



Using SmartPlant 3D technology, we're **preparing detailed designs** for Vale's Apolo and Vargem Grande beneficiation plants in Brazil.

VALE'S HUGE S11D PROJECT IN BRAZIL IS THE LARGEST GREENFIELD IRON ORE PROJECT EVER UNDERTAKEN.

Our **feasibility study for the Zamin Valentines project** in Uruguay covered an 18-Mtpy beneficiation plant and all associated infrastructure.

Our **JV work at Vale's S11D project in Brazil** covers a 90-Mtpy beneficiation plant, material handling facilities and all associated infrastructure.

ANGLOGOLD ASHANTI'S URANIUM SOLVENT EXTRACTION PROJECT IS ONE OF ONLY A FEW URANIUM PROJECTS UNDERWAY IN THE WORLD.

COPPER

Following our EPCM work on Phases 1 and 2 of its world-class Collahuasi copper project in Chile, **CMDIC awarded us a prefeasibility study for Phase 3, including two additional concentrator lines, each with a capacity of 100,000 tpd.**

Our Australian and Saudi Arabian offices are working on an **EPCM mandate for the Jabal Sayid copper project** in Saudi Arabia.

In Africa, EPCM work continues at Glencore's **Katanga copper SX/EW plant in DRC.**

A feasibility study was completed for Antofagasta Minerals' Antucoya project in Chile to produce 80,000 tpy of copper.



We're **completing studies for the Mina de Cobre Panama and Galeno copper concentrators in Panama and Peru**, each with a capacity of over 150,000 tpd.

COAL



Our JV is **upgrading Carbones del Cerrejón's coal mine, railway and export complex** in Colombia.

URANIUM

EPCM work is progressing well at **AngloGold Ashanti's uranium solvent extraction plant** in South Africa.

FERRO ALLOYS

We completed a **prefeasibility study for Cliffs Natural Resources in Canada's Ring of Fire deposit**, and pilot plant test work at Mintek in South Africa.

We are **rebuilding a ferrochrome furnace for Zimasco in Zimbabwe**, and have completed basic engineering for Tharisa's new ferrochrome smelter in China.

ALUMINUM

We were awarded the **EPCM contract for EMAL II**. It will house the longest potline ever built and use a more efficient version of DUBAL DX technology.

We completed an **EPCM upgrade at BHP Billiton's Mozal smelter** in Mozambique.

We're preparing a detailed study and implementation plan to **modernize Alcoa's Baie-Comeau aluminum smelter**, increase its capacity and meet environmental requirements.

Aluminerie Alouette awarded our JV the Phase III study for its new smelter in Quebec. We've been working with Alouette since the mid-1980s, providing study and EPCM services for the original greenfield construction and Phase II expansion.



We've been **part of Rio Tinto Alcan's groundbreaking AP60 pilot plant project** in Jonquière since it began in 2007. Our JV EPCM mandate has now progressed to the construction phase.



Rio Tinto Alcan's Boyne modernization project in Australia involves both greenfield and brownfield components. Brownfield work was done while the potroom operated at full capacity.

ALUMINA

We provided project management and engineering support services for the **Kabata alumina refinery project** being developed by **Alcoa and Rio Tinto Alcan**.

GOLD

Our **EPCM work for Goldcorp's Éléonore project** in Quebec encompasses all processing, tailings management and site infrastructure, including an air terminal and camp.

Kinross awarded us the EPCM mandate to add a fourth ball mill, flash flotation and tailings desulphurization facilities at its Paracatu operations in Brazil.

In Kyrgyzstan, we completed **a prefeasibility study for Chaarat Gold**.

NICKEL

Construction is nearly complete on the Ambatovy project, a greenfield 60,000-tpy nickel laterite mine and refinery in Madagascar. We are supporting the commissioning and start-up of the mine, ore slurry preparation plant and pipeline, port, and process plant.



We're **developing an emissions reduction plan** that will ensure Vale's nickel smelter and refinery in Ontario meet planned production levels.

In Turkey, we're **designing and building** Meta Nikel's Gordes nickel laterite ore processing plant.

Anglo American's Barro Alto ferro-nickel project successfully reached mechanical completion in Brazil. Start-up and production ramp-up are underway. The project received various safety awards.

From Chile, we are executing an **EPCM heap leaching project for Cerro Matoso** in Colombia.

POTASH

Within the **BHP Billiton Hub**, we are executing EPCM mandates on the Jansen and Port projects with other studies to follow.

We are doing definition and basic engineering for **K+S's Legacy project**.



We received the formal go-ahead for the **implementation phase of Agrium's Vault project**.

DIAMONDS

Stornoway awarded us the **feasibility study for a diamond mine in Quebec**.

Alrosa awarded our South African office a breakthrough contract for a complete **60-tonne/hr dense media separation plant**.

SUSTAINABLE MINE DEVELOPMENT



We have mine reclamation projects underway in the Americas, Oceania and Africa. We're doing environmental management for the demolition and rehabilitation of part of the Kitimat aluminum smelter in BC. We're also restoring the abandoned Aldermac mine site in Quebec using a new acid mine drainage control technique. A raised water table keeps tailings underwater and away from oxygen, eliminating the need for a dam.

GEOTECHNICAL SERVICES



Our **geotechnical projects** include the Éléonore, Brunswick, Matagami, Raglan and Niobec projects in Canada, the Mina de Cobre Panama project in Panama, the Isua mine in Greenland and the Goro nickel mine in New Caledonia.

Power

Our Power group has 100 years of experience in over 100 countries. Our projects now represent an installed capacity of more than 350,000 megawatts, 110,000 kilometres of transmission and distribution lines, and 1,600 substations around the world.





Power magazine named two of our thermal projects among the world's top six gas-fired plants for 2011: Astoria II, in New York City, for skilled design and construction work in a dense urban setting, and Emal I, in Abu Dhabi, for its efficient and reliable design.

Expertise

- Renewable energy
- Hydro
- Thermal
- Nuclear
- Transmission & distribution
- Telecommunications

We're working with our clients to develop cleaner, safer energy that uses resources more efficiently and creates less waste. The Te Mihi geothermal project in New Zealand will tap the Earth's natural heat to produce reliable, renewable energy. In Saskatchewan, we're working on the world's first fully-integrated, commercial-scale power plant CCS facility. It will incorporate CCS technology into a refurbished coal-fired plant, reducing GHG emissions by approximately 1 Mtpy.

The Waneta hydro project in BC is integrating a new power plant into existing infrastructure to increase and optimize power production without requiring a new dam. In Newfoundland and Labrador, we're working with the Muskrat Dam First Nation on the Muskrat Falls power plant and transmission line, part of the massive Lower Churchill development initiative. Our plans accommodate traditional hunting and fishing practices and promote long-term social and economic benefits for local communities.

2011 was a landmark year for our nuclear power division. We acquired certain assets of AECL's commercial reactor division, creating Candu Energy Inc. and assuming stewardship of CANDU technology. Considered among the world's safest, each CANDU reactor is developed to meet the specific environmental and geographic characteristics of its location.

We also continue to work with our clients to design and build cleaner, more efficient coal and gas plants. Chugach's gas-fired Southcentral plant in Alaska will be about 25% more efficient than conventional plants.

- 01** SOUTHCENTRAL THERMAL PLANT
- 02** ASTORIA II WINNING TEAM
- 03** SASKPOWER FACILITY
- 04** KAREBBE PROJECT

THE FENIX THERMAL POWER PLANT AND COOLING SYSTEM IN PERU WILL PRODUCE:

520 MW
of power
and
2,000
m³/day
of potable
water

RENEWABLE ENERGY



▲ **SaskPower expanded our design/build mandate** at the Boundary Dam CCS complex in Saskatchewan with two new contracts: a heat rejection system and a CO₂ compression system and related balance of plant.

New Zealand's Contact Energy awarded our joint venture an **EPC mandate for two new 83-MW geothermal power plants** at its Te Mihi site. Natural steam will power turbines and then be re-condensed and re-injected back into the earth to be reheated again. Properly managed, geothermal plants can operate perpetually.

HYDRO

Our Newfoundland office and the Hydro, T&D and Aboriginal Affairs divisions are working together on an **EPCM mandate for the first phase of Nalcor's massive Lower Churchill project at Muskrat Falls**. We're collecting data on the natural environment and ensuring traditional hunting, fishing and trapping practices are taken into account.



▲ **Our EPCM expansion mandate continues at the Shipshaw power station**, and is scheduled for completion in 2012.



▲ Built in 1954, the **Matala dam and power plant complex in Angola** has fallen into disrepair. Our Hydro and Construction divisions were awarded an **EPC mandate to do emergency reconstruction work on the dam**, while ensuring the power plant continues to operate. Once the complex is fully operational, it will produce power for the surrounding region and supply water to irrigate adjacent farmland.



▲ Construction is underway on **Columbia Power's Waneta expansion project in British Columbia**. We are incorporating safety and environmental best practices, sustainability and community interests into every phase of the project's life cycle.

We have begun **engineering/design work on BC Hydro's Site C Clean Energy Project**. It will gain efficiencies by using water stored in the Williston Reservoir, and produce up to 1,100 MW of clean, renewable power.

We completed our **EPCM mandate for Vale's 130-MW Karebbe hydro project in Indonesia**. Work was completed on schedule with nearly 10 million person hours worked without a lost time incident.

Work is progressing well on our **construction management mandate at the 250-MW Hulu Terengganu project in Malaysia**.

We have **several hydro projects underway in India**, notably, the 3,070-MW Etalin project, which will be India's largest hydro development; the 1,200-MW Teetsa-III project; and the 1,600-MW Subansiri project, which is investigating the innovative possibility of locating the powerhouse in the body of the dam to avoid large-scale underground works.

THERMAL

The **550-MW Astoria II plant went into commercial operation in New York City** in 2011. Spatial constraints required our team to prefabricate major components and manage complex logistics to complete the project on time and budget. Management of environmental issues at the contaminated site was a showcase for our ISO-14001 environmental program.



▲ We're using fuel-efficient GE LM6000-PF technology and best practices to **design and build Chugach Electric Association's 183-MW Southcentral gas-fired plant in Alaska**.

In Tunisia, we're **building a 420-MW dual fuel combined cycle power plant** with Ansaldo Energia within the Sousse power complex, including gas, fuel storage and water treatment facilities and compressed air works.

Under a three-year agreement with the Government of Nunavut in the Canadian arctic, we're helping to upgrade and rehabilitate several stand-alone power plants that each serve an individual community. We've also introduced a mentoring program for local junior engineers.



▲ The **520-MW Fenix power plant in Peru** includes a seawater intake structure for the plant's cooling system, which will also supply 2,000 m³/day of potable water to the municipality of Chilca.

NUCLEAR



Our **retubing and refurbishment work at Argentina's Embalse CANDU nuclear generating station** is designed to add 25 to 30 years to the power plant's operational lifespan.

We carried out **preliminary work at the Prairie Island nuclear plant** during a refuelling outage in preparation for the steam generator replacements to be done in 2013.

We've reached the **close out and commissioning phase at the Bruce 1 and 2 balance of plant project**. Overall, this restart project was the largest undertaking of its kind at a Canadian nuclear plant. Our scope touched virtually every system, control and mechanism.

In 2011, we became the first and only engineering/construction firm in Canada to achieve the **ASME N-Stamp Certificate of Authorization**, one of the industry's highest and most coveted quality and safety standards.

Following the Fukushima disaster in Japan, many governments are looking to ensure the continued, safe operations of their nuclear plants. **We are installing reactor containment filtered venting systems at Societatea Nationala Nuclearelectrica's (SNN) Cernavoda nuclear power plant** in Romania. We're also helping SNN perform design changes and severe accident assessments for its stress test implementation report for the Romanian regulator and the European Union.

ALL TOLD, WE HAVE
DESIGNED AND BUILT OVER
48,000 MW IN THERMAL
PROJECTS WORLDWIDE.

TRANSMISSION & DISTRIBUTION

We made **important inroads in the northeastern US with three-year services agreements** from both Iberdrola and National Grid for all EPC and EPCM work. Their combined networks in the region comprise Maine, Massachusetts, New Hampshire, New York and Rhode Island.



We are doing **major upgrade work on Alberta's T&D network**, including a new 500-kV DC line in the Edmonton area.

Working with our Newfoundland office and Hydro division on the Lower Churchill project, the T&D group is doing the **AC/DC transmission and distribution systems and all substations** over an area of about 1,000 km between Newfoundland and Labrador. Our work also includes installation of a high voltage, DC converter station for more extensive and efficient power distribution.

TELECOMMUNICATIONS

Working with our Infrastructure division, we're **designing and installing all communication, security and information technology systems** at the new international airport in Bogotá, Colombia.



In Montreal, we've begun **working on a leading edge service management information system for city bus passengers**. It will give real-time information to passengers online and via cell phones, iPhones and BlackBerrys.

CANDU REACTORS
SUPPLY OVER 22,000 MW
OF SAFE, CLEAN,
RELIABLE ENERGY ON
FOUR CONTINENTS.

Operations & Maintenance

We are one of Canada's leading O&M providers, with a portfolio that includes public and private facilities, infrastructure assets, remote camps and naval vessels in North America, the Middle East and Africa.



01

It was a year of growth for our project, property and facility management division. We acquired Canadian firm Arcturus, which manages over three million square metres of property across Canada, and we opened new operations in all three Baltic countries.

We also made three important additions to our service offering. We now provide stand-alone project management and commissioning services, and we introduced a package of seven sustainability services.



02

We won new contracts for facilities in Doha, Qatar and Saudi Arabia, and added a psychiatric hospital to our growing health care portfolio in Canada. We also began our O&M mandate at Montreal's new Maison symphonique concert hall, and we'll be starting O&M activities at Calgary's Southeast Stoney Trail in 2013.

We are a leader in airport operations and maintenance in France. Four new airport contracts in 2011 brought our total to 12 in France and its overseas territories.

On the industrial side, the Fouka desalination plant was commissioned in Algeria. We now operate and maintain four industrial facilities in the country.

Our remote camps business continues to grow. We set up and closed out a new logistical support base on Cyprus for Canadian Forces leaving the Middle East, and the Canadian Navy renewed our in-service support contract for another four years. In Alberta we're providing temporary accommodation support for Slave Lake residents displaced by forest fires, and we continue to work with ConocoPhillips in Fort McMurray, with the opening of the Surmont Regional Residence.

01 SURMONT PROJECT
02 DND IN-SERVICE
SUPPORT CONTRACT

**CUSTOMER
SATISFACTION**

99%

APPROVAL RATING
FOR CANADA LINE

95–100%

APPROVAL RATING
FOR WILLIAM R.
BENNETT BRIDGE

98–99%

APPROVAL RATING
FOR CANCAP
AFGHANISTAN MISSION

Expertise

- Project, property & facility management
- Transportation
- Airports
- Industrial
- Defence & logistics

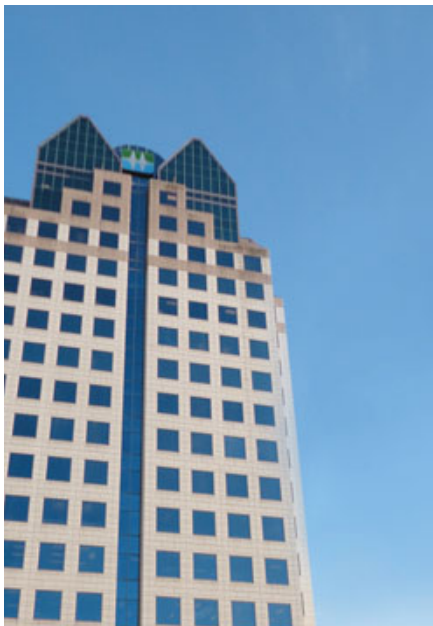
PROJECT, PROPERTY & FACILITY MANAGEMENT



Source: Jean Buithieu



We've assumed **operation and maintenance of Montreal's Maison symphonique concert hall. For the next 27 years**, we'll be responsible for all staff and facilities including the operation and maintenance of nine state-of-the-art acoustic panels that can be adjusted depending on whether the concert is acoustic or electric, Beethoven or Bartók.



BC Hydro chose us to manage all its buildings not related to power generation or transmission. We managed a seamless transition in the fourth quarter of 2011.

Health care facilities are a growing market for us. We have a 30-year mandate at Montreal's MUHC, and another for Restigouche psychiatric hospital centre in New Brunswick.



The Pearl-Qatar is a large man-made island off Qatar's coast. We manage a large development there, and we won a management contract for the Al Maha Academy in Doha.



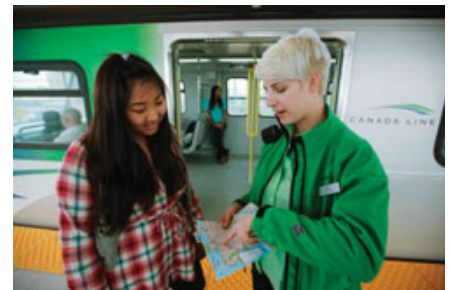
Our Canadian and Saudi offices are **working closely with Saudi Aramco to develop a strategy and a comprehensive operating procedures manual** for its iconic LEED Platinum-targeted King Abdullah Petroleum Studies and Research Centre.



We were awarded an operations and maintenance contract for the **Sherbourne Common water fountain complex in Toronto.**

Among our key stand-alone project management mandates are the **integration of CBC's radio and television operations, and contracts for libraries, courthouses and emergency response facilities** in Ontario and Quebec.

TRANSPORTATION



Source: TransLink



The Canada Line continues to exceed expectations. It scored a 99% rating for quality service. **The William R. Bennett Bridge also received an Excellent rating** for customer service.

We have been operating and maintaining the Brun-Way highway project in New Brunswick since 2005, and **will begin our O&M mandate at Calgary's Southeast Stoney Trail in 2013.**

AIRPORTS

We won four new airport management contracts in France: Toulouse-Francal for one year, Angoulême-Cognac for six years, Mayotte for 15 years, and Saint-Martin Grand Case for 25 years. The last two, in France's Indian Ocean and Caribbean territories, include commercial development and significant expansion work.

INDUSTRIAL

The Fouka desalination plant in Algeria is now in service. Elsewhere in the country we're operating and maintaining the Taksebt water treatment plant, and the Hadjret En Nouss and Skikda thermal power plants.

PROVIDING O&M SERVICES AT TAKSEBT, THE LARGEST POTABLE WATER FACILITY IN AFRICA.

We continue our operational support activities for Petrobras and Eletrobras in Brazil, providing on-site maintenance to the oil and gas and power sectors.



In Toronto, we've been operating a district energy and central utilities plant in the waterfront area for the last two years, and a thermal power plant at Pearson International Airport for the last six.

DEFENCE & LOGISTICS

DND renewed our in-service support contract for the Canadian Navy's minor warships and auxiliary vessels for another four years, with four one-year options.



Over the last six months of 2011, we set up, operated and closed out a logistical support base in Cyprus. It accommodated Canadian Forces troops withdrawing from the Middle East, providing air and seaport access, transportation, warehousing, heavy lift and ground handling services, accommodation, and office and administrative services.

OUR CANCAP TEAM HELPED TO SUCCESSFULLY CLOSE OUT CANADIAN FORCES DEPLOYMENT AT KANDAHAR IN AFGHANISTAN.



Work is progressing well at the 3,000-person camp we're building at ConocoPhillips' Surmont oil sands project in Alberta.



We're proud to provide temporary accommodation support for citizens of Slave Lake, Alberta as they continue to rebuild their homes and lives after one of the worst fires in Canadian history.

Infrastructure Concession Investments

We both invest in and manage ICI. We're able to take full or partial ownership of infrastructure, which we also often design, build, operate and maintain. With an integrated model that combines investment, financing, design, construction, and operations and maintenance, we can undertake any investment project.



Source: Stéphane Brügger

Our portfolio of ICI features some of the highest profile investments in Canada, and spans multiple industry sectors where we have complementary technical expertise. A number of our ICI have won project financing awards, and of those, the Canada Line, Astoria II and Montreal's new Maison symphonique concert hall have recently also been recognized for excellence in design and construction. Having the expertise to undertake every phase of a project's life cycle means we can incorporate features from the planning phase and increase efficiencies. In the case of brownfield projects, we can operate and maintain, expand and refurbish infrastructure as the need arises.

01 MONTREAL'S
MAISON
SYMPHONIQUE
02 ALTALINK



Our ICI portfolio continued to grow in 2011. We won three new concessions: a health care facility in New Brunswick and two airports on French territories; one on the island of Mayotte and the other on the island of Saint-Martin. We've also opened new offices in Toronto and Vancouver to be closer to our technical divisions and client markets. We continue to work independently and with our technical divisions to identify and develop opportunities in Canada and elsewhere. In 2011, we established a joint venture company with two local firms to develop road and highway PPP projects in India. We plan to develop, build, own and operate road and highway projects in India.

19
ICI assets
in
7
countries

We acquired the minority interest in AltaLink bringing our ownership from 77% to 100%.

CULTURAL & PUBLIC SERVICE BUILDINGS AND AIRPORTS

Montreal's new Maison symphonique concert hall won a Gold Award from the Canadian Council for Public-Private Partnerships.

The award honours governments and public institutions and their private sector partners that have demonstrated excellence and innovation in their PPPs. We have a 100% interest in Groupe Ovation, which owns and operates the concert hall.



The Restigouche Hospital Centre for psychiatric care is **New Brunswick's first health care PPP**. We'll design, build, commission and finance the facility and then assume certain operations and maintenance functions for 30 years. It is a LEED Silver-targeted building. We have a 100% interest in the PPP.



Construction is well underway at the **MUHC Glen Campus** in Montreal. Once completed it will be a 220,000-m² mega-complex with 20 operating rooms and 500 single-patient rooms. We have a 60% interest in MUHC.



The French government awarded us a **15-year concession contract for its airport on the island of Mayotte** in the Indian Ocean. We'll provide financing and commercial development services, build a new terminal building and related infrastructure, and operate and maintain the airport. We have a 100% interest in Mayotte Airport.

The Collectivité d'outre mer for the French island of Saint-Martin in the Caribbean awarded us a **25-year concession contract for Grand Case's airport**. The project scope includes financing, operations and maintenance, an expansion of the terminal and a runway extension. We have a 100% interest in St-Martin Grand-Case Airport.

MONTREAL'S
NEW MAISON
SYMPHONIQUE CONCERT
HALL WON A CANADIAN
COUNCIL FOR PUBLIC-PRIVATE
PARTNERSHIPS GOLD
AWARD FOR EXCELLENCE
AND INNOVATION
IN A PPP.

ROADS, BRIDGES & MASS TRANSIT SYSTEMS



Throughout 2011, construction work progressed on the 188-km Rayalseema Expressway, **our first concession investment in the highway sector in India**. The project continues to move towards the scheduled construction completion and operational start date in May 2013. We have a 36.9% interest in Rayalseema.

Construction continues on the southeast section of Calgary's Stoney Trail Ring Road.

It is a complex design/construction project for a 25-km, six-lane highway with nine interchanges, three flyovers and 27 bridge structures. We have a 50% interest in Stoney Trail.

407 ETR added four new 13-km lanes to Highway 407. Two lanes opened for service in September, and the other two will become operational as traffic volume increases in the future. By building all four lanes at the same time, 407 ETR optimized its construction costs and saved its customers the inconvenience of a second major construction project. Since 1999, **407 ETR has invested \$1.2 billion in construction and infrastructure for Highway 407**. We have a 16.77% interest in 407 ETR.

POWER & WATER

We acquired the remaining 23.08% ownership in AltaLink bringing our ownership to 100%.

It is Canada's only fully independent power transmission company, and is responsible for the operation and maintenance of about 12,000 km of transmission lines and over 270 substations in Alberta.



The **550-MW Astoria Energy II gas-fired thermal power plant achieved commercial operation in 2011**. We provided full EPCM, start-up and commissioning services for the plant, which is the first major generating facility to go into service in New York City in over five years. Owned by Astoria Energy II LLC, the plant's entire output will be sold to the New York Power Authority under a 20-year contract. We have an 18.5% interest in Astoria II.

Agrifood



With over 60 years of international experience in this sector, we can provide project management services for the full life cycle of a project.

We help make our clients' investments successful by integrating elements such as food security, respect for the environment, quality working conditions, personal and property safety, investment and operating cost optimization, and upgradeability.

Evian awarded us a lump sum turnkey mandate to expand and re-engineer its bottling plant in Amphion-les-Bains. We're also managing expansion work for Union Champagne, extending its reserve wine storage cellar and vat room to comply with production regulations.

We're doing design work for a new LEED Gold-targeted building and extensive renovations at Mars' 16,000-m² site in Pennsylvania. Our designs conform to Mars' sustainable development practices.

Sustainability was also a key component of our EPCM mandate at St Michel's new cookie production pilot plant. We introduced HQE processes and proposed a number of green solutions, such as recovering heat from the cold production units. We also built a geothermal vertical probe, requiring 30 wells, each 160 m deep, to provide independent heating and cooling capabilities.

The poultry agro-complex we're building for Crête d'Or on the island of Réunion will be equipped with the latest technology. Our designs will promote workstation ergonomics and reduce operating and maintenance costs. The complex will cover a total area of 25,000 m².

- 01** ST MICHEL PILOT PLANT
- 02** CRÊTE D'OR POULTRY AGRO-COMPLEX

EVIAN'S BOTTLING PLANT EXPANSION PROJECT:

6
million
litres/day

Industrial



Source: GEA Process Engineering

We have full-service capabilities in the manufacturing, industrial, chemical, fertilizer and sulphuric/phosphoric acid sectors. Our additional specialized expertise encompasses instrumentation and automation, material handling, machinery design, and filling and packaging lines.

We are a permanent licensee of world-class technologies for phosphoric and sulphuric acid.

Our EPCM work for Ajinomoto Eurolysine at its waste water facility in France will increase its de-nitrification capacity to comply with new nitrogen level regulations. Elsewhere in France, we completed a turnkey mandate at Groupe Salins' salt evapo-crystallization unit.

We're using our combined expertise in copper and SO₂ capture technology to modernize RTB Bor's copper smelter in Serbia. In the US, we've been working with Alcoa on its proprietary SO₂ scrubbing technology for the past five years. Our design work continues there, as does our ongoing services agreement for Lanxess' synthetic rubber production plant in Ontario. EPCM work is also ongoing at Saverglass' bottle production plant in the UAE.

Fertilizers and inorganic chemicals

OCP, the world's largest phosphate fertilizer supplier, awarded us three new EPCM contracts for phosphate beneficiation and slurry feeding plants in Morocco. In sulphuric acid, we're doing EPCM work for Omega's new sulphur-burning acid plant. Our scope of work includes relocating equipment and technology from its Florida facility to the new plant in Kazakhstan. In Jordan, we're upgrading and increasing production capacity at one phosphoric, and two sulphuric, acid plants for JPMC.

01 SASOL AMMONIUM NITRATE FACILITY

02 GROUPE SALIN'S SALT EVAPO-CRYSTALLIZATION UNIT

WE HAVE MAINTAINED AN EXEMPLARY SAFETY RECORD AT SASOL'S AMMONIUM NITRATE FACILITY IN SOUTH AFRICA:

2
years
of work

0
lost time
incidents

Pharmaceuticals & Biotechnology



We deliver complete process engineering, automation, commissioning, validation and construction management services to pharmaceutical, biotechnology and medical clients all over the world.

Our flexibility allows us to help international clients meet compliance challenges both locally and globally.

We're working with Sanofi-aventis in France to design a cleaner, less costly synthesis process for its new hydrocortisone production unit. Elsewhere in France, our work at existing facilities must be carried out without disrupting production: we're refurbishing Merck Serono's dry pharmaceutical anti-diabetic production units to bring them up to GMP/FDA standards, and we're extending and rebuilding all site utilities for Ceva at its sterile animal vaccination complex.

We also worked with Ceva in the US in 2011, completing an EPC mandate for a state-of-the-art greenfield biological facility to produce an FDA-compliant animal vaccine in Kansas City. In New England, our three-year engineering/construction services contract for a major pharmaceutical company continues in the Boston area, and we further increased our market presence in the region with contracts for Novartis and Genzyme.

In Ontario, we're completing a turnkey expansion mandate at Novocol's sterile injectables manufacturing plant, and our renovation and biotech process technology transfer work continues at Therapure Biopharma's biopharmaceutical facility.

In Korea, we have three projects underway designed to meet Korean, US and European regulatory requirements. We're conducting concept/design studies for Green Cross' multi-product biopharmaceutical plant, and the Korean Government hired us to design regional high-tech medical complex hubs in Osong and Daegu.

01 PHARMASCIENCE
02 CEVA PRODUCTION FACILITY

400
professionals
on
3
continents