





## BREAKING NEW GROUND

At Bechtel, we know that our customers' projects demonstrate progress. They bring opportunity for individuals and regions. Infrastructure efforts improve communication, as well as connect communities to commerce and citizens to vital services. Energy projects—from combined cycle to oil and gas—deliver reliable and sustainable access to power for future prosperity. Work in the mining industry delivers natural resources and new sources of revenue to developing regions. Government customers take on nuclear and environmental efforts that create a cleaner, safer society for future generations.

It is our responsibility to help our customers deliver on the promise of these projects and more. We work to ensure we protect the environment and conserve natural resources; support local communities, create new jobs and improve economies.

We are not motivated to be the largest engineering, procurement, and construction (EPC) company in the industry; we are determined to be the best.

We do that by anticipating trends, aligning our expertise with customers' needs, transforming delivery, building progress, and breaking new ground in everything we do.

#### To our customers and colleagues:

Every day, around the world, we aspire to achieve extraordinary results for our customers, build satisfying careers for our people, and deliver on our promises. In 2014, we stayed true to that focus.

We completed the Dulles Metrorail Expansion, one of the largest rail projects in the United States, as well as Hamad International Airport, one of the most modern airports in the world, in Qatar.

Elsewhere in the United States, in California's Mojave Desert, we delivered the award-winning Ivanpah Solar Electric Generating System, which is powering 140,000 homes with clean, solar energy and reducing carbon dioxide emissions by more than 400,000 tons per year. In Texas, Panda Temple and Panda Sherman, two of the country's cleanest combined-cycle plants, were completed and handed over to our customer ahead of schedule. Our project team at the Pueblo Chemical-Agent Destruction Pilot Plant, in Colorado, is completing systemization and was awarded the operations phase of the contract, important steps toward helping the U.S. meet its treaty obligations to eliminate its remaining inventory of chemical weapons.

We delivered the first cargo of liquefied natural gas (LNG) for export from Curtis Island on schedule for our customer, Queensland Curtis LNG (QCLNG), a BG Group company. This first-of-a-kind project is one of three ongoing Bechtel projects to launch a new coal seam gas industry in Queensland, Australia.

We completed the Caval Ridge metallurgical coal project under budget and three months ahead of schedule. This facility will increase Queensland's coal exports by 5.5 million metric tons per year.

In the UK, we finished the Reading Station expansion, which has doubled the capacity of one of the busiest stations outside of London. The new station was formally opened by Her Majesty Queen Elizabeth II in July 2014.

These accomplishments—and hundreds more—would not have been possible without the commitment, passion, expertise, and hard work of our 58,000 colleagues worldwide. By partnering with our customers, we are helping to deliver landmark projects that are fostering sustainable progress and helping local economies.



▲ Bill Dudley Chief Executive Officer

#### **Financial Performance**

Work-off revenue for 2014 totaled \$37.2 billion, down 5.6 percent from 2013. Our New Work Booked result, which fluctuates year to year, was significantly down at \$18.4 billion in comparison to our excellent 2013. Our 2014 bookings were impacted by capital cost cuts in the mining and





#### New Work Booked in billions of U.S. dollars



#### Backlog Revenue in billions of U.S. dollars





A Riley Bechtel Chairman of the Board



Brendan Bechtel President & Chief Operating Officer

energy sectors, compounded by uncertain world growth that caused many customers to defer anticipated awards into 2015. Our backlog, at \$70.5 billion, remains strong.

We look forward to 2015 in anticipation of important awards that have been in development for some time.

#### **New Business**

We are pleased that our customers continue to trust us to deliver their critical projects that span all industries.

In Canada, we broke ground on the Keeyask Generation and Infrastructure project. This new 695-megawatt powerhouse, in Manitoba, will provide energy to 400,000 homes

in Canada and parts of the northern United States. We are working with ExxonMobil on an ethylene plant in Texas, and we began work on a 750-megawatt combined-cycle generating station in Virginia. The U.S. Department of Energy reaffirmed its selection of the Bechtel-led team to manage the consolidation of two nuclear weapons facilities—the Pantex Plant, in Texas, and the Y-12 National Security Complex, in Tennessee—and build a uranium processing facility that will replace aging Cold War-era facilities.

The UK Ministry of Defence selected Bechtel to support its national security efforts by transforming its procurement processes to equip the British Armed Forces with necessary supplies. Following the successful delivery of Kosovo's first motorway ahead of schedule, the government turned to us to build the new 37-mile (60-kilometer) motorway linking Pristina, the capital, to neighboring Macedonia.

In Africa, Bechtel was selected to manage the construction of the Catembe Bridge in Maputo, Mozambique, and in the Middle East, we were selected to build a new alumina refinery in Abu Dhabi.

#### Safety

Public and project safety is—and always will be—paramount for Bechtel. In 2014, we had the best safety performance in our company's history with our lowest recordable incident rate. Eighty-five percent of all Bechtel locations completed the year without a single lost-time incident, and 11 of our projects recorded more than 10 million or more safe work hours. While we are proud of these achievements, we believe every incident, and therefore every occupational injury, is preventable. Zero incidents is the only acceptable goal, and we work to achieve it for every person, every day, everywhere.

#### **Poised for the Future**

In 2014, we took proactive steps to strengthen our business, drive opportunities in new markets, and streamline our cost structure to improve our competitiveness.

We consolidated five global business units into four; Infrastructure; Mining & Metals (M&M); Oil, Gas & Chemicals (OG&C); and Nuclear, Security & Environmental (NS&E).

We are increasing our focus on and investment in engineering skills, with ambition to achieve broad customer recognition as best engineer in our industry. We continue to develop new ways to deliver high-quality projects ahead of schedule and under budget.

We are proud to be shaping our industry with innovative approaches to deliver the complex, unique projects upon which our customers depend. Our new EPC Innovation Centers in Houston and London will push the limits of virtual project delivery and drive improvements in our integrated global EPC delivery model.

Low oil and natural gas prices combined with low world-wide growth and increasing global uncertainty create a challenging macroeconomic environment for EPC companies like Bechtel. However, we anticipate an excellent year in new awards in 2015 as many of our key prospects that have been in development for some time are expected to proceed despite the economic headwinds.

In 2015, we will continue to invest in our business for the long-term and look forward to working with our customers to break new ground, achieve new milestones, and deliver projects that will improve the world.

#### **Riley Bechtel**

Chairman of the Board

#### **Bill Dudley**

Chief Executive Officer

#### **Brendan Bechtel**

President & Chief Operating Officer

#### **Our Vision**

Be the world's premier engineering, construction, and project management organization by achieving extraordinary results for our customers, building satisfying careers for our people, and earning a fair return on the value we deliver.

#### **Our Values**

#### Ethics.

We are uncompromising in our integrity, honesty, and fairness.

#### Safety & Health.

We are relentless in keeping people safe from harm, and we provide a healthy work environment.

#### Quality.

We are passionate about excellence and doing our work right the first time. Our reputation depends on our delivered value in the eyes of every customer and community

#### People.

We inspire each other with important work full of purpose, challenging development opportunities, and rewarding careers. We aspire to be the employer of choice in our industry.

#### Culture.

We actively build a diverse, inclusive, and collaborative work environment where all views are welcomed, openness is encouraged, and teamwork and merit are cornerstones. We are proud of what we do and how we do it—and we enjoy doing it!

#### Relationships.

We build positive, long-term relationships with our customers, joint-venture partners, subcontractors, suppliers, and colleagues that are built on trust, respect, and collaboration.

#### Innovation.

We develop and apply world-class technology. We listen, learn, and seek out the best ideas. We attack complacency and continually improve.

#### Sustainability.

We improve the quality of life in communities where we work by respecting local cultures, engaging local people, and protecting the environment.

#### **Our Covenants**

Wherever we go and whatever we do, we:

#### Demonstrate Integrity.

Exercise the highest level of professional and ethical behavior.

#### Are Respectful.

Treat people with respect and dignity. Listen actively. Communicate in a timely and forthright manner. Never undermine colleagues.

#### Collaborate.

Ask for and welcome help; offer and give it freely. Mutually resolve ambiguity and conflict.

#### **Build Trust.**

Make commitments responsibly and always keep our word. Be candid while building shared understanding.

#### Deliver.

Set high aspirations, plan responsibly, and honor all commitments.

#### Learn It, Do It, Share It.

Be curious. Seek, share, and build upon experiences and lessons learned.

#### **Live Our Culture.**

Embrace, embody, and actively contribute to our Vision, Values & Covenants. Nurture a proud legacy.

#### 1. Pacific NorthWest LNG:

Providing front-end engineering design for a proposed liquefied natural gas facility, in British Columbia, for Pacific NorthWest LNG.

### 2. Kitimat Modernization Project: Expanding and modern-

**Project:** Expanding and modernizing a 57-year-old aluminum smelter and associated hydroelectric tunnels, in British Columbia, for Rio Tinto Alcan.

3. Tilbury LNG: Adding new storage capacity and increasing liquefaction capacity at the Tilbury LNG facility, in British Columbia, for FortisBC.

#### 4. U.S. National Research

Institutions: Managing Lawrence Livermore and Los Alamos National Laboratories, in California and New Mexico, respectively, for the U.S. Department of Energy.

## 5. Hanford Waste Treatment & Immobilization Project:

Building a first-of-a-kind facility to treat radioactive liquid waste at a former nuclear production site in Washington state for the U.S. Department of Energy.

#### 6. Surmont Phase 2:

Designing and managing construction of a steam-assisted gravity drainage facility, in Alberta, for ConocoPhillips and Total.

### 7. Hanna Region Transmission Development:

Expanding and upgrading electrical transmission systems, in Alberta. for ATCO.

## 8. Chemical Agent-Destruction Pilot Plant Projects:

Eliminating chemical weapon stockpiles at sites, in Colorado and Kentucky, for the U.S. Department of Defense.

#### 9. Panda Power Projects:

Constructing three 758megawatt and one 778-megawatt natural gas-fired combined-cycle facilities, in Texas and Virginia, respectively, for Panda Power Funds.

#### 10. Corpus Christi LNG:

Performing engineering, procurement, and construction services for three LNG trains and related facilities being developed near Corpus Christi, Texas, for a subsidiary of Cheniere Energy, Inc.

#### 11. Wolf Creek Generating

**Station:** Installing buried and aboveground water piping as well as excavating and placing pipe in the cooling lake.

### 12. Keeyask Generation & Infrastructure Project:

Constructing the 695-megawatt hydroelectric power station on the lower Nelson River, in northern Manitoba, Canada, for Manitoba Hydro.

#### 13. North American Growth

**Project:** Designing and building an ethylene plant for ExxonMobil at the Baytown Complex, in Texas.

**14. Sabine Pass LNG:** Designing and constructing the first four trains of a natural gas liquefaction plant, in Louisiana, for Cheniere Energy Partners.

**15. Live Oak LNG:** Providing engineering and design services to develop a liquefied natural gas export terminal, in Louisiana, for Live Oak LNG LLC, a subsidiary of Parallax Energy LLC.

#### 16. Watts Bar Generating

**Station:** Completing engineering and construction of Unit 2 at a nuclear generating station, in Tennessee, for the Tennessee Valley Authority.

#### 17. U.S. Nuclear Security

Enterprise: Managing and operating the Y-12 National Security Complex, in Tennessee, and the Pantex Plant, in Texas, and building the new Uranium Processing Facility, for the U.S. Department of Energy.

## 18. Davis-Besse Nuclear Power Station:

Completed replacement of two steam generators and a reactor pressure vessel head at a 900-megawatt nuclear power plant, in Ohio, for FirstEnergy Nuclear Operating Company.

#### 19. Savannah River Remediation Project:

Remediating radioactive and hazardous underground waste tanks, in South Carolina, for the U.S. Department of Energy.

**20. Shell Polymer Plant:** Performing front-end engineering and design for a Shell Chemical polymer plant, in Pennsylvania.

#### 21. Naval Nuclear Propulsion

**Plants:** Managing atomic power laboratories as well as propulsion plant design and procurement, in New York and Pennsylvania, for the U.S. Department of Energy and the U.S. Navy.

22. Dulles Corridor Metrorail Extension: Completed construction of an extension of the Metrorail, in Northern Virginia, for the Metropolitan Washington Airports Authority.

#### 23. Las Bambas Mine:

Constructing a greenfield copper concentrator project, in the Peruvian Andes, for MMG.

#### 24. Escondida Water Supply:

Building a first-of-a-kind water system to desalinate and deliver sustainable freshwater to the mine, in the Atacama Desert, for BHP Billiton.

#### 25. Escondida Organic Growth

**Project 1:** Decommissioning and demolishing a concentrator in the Chilean Andes to make way for a new one to process high-grade copper ore, for BHP Billiton.

**26. MetrôRio Project:** Providing project management services to deliver the new six-station, 10-mile (16-kilometer) line 4 of the subway system in Rio de Janeiro, for MetrôRio.

27. Sellafield Pile Fuel Cladding Silo Retrieval Project: Designing and building silo doors and modules for retrieval, handling, and packaging of legacy radioactive waste, in North West England, for Sellafield Ltd.



#### 28. Defence Equipment &

Support: Working with the UK Ministry of Defence to implement improvements in purchasing, project management, and key equipment programs, for its naval and air forces.

#### 29. Crossrail & Reading

Program: Upgrading on-network and station improvements for Network Rail.

- **30. Crossrail:** Managing design and construction of twin 13-mile (21-kilometer) tunnels and associated underground stations and systems on a new commuter railway, for Crossrail Ltd.
- 31. Gatwick Airport: Providing project management oversight for a capital investment program south of London that includes an expansion of two terminals and improvements to the airfield, for Gatwick Airport Limited.

#### 32. Gabon Infrastructure:

Executing the build-out of national infrastructure to support sustainable economic development, for the government of Gabon.

Building Route 6, a new 37-mile (60-kilometer) motorway linking the capital, Pristina, to neighboring Macedonia, for the government of Kosovo.

35. West Nile Delta Gas **Processing Plant: Providing EPC** services for an onshore gas plant near Alexandria, Egypt, for BP.

#### 36. Chornobyl Shelter **Implementation Plan:**

Managing an integrated international team overseeing the design and construction of an enclosure for a nuclear reactor, for the European Bank for Reconstruction and Development.

- 37. Waad Al Shamaal City **Development: Providing** program management and frontend engineering and design as part of the King Abdullah project for the North Promise Industrial Mineral City, for Saudi Arabian Mining Company (Ma'aden).
- 38. South Caucus Pipeline Expansion: Performing construction and commissioning support for the project facilities, in the country of Georgia, for BP.

39. Riyadh Metro: Designing and building two metro lines in Saudi Arabia's capital of Riyadh that will form the backbone of the city's public transportation network, for the High Commission for the Development of ArRiyadh.

#### 40. Hamad International

Airport: Completed construction on this new airport, which features 41 gates and two of the world's longest runways, capable of handling superjumbo jets, for the government of Qatar.

#### 41. Muscat International

Airport: Performing engineering, procurement, and construction services to create a 28-gate international airport terminal and associated facilities, for the Ministry of Transportation and Communications of the Sultanate of Oman.

42. Tengiz Expansion: Providing engineering, procurement and construction services to add four crude-oil storage tanks at the Tengizchevroil oil production facility, in Tengiz, Kazakhstan.

43. Wheatstone LNG: Building a Bechtel-designed two-train LNG plant and related facilities in Western Australia, for Chevron.

#### 44. Queensland LNG Projects:

Designing and building three LNG facilities fed by coal-seam gas on Curtis Island in Queensland, for Australia Pacific LNG, Gladstone LNG, and Queensland Curtis LNG.

#### 45. Caval Ridge Mine Project:

Completed construction of a greenfield open-cut coal mine with the capacity to produce up to 5.5 metric tons per year of quality hard coking coal in Queensland, for BHP Billiton.

#### 46. Hay Point Coal Terminal **Expansion Stage 3 Project:**

Increasing the capacity of this terminal in Queensland from 44 to 55 metric tons per year with the construction of a third berth, for BHP Billiton.



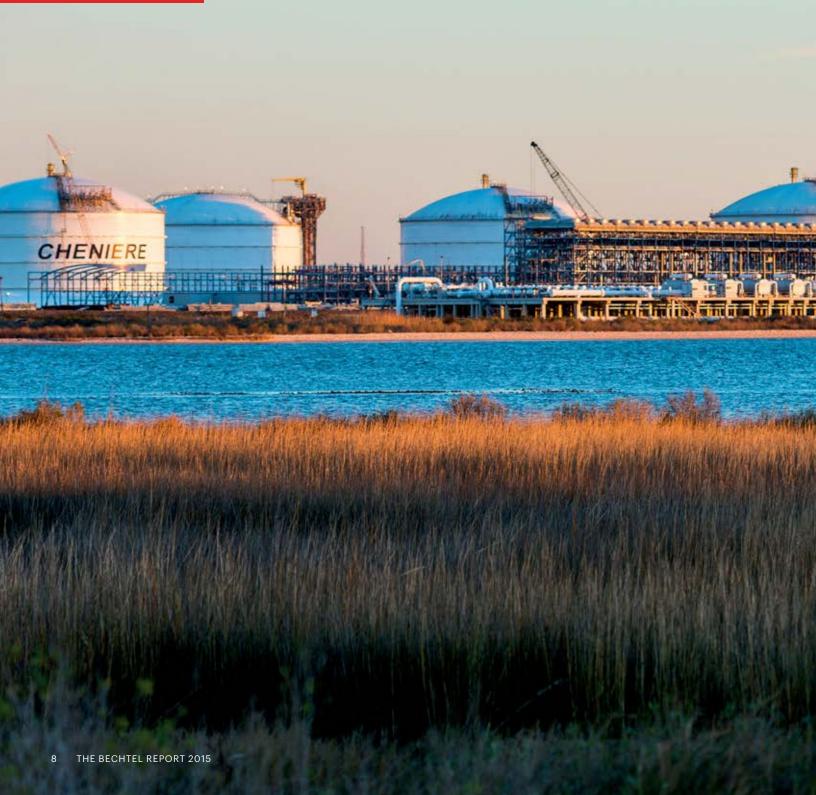
INFRASTRUCTURE

MINING & METALS

NUCLEAR. SECURITY & ENVIRONMENTAL

OIL, GAS & CHEMICALS

# **ANTICIPATING**



29°44'56"N | 93°52'39" W

Sabine Pass Liquefaction Project LA, USA

# **TRENDS**

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The oil, gas, and chemicals industry has shifted dramatically. The drop in oil and gas prices, alternative energy sources, expanding competition, economic turmoil, and robust reserves have steadily increased the supply of energy. At the same time, demand is growing at a slower pace, causing producers and refiners to prioritize and reduce capital expenditures.





Queensland Curtis LNG Queensland

# Oil, Gas & Chemicals

Bechtel is responsible for a third of the world's LNG liquefaction capacity under construction, with projects on three continents. Led by the robust LNG work, our OG&C business unit continued its strong performance worldwide.

On Curtis Island, in Queensland, Australia, our three simultaneous construction projects for three separate customers—Queensland Curtis LNG (QCLNG), Gladstone LNG, and Australia Pacific LNG—represent the largest concentration of private capital investment in Australia's history. We continue to achieve unprecedented firsts in the building of three adjacent LNG liquefaction plants, including starting

LNG production for QCLNG on schedule, delivering all 260 modules required for the three plants, and employing and training 400 adult apprentices—the largest single class of apprentices in Australian history.

In North America, we are working with Cheniere Energy, Inc. to transform the Sabine Pass terminal, in Louisiana, into the first LNG export facility in the contiguous United States. In 2014, 6,000 workers were employed, and we made significant progress on the project. First exports are scheduled for late 2015. Elsewhere in the region, we were selected for two other LNG export facilities: the design and build of a second facility in Corpus Christi, Texas, for Cheniere; and the design of a midscale liquefaction facility and export terminal in Louisiana, for Parallax.

Bechtel is a global leader in the integrated design, procurement, construction, and project management of oil, chemical, and natural gas processing facilities. Our customers rely on our expertise to deliver liquefied natural gas capacity, refineries and petrochemical plants, pipelines, offshore facilities, tanks, and terminal facilities.

Construction began on a new liquefaction train at the Tilbury LNG plant in British Columbia, Canada, for FortisBC. The expansion includes a new 1.6-million-cubic-foot (46,000-cubic-meter) full-containment storage tank.

Our partnership with Linde—a leading supplier of industrial, process, and specialty gases—resulted in two new projects. In June, we started construction of a multibillion-dollar ethylene plant at ExxonMobil's Baytown Complex, in Texas. Shell Chemical selected Bechtel to perform front-end engineering and design work for a multibillion-dollar ethylene and polymer plant, in Pennsylvania.

#### **Market Opportunities**

 Mexico: Oil and gas exploration is growing in part due to legislative changes that opened up the market to global partnerships.

- Sub-Saharan Africa: Governments seek to tap into their nation's natural resources to produce energy and to apply revenues derived from exports to fund needed infrastructure projects.
- LNG: There is an emerging market for midsize facilities. These smaller solutions are less capital-intensive, can be constructed rapidly, and are easily aligned with existing pipelines. In 2014, dozens of companies in the United States submitted applications to the U.S. Department of Energy to build LNG export facilities though recent price changes are likely to cause the shale gas industry to not sustain its recent and rapid development.
- Petrochemicals: Cost-competitive natural gas is helping the U.S. petrochemical industry, which uses the gas and its byproducts, like ethane and propane, in manufacturing. We see a marked increase for fertilizer, propane dehydrogenation, and ethane cracker facilities.

Queensland Curtis LNG Queensland

#### **BREAKING NEW GROUND:**

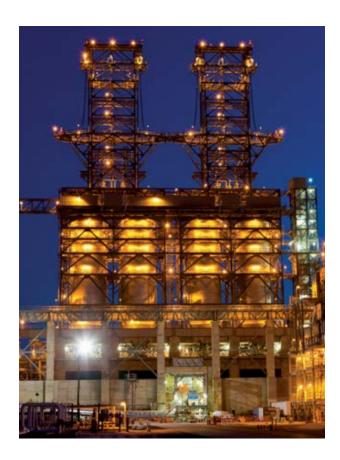
### Putting All The Pieces Together

Modularization plays a vital role in the success of our Australian LNG projects. We construct hundreds of modules for these projects—many of which weigh up to 5,000 tons—in the yards we manage in China, Indonesia, Malaysia, the Philippines, and Thailand. We then ship them to the project sites, where they are connected and tested.

This approach provides our customers with certainty of cost and schedule, improves safety and quality, and mitigates project delivery risks.







### Bechtel Hydrocarbon Technology Solutions

Our standalone Center of Excellence—Bechtel Hydrocarbon Technology Solutions—provides our customers with innovative solutions, using the latest technologies, built on the foundation of our unequaled knowledge of project delivery. In 2014, we acquired Chevron's wastewater treatment technology, which improves the efficiency of petroleum refineries, and we signed a license agreement with the INA-Industrija nafte, d.d., for the process design of a delayed coking unit, in Croatia.

#### **Select 2014 Accomplishments**

- Completed Chevron's new lubricants manufacturing facility in Pascagoula, Mississippi; the plant will manufacture 25,000 barrels per day of premium base oil, the main ingredient in the production of top-tier motor oil
- Awarded a contract to support the South Caucus Pipeline Expansion project, in the country of Georgia
- Awarded a contract to provide engineering, procurement, and construction services to build four crude-oil storage tanks at the Tengizchevroil oil production facility, in Tengiz, Kazakhstan

#### **Looking Forward**

We are optimistic about 2015 and beyond as we balance and align prospects with the geopolitical and economic climate. To better meet evolving customer needs and fast-changing market demands, we are:

- Diversifying our customer base and offerings in our LNG, offshore, onshore, petrochemicals, tanks, and pipeline businesses
- Expanding our presence in North America, Africa, the Middle East, and Southeast Asia
- Positioning the business to take advantage of the emerging smaller-scale LNG market
- Employing innovative processes, such as our integrated self-perform modularization program
- Enhancing our world-class direct-hire construction execution capability in order to respond to our customers' challenges to control project costs, ensure schedule certainty, and raise financing

We continue to pursue work around the globe where the business environment aligns with our values and the market conditions support the development of projects.



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# **ALIGNING**



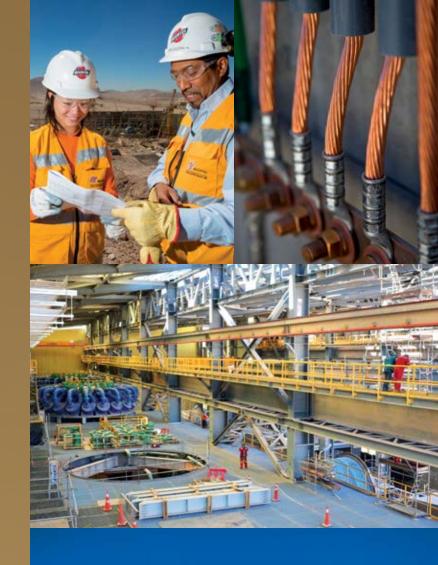
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Escondida Organic Growth Project 1 Chile

## **EXPERTISE**

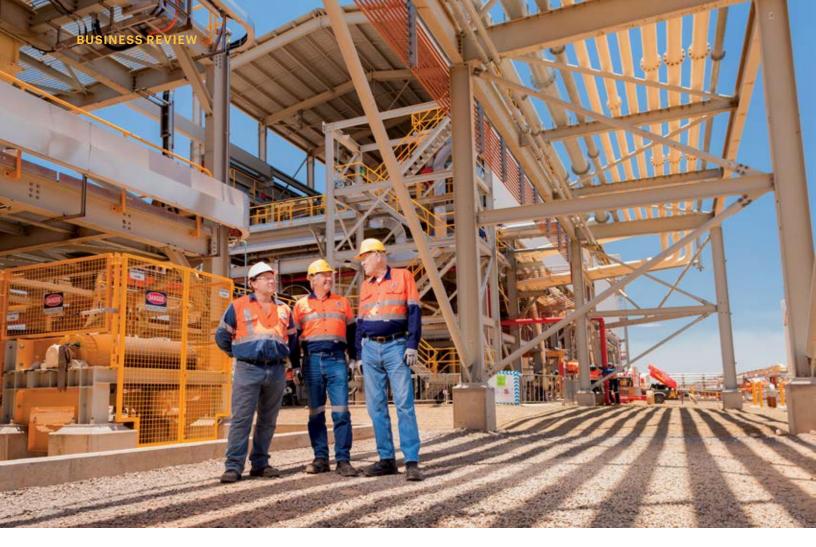
It was a challenging year for the mining and metals industry. Declining prices in commodities led to a significant contraction in the resource market, resulting in lower capital expenditures and project delays. The industry is also facing the difficult challenges of establishing affordable access to the energy and water needed to operate mines, and of managing public perception.

Recognizing these pressures, we sought new ways to help our customers streamline processes and reduce costs to best achieve their goals.









Caval Ridge Metallurgical Coal Project Queensland

## Mining & Metals

Bechtel has adapted to market changes and customer needs for 117 years. For our mining and metals customers, we broadened our offerings to include industrial water supply systems, power, supporting infrastructure, waste management, and pipelines to help them achieve cost efficiencies and provide a single point of accountability across their projects.

In Peru, we continued construction on a greenfield copper concentrator at Las Bambas, in the Peruvian Andes. This year we applied Six Sigma techniques to improve productivity at the project, and we topped out steel on the grinding structure.

In Chile, our work building the world's highest-capacity, single-line copper concentrator, at BHP Billiton's Organic Growth Project 1 (OGP1), is progressing at the Escondida mine in the Atacama Desert. We also began work on a first-of-a-kind water system to desalinate and deliver sustainable freshwater to the mine, which is considered the world's largest producer of copper, from an ocean intake more than 112 miles (180 kilometers) away.

In central Queensland, Australia, we worked on the final two projects associated with the Brisbane Hub, which was created to facilitate fast, smooth execution of projects for industry leader BHP Billiton. The Caval Ridge Metallurgical Coal project, which is the largest greenfield coal mine in Australia, achieved world-class safety, environmental, and health standards. At the nearby Hay Point Coal Terminal, we continued to make progress on the facility's expansion. The first coal load took place in December, and the project is expected to be complete in mid-2015. To reduce costs, we

Bechtel is a global leader in the design, procurement, construction, and project management of natural resource processing facilities and infrastructure. Our expertise includes ferrous, nonferrous, precious, and light metals, as well as industrial metals. We excel at logistically challenging projects, often in remote locations, and help our customers produce everything from aluminum to zinc.

employed an innovative modularization approach similar to the one used on Bechtel's four Australian LNG projects.

We continue to make headway into the aluminum market in the Middle East. The successful completion of a feasibility study in early 2014 led to the award of a contract to build the Shaheen Alumina Refinery Project, in the United Arab Emirates (UAE). Bechtel has worked in the region for more than 70 years and in the UAE for more than 50 years—positioning us well for new mining and metals work needed to support the region's growing industrialization.

#### **Select 2014 Accomplishments**

Achieved more than 5 million hours without a lost-time incident at the Caval Ridge Mine project, in Australia; 10 million hours on Las Bambas, in Peru; and surpassed 10 million hours on OGP1, in Chile

 Completed the Caval Ridge Metallurgical Coal project four months ahead of schedule and under budget  Garnered an Award of Merit for Global Best Projects from Engineering News-Record for the Ras Al Khair aluminum smelter, which we completed in 2013

#### **Looking Forward**

We will continue to support our customers and adapt to market dynamics. Specifically, we are:

- Working closely with existing customers and partners to develop innovative, more cost-effective ways to best achieve their goals
- Expanding our portfolio to offer customers a suite of services that combines the expertise of Bechtel, including industry water solutions, infrastructure, and energy
- Broadening our customer base and geographic footprint
- Exploring new ways to apply technologies to address customer needs

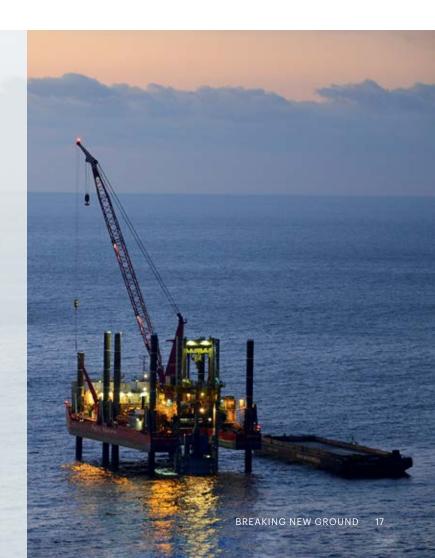
**Escondida Water Supply** Chile

#### BREAKING NEW GROUND:

#### From the Ocean to the Andes

In Chile, we are creating a first-of-a-kind water system that will desalinate and deliver sustainable freshwater to the world's largest copper mine. The water will travel more than 112 miles (180 kilometers)—from the ocean and through the desert—to its destination 10,500 feet (3,200 meters) above sea level, in the Andes Mountains.

The project is groundbreaking not only in its scale and complexity, but also in its execution. It requires the building of one of the world's largest desalination facilities, two massive pipelines, and four high-pressure pumping stations.





38°15'16"N | 104°36'33"W

Chemical Agent-Destruction Pilot Project-Pueblo CO, USA

## **DELIVERY**

Government customers face unprecedented challenges critical to national security, including weapons demilitarization, environmental cleanup, and facilities modernization. These missions often require one- or first-of-a-kind solutions, and they must be achieved regardless of shifts in the regulatory, political, and budgetary landscape.

Commercial customers in the nuclear power industry are addressing similar pressures. Many utilities have turned away from building new nuclear units, focusing instead on cutting costs and extending the operating life of existing facilities.

Bechtel is focusing our efforts on transforming mission delivery so our customers can achieve mission success.





Hanford Waste Treatment and Immobilization Plant Washington, USA

# Nuclear, Security & Environmental

The Nuclear Security & Environmental business unit had a solid year. We set a record for new work, despite shrinking government budgets and the near-term uncertainty in the nuclear industry.

This year, we consolidated our nuclear, environmental, and security businesses to better deliver across our customers' project life cycle—from research and development to decontamination and decommissioning.

By forming co-operative solutions with government customers, delivering ongoing innovation, and combining

our expertise, we help our government and commercial customers navigate a changing environment and achieve mission success.

Among the notable wins in 2014 was the selection by the UK Ministry of Defence to help transform the delivery of military support services, and to drive improvements in purchasing, project management, and key equipment programs that support the Royal Navy and Air Force.

In the United States, the project team at the Pueblo Chemical Agent-Destruction Pilot Plant received the American Institute of Chemical Engineer's 2014 Engineering and Construction Award for successfully completing the design and construction of the plant. In 2015, the United States will

Bechtel delivers world-class engineering, procurement, construction, operations, and project management services to government and commercial customers to addresses challenges that profoundly affect local communities, nations, and the world. Our expertise spans activities in applications as diverse as defense, global security, nuclear energy, and environmental stewardship.

make a significant step toward complying with a treaty to destroy all of its chemical weapons and to begin neutralizing 2,600 tons of aging mustard agents at this facility.

Significant progress was made at the Hanford Waste Treatment and Immobilization Project, a one-of-a-kind complex that will immobilize nuclear waste. For a second time, the Bechtel-led project earned Star status, the highest recognition in worker safety, from the U.S. Department of Energy's Voluntary Protection Programs.

Bechtel-led Consolidated Nuclear Security, LLC was selected by the Department of Energy for the combined management of the Pantex Plant, in Texas, and the Y-12

National Security Complex, in Tennessee—two nuclear security weapons facilities separated by more than 1,000 miles (1,609 kilometers). This approach will yield significant savings during the course of the contract. Bechtel will also design and construct the Uranium Processing Facility at Y-12, a critical national security resource that will replace aging Cold War-era facilities.

The Bettis and Knolls Atomic Power Laboratories, two world-class research and development facilities operated by Bechtel Marine Propulsion Corporation, were consolidated into a single organization in continued support of the U.S. Navy's nuclear-powered submarines and aircraft carriers.

Savannah River Remediation
South Carolina, USA

#### BREAKING NEW GROUND:

## Accelerating the Nuclear Cleanup at Savannah River

Five decades of nuclear materials, including plutonium and tritium, produced for use in U.S. weapons, created nearly 37 million gallons (140 million liters) of liquid radioactive waste. That waste is stored in underground steel tanks along the Savannah River, which stretches for 314 miles (505 kilometers) to the Atlantic Ocean and borders the states of Georgia and South Carolina.

Bechtel is part of the team contracted by the U.S. Department of Energy that is operating the Savannah River Remediation liquid waste complex and remediating radioactive and hazardous underground waste tanks. To date, we have closed more than 300 of the site's 515 waste areas, and we are accelerating the cleanup lifecycle by 13 years, which will save the agency more than \$450 million.





#### 2014 Select Accomplishments

- Completed the replacement of two steam generators and the reactor coolant piping at the Davis-Besse Nuclear Power Station, in Ohio. This pressurized water reactor located 35 miles (56 kilometers) east of Toledo, produces 908 megawatts of electricity, enough to power 450,000 homes.
- Received the prestigious James S. Cogswell Outstanding Industrial Security Achievement Award from the U.S. Department of Defense's Defense Security Service. Less than 1 percent of more than 13,000 cleared contractors receive this annual award, which recognizes how we maintain the highest standards for protection of the nation's classified assets.
- Concluded open vessel and primary cold hydrostatic testing at the Watts Bar Unit 2 Completion project, in Tennessee. This will be the first U.S. nuclear unit built this century. Scheduled for completion in 2015, Watts Bar Unit 2 will generate enough carbon-free electricity to power 650,000 homes.
- Honored by the DOE with a Capital Project of the Year designation for the Radiological Laboratory and Utility Office Building at the Los Alamos National Laboratory. Also earned six 2014 R&D 100 Awards, known in the industry as the Oscars® of Invention, for applications in national security, energy, and health sciences at the Lawrence Livermore and Los Alamos laboratories, managed and operated by a partnership led by the University of California and Bechtel.
- Completed ahead of schedule one of the nation's largest nuclear power plant piping replacement projects, at the Wolf Creek Generating Station, in Kansas. This is a significant upgrade that improved the overall safety and reliability of the plant, which provides clean, reliable, and safe power to thousands of people.
- Oversaw the connection of the halves of the arches for the Chornobyl Shelter Implementation Plan.

Bechtel has performed engineering and construction services on 85 percent of the operating nuclear plants in the United States. We remain committed to assisting our power customers in every stage of their business.

#### **Looking Forward**

We are focused on supporting our customers on existing projects and leveraging our expertise to support new-build programs for European owners. The best opportunity is in the UK, where an aging nuclear and coal fleet must be replaced by the mid-2020s. We are working with EDF Energy to support management of the Hinkley Point project and will make a considerable investment to develop our UK nuclear project execution capability.

We expect to grow the business by partnering with our customers to develop new processes and techniques to safely and cost effectively meet mission requirements. As part of our strategy, we are:

- Growing our capabilities to provide services throughout the life cycle of customers' facilities
- Transforming mission delivery for our government customers by leveraging our project management principles and commercial approaches
- Strengthening our next generation of expertise through knowledge-management systems and full life-cycle support
- Expanding our customer base and global footprint

We have also established a permanent engineering and procurement execution center in Virginia. The facility provides a centralized workforce that can quickly respond to customer needs.

▼ Watts Bar Unit 2 Completion Project Tennessee, USA





#### **INFRASTRUCTURE**

MINING & METALS

NUCLEAR, SECURITY & ENVIRONMENTAL

OIL, GAS & CHEMICALS

# BUILDING



**Crossrail & Reading Program** UK

## **PROGRESS**

The rapid increase in the worldwide population and the rise of urbanization are driving demand for resilient and reliable infrastructure. The world's population is projected to increase from some 7 billion today to 9.6 billion by 2050. Meeting this growth requires the equivalent of a new city of 1.5 million people to be built every week for the next 35 years.

At Bechtel, infrastructure is more than just steel, concrete, and asphalt. It is about developing thriving economies, connecting communities, and building for the future.





▲ Ivanpah Solar Electric Generating System California, USA

## Infrastructure

Our Infrastructure business performed well in 2014. We received an extension on a signature master planning and urban development program: the Gabon National Infrastructure project, in Africa.

In Gabon, we helped the government develop a \$25 billion national infrastructure master plan and are now supporting the delivery of hundreds of projects such as roads, water, power, schools, hospitals, and housing. Building on our success at Jubail, we are currently helping to define four new economic cities in Saudi Arabia.

A Bechtel joint venture was selected to build a new 37-mile (60-kilometer) motorway linking Kosovo's capital, Pristina, to

Macedonia. This new award comes on the heels of the successful completion of the country's first motorway, Route 7, which was delivered by our team a year ahead of schedule.

Construction started on the largest new hydroelectric project in Canada. The 695-megawatt Keeyask Generation and Infrastructure project will provide power to Manitoba and the northern United States. It is part of a larger plan to develop hydroelectric power in Canada, and several power stations are in various stages of study and development. Hydropower offers key benefits to the regions it serves: It's clean, it's domestic, and it's renewable. Africa also offers excellent potential for hydroelectric projects.

Bechtel is responding to the worldwide demand for energy by delivering a variety of thermal, renewable energy, and We design and build vital infrastructure—rail systems, roads, bridges, aviation facilities, power plants, transmission networks, hydroelectric installations, communications networks, water systems, and ports—to improve quality of life and foster sustainable economic growth the world over.

transmission solutions that power the growth of global infrastructure. We are taking advantage of an innovative standard plant and execution model to build four of the cleanest gas-fueled power plants in the United States for Panda Power Funds. These clean gas-fueled plants can achieve full power production within an hour, offsetting the effect of fluctuating electricity output from renewable energy sources. When completed, the four plants will collectively generate enough electricity to power approximately 4 million homes. In Virginia, we were awarded a contract to build a new 778-megawatt natural gas-fueled, combine-cycle power plant that will use reclaimed wastewater to cool the plant, conserving the Commonwealth's natural supply of drinking water. Further,

the facility will be built along existing transmission lines, eliminating the need for additional power lines.

We also completed the Ivanpah Solar Electric Generating System, the world's largest solar thermal facility. Located in Southern California's Mojave Desert, Ivanpah was named *POWER* magazine's 2014 Plant of the Year. This award is presented to projects that lead the industry in the successful deployment of advanced technology while minimizing environmental impact.

We continue to support the deployment of wireless technology in six major metropolitan markets, providing engineering, procurement, and construction services across 16.000 cellular sites.

► Hanna Region Transmission Development Alberta

#### **BREAKING NEW GROUND:**

### **Powering Progress**

The Hanna Region Transmission Development project in Alberta, completed for ATCO Electric this year, was extensive. About 60 percent of the area where the project was built passed through protected pasture, native grasses, and wetlands that are also popular wildlife breeding grounds.

To minimize the impact on these sensitive areas, the project team used a mobile app to ensure that the field team had customized information about accessing land parcels and environmental regulations. Automated checklists built into the app allowed the team to conduct environmental and safety checks while monitoring the project for quality compliance. The team also had special handheld devices that allowed them to see the boundaries of the environmentally sensitive areas and make decisions about next steps while in the field.





#### Waad Al Shamaal City Development Saudi Arabia

#### 2014 Select Accomplishments

- Broke ground on the \$10 billion landmark Riyadh Metro project, in Saudi Arabia
- Completed the massive expansion of Reading train station, in London, on schedule and within budget
- Passed the halfway mark on our work on the Crossrail commuter line, a project that includes 26 miles (42 kilometers) of new rail tunnels under London
- Completed the Dulles Corridor Metrorail project, one of the largest infrastructure projects in the United States
- Completed a full passenger opening of Hamad International Airport, in Qatar
- Completed the Eastern Alberta Transmission Line, in Canada—building more than 220 miles (354 kilometers) of transmission line

#### **Looking Forward**

The future of infrastructure is extremely promising. We expect exponential demand for rail, primarily in the Middle East, where developing public transport networks to connect Gulf Cooperation Countries is a regional priority. In the UK, large-scale investments are being made to improve the existing network to accommodate the projected increase in passenger demand. Growth in Eastern Europe and North America has many municipalities seeking incentive financing for much-needed infrastructure projects: roads, highways, and bridges. Airports worldwide require modernization as facilities age, travel volume increases, and airlines move toward high-frequency, low-cost aircraft.

Access to sustainable and reliable energy will continue to be essential to development and a priority in developed regions. We are taking steps to increase our presence in core regional markets—the Middle East, the Americas, and Europe—and pursuing opportunities in Sub-Saharan Africa and Asia. As part of our strategic focus, we are also:



- Using our master-planning expertise to help governments develop new economic cities and expand and upgrade airports
- Pursuing public-private partnerships, particularly in North America, to meet the needs of governmental organizations interested in attracting private investment to fund infrastructure development
- Adapting our tunneling, large pipeline, and heavy civil capabilities to supply and convey large amounts of water to our industrial, government, and utility customers in response to increased scarcity and higher demands
- Designing and constructing critical infrastructure components, such as roads, ports, and bridges, for major LNG facilities



Engineers Without Borders,
Queensland

Students learn how to build water filters out of common household materials.

# Creating Opportunity

Our focus extends far beyond the project. We are committed to building opportunity everywhere we work, by sharing our time, talents, and resources with local communities and partners to improve quality of life. For us, that means we roll up our sleeves and get the job done.

We partner with five international nonprofit organizations—DiscoverE, Engineers Without Borders, FIRST® Robotics, Junior Achievement®, and Oceanic Exploration Trust—our Signature Programs. In 2014, thousands of colleagues and family members at more than 30 Bechtel locations on six continents actively participated in these programs.

In 2014, we:

- Added new Engineers Without Borders (EWB) programs in Malaysia and Virginia, USA; new FIRST® Robotics partnerships in Florida and Kentucky, USA; and Junior Achievement® (JA) programs in Dubai, UAE; Kentucky, USA; and Peru
- Assisted more than 67,500 people (directly and indirectly) from 19 Bechtel grants to EWB chapters
- Reached nearly 25,000 students through Bechtel funding of FIRST programs in the United States and throughout the world

- Engaged 15,000 young people through JA programs in 13 countries
- Worked with more than 2,500 students through classroom visits and hands-on learning activities with DiscoverE
- Supported the Nautilus expedition of Oceanic Exploration Trust through volunteering, events, and university partnerships

#### **Diversity**

We are proud to be recognized as a top employer for women and minority engineers, earning the Best Diversity Company designation by *Engineering and Information Technology* magazine for four consecutive years. We also were named a 2014 Military Friendly Employer® by the publishers of *G.I. Jobs* and *Military Spouse*. In the UK, nearly a quarter of our colleagues are women, including 14 percent of the engineering population—which is more than twice the UK industry average.

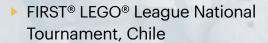
#### Sustainability

In 2014, we strengthened our commitment to deliver sustainable solutions for long-term prosperity. We helped reduce particulate emissions by 85 percent on the Crossrail project. The U.S. Department of Energy recognized several of our projects with 12 sustainability awards. We spent more than \$78 million on goods and services from local suppliers in 16 remote Peruvian towns in the Andes. In these ways and more, we continue to seek approaches to improve outcomes for our customers and the societies that benefit from them



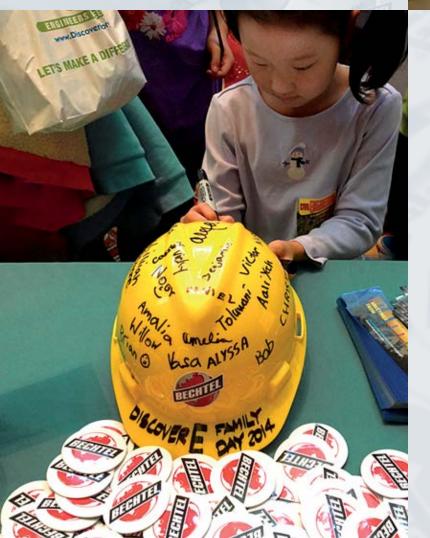
 Mentoring A Girl In Construction (MAGIC), USA

Our colleagues spent the week at a MAGIC camp in Houston, Texas.



Bechtel's BechBot team received the Strategy and Innovation Award in the Robot Design Category at the FIRST LEGO League - Chile final.





### DiscoverE, USA

During the annual family engineering day at the National Building Museum in Washington, D.C., Bechtel and American Society of Civil Engineers volunteers taught kids how to build on a budget. **Riley Bechtel** 

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