



INFRASTRUCTURE

MINING & METALS

NUCLEAR, SECURITY & ENVIRONMENTAL

OIL, GAS & CHEMICALS

“For 118 years, Bechtel has been a leader in **engineering**, construction, and project management. We strive to be **the** best, and believe the only way to achieve that is by delivering **extraordinary** results for our customers, partners, and colleagues.”

**Curtis Island LNG, Queensland:**  
The Australia Pacific LNG (APLNG)  
production trains. APLNG is the largest  
of the three LNG plants Bechtel is  
delivering on Curtis Island.



**THE BECHTEL REPORT** 2016

**CONTENTS**

- 2 Executive Letter
- 5 Vision, Values & Covenants
- 6 Project Highlights
- 8 Oil, Gas & Chemicals
- 14 Nuclear, Security & Environmental
- 20 Mining & Metals
- 24 Infrastructure
- 30 Our People
- 32 Leadership



## ENGINEERING THE EXTRAORDINARY

Bechtel is one of the world's most respected global engineering, construction, and project management companies. We have honed our expertise across thousands of complex, first-of-a-kind projects—successfully designing, delivering, and operating them for our customers.

We provide our customers with certainty of delivery in an increasingly uncertain world—made possible by some of the most experienced and high-performing teams in our industry. Since 1898, we've completed more than 25,000 extraordinary projects in 160 countries. We are proud of the long-term progress and economic growth our projects create around the world.



**Bill Dudley**  
Chief Executive Officer

# Executive Letter

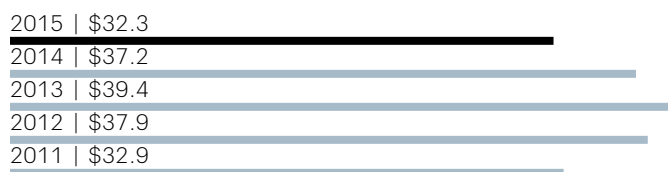
**To our customers, partners, suppliers, and colleagues:**

As anticipated, 2015 brought with it many changes. The record drop in oil and gas prices, the slowing economy in China, supply outpacing demand in the commodity markets, capital expenditure restraints, and persistent debt loads in the public sector impacted our customers and our industry. Our diversified portfolio continues to help us manage through industry cycles and economic volatility, allowing us to focus on delivering value for our customers and providing our colleagues with exciting opportunities to engineer the extraordinary.

**Financial Performance**

We had a solid year in 2015, meeting our expectations in a time of shrinking project opportunities. New awards totaled \$21.5 billion, an increase of 17 percent over the same period last year. Work-off revenue totaled \$32.3 billion, down 13 percent from 2014. Our resulting backlog remained strong at \$70.2 billion.

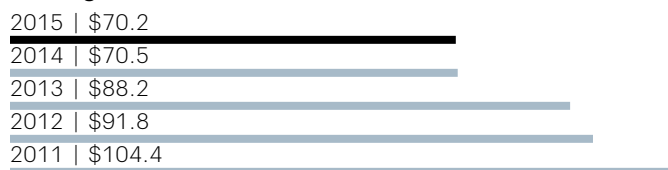
**Revenue** in billions of U.S. dollars



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



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



**2015 Project Milestones**

- Three world-class liquefied natural gas (LNG) facilities—each for a different customer—on Curtis Island, Australia. By January 2016, all three customers achieved first cargo.
- Completion of engineering and construction of the Tennessee Valley Authority’s Watts Bar Unit 2, the first new nuclear reactor this century to receive authorization to operate in the United States. Together with Watts Bar Unit 1, the reactors will produce enough carbon-free energy to power 1.3 million homes.
- The modernization of the Kitimat aluminum smelter in Canada. The plant is now achieving strong results for customer Rio Tinto and will boost aluminum production by 420,000 tons annually while reducing emissions by nearly 50 percent. Kitimat is considered one of the world’s lowest-cost smelters.
- Las Bambas, the world’s largest greenfield copper project. The plant, built in the Peruvian Andes, will treat 140,000 metric tons of ore per day to produce more than 400,000 metric tons of copper per year for customer MMG Limited.
- The Organic Growth Project 1 in Chile for Minera Escondida—Bechtel’s largest expansion project. This 152,000-metric-ton-per-day development will increase Escondida’s copper production and enhance competitiveness for customers BHP Billiton and Rio Tinto.
- Completion of 26 miles (42 kilometers) of tunneling for Europe’s largest engineering project, London’s Crossrail. UK Prime Minister David Cameron hailed it as “an engineering triumph.”
- The start of tunneling on the Riyadh Metro in Saudi Arabia, which will be one of the largest underground rail systems in the world.
- Construction completion of the Blue Grass Chemical Agent-Destruction Pilot Plant in Richmond, Kentucky, for the U.S. Department of Defense. The plant will destroy 523 tons of nerve and mustard agents in rockets and artillery projectiles stored there since WWII.

## Wins

We are pleased that our customers entrust us to help them advance their business strategies. Highlights include:

- Two major natural gas-fired combined-cycle power projects in the United States that will deliver more than 1,800 megawatts of energy and power to millions of homes.
- Two natural gas liquefaction trains on the Corpus Christi Liquefaction project—the first greenfield liquefied natural gas export facility in the United States—for a subsidiary of Cheniere Energy, Inc.
- The Toronto-York Spadina subway extension for the Toronto Transit Commission, where we are providing engineering, procurement, and construction project management in an integrated team.
- The Amrun bauxite mine project in Australia. Including processing and port facilities, the project will expand the output of one of the world's premier bauxite deposits for Rio Tinto.
- The U.S. Air Force Arnold Engineering Development Complex in Tennessee. A Bechtel-led team will run key operations for the Air Force's most advanced ground test facility.

Throughout the year, we focused on **delivering value** for our customers and providing our colleagues with exciting opportunities to engineer the extraordinary.

## Select Industry Recognition

We are proud of the industry recognition that our projects, colleagues, and customers received for excellence, safety, diversity, sustainability, and innovation. Recognition includes:

- Project of the Year status from the UK's National Rail Awards, for Reading Station.

## Brendan Bechtel

President &  
Chief Operating Officer



## EXPERTISE MATTERS: THE STRENGTH OF OUR TEAM

**Our ability to deliver the extraordinary is a direct result of the expertise and commitment of our worldwide team. Our colleagues hold more than:**

3,200

M.A./M.S. degrees

400

Ph.D. degrees

7,600

engineering degrees

2,900

professional licenses  
and certifications

## We are proud that more than:

6,000

colleagues have been at  
Bechtel 10+ years

1,800

colleagues have been at  
Bechtel 25+ years

- Three Employer Awards for Diversity from the UK's Women in Science and Engineering, the Australian National Association of Women in Construction, and Legal Momentum.
- Five sustainability awards from the U.S. Department of Energy to the Lawrence Livermore National Laboratory, the Los Alamos National Laboratory, and the Y-12 National Security Complex for driving improvements in waste management, energy and water use, and pollution prevention.
- Three Learning In Practice Awards from *Chief Learning Officer* magazine for demonstrating excellence in designing and delivering employee development programs.
- The U.S. government's Voluntary Protection Program Star Status for excellence in safety for the Blue Grass Chemical Agent-Destruction Pilot Plant, the Los Alamos National Laboratory, the Savannah River Remediation Site, and the Hanford Waste Treatment Plant.

- The highest grade for ethics and anti-corruption programs from Transparency International UK's Defence Companies Anti-Corruption Index 2015.
- Designation as one of America's Best Employers from *Forbes* magazine.

### **Innovation, Value, and Cost Optimization**

Throughout 2015, we enhanced project execution and operations to better serve our customers and continuously improve cost, delivery, and technical excellence. For example, we are:

- Improving how we share our best practices and replicate successes. We built extensive knowledge networks that are changing how we transfer information across our business. These networks include digital supply chain, bulk materials handling, construction, welding, virtual project delivery, and sustainability.
- Accelerating the pace of innovation. We established a Future Fund that seeks out and invests in new, game-changing ideas from colleagues, partners, suppliers, customers, and the world at large to improve engineering and construction processes, quality, and safety.
- Further integrating big data, wearable devices, and autonomous and semi-autonomous construction equipment into our design and build practices.
- Increasing procurement and contractual productivity by enabling a digital supply chain.
- Improving construction productivity through ongoing testing and incubation of new ideas and technologies in our Innovation Centers.

### **Safety**

Public and project safety is paramount. We continue to seek changes to our safety program to improve the well-being of our workforce.

While we reached more than 600 million job hours without a fatality, we mourn the tragic loss of two colleagues on our job sites this year. We believe that every incident and occupational injury is preventable, and that zero incidents is the only acceptable outcome.

### **2016 Priorities**

Like last year, we expect that in 2016 many of our markets will remain in a down cycle. Our customers' priorities will reflect the market conditions, and we are driven by our customers' priorities. However, our strength is the diversity of our project portfolio, and 2016 looks like another solid year. We see growth in our North American infrastructure markets, including fossil power, transportation, and communications. Also, low prices for natural gas in the U.S. will continue to drive growth in the U.S. petrochemical market.

Throughout our long history, Bechtel has weathered every market environment. We are uniquely positioned to navigate continuing economic uncertainties and are committed to our customers' needs and to delivering the extraordinary performance they expect.

Sincerely,

**Bill Dudley**  
Chief Executive Officer

**Brendan Bechtel**  
President & Chief Operating Officer

# Vision, Values & Covenants

## Vision: What we aspire to do

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.

## Values: What we believe

Building on a family and leadership heritage that spans more than a century, we are privately owned by active management and guided by our Vision, Values & Covenants. We value:

### **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.

## Covenants: How we do it

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.

# Project Highlights



**1. Pacific NorthWest LNG:**

Providing front-end engineering and design for a proposed LNG facility in British Columbia for Pacific NorthWest LNG.

**2. Kitimat Modernization:**

Completed the expansion and modernization of a 60-year-old aluminum smelter and associated hydroelectric tunnels in British Columbia for Rio Tinto Alcan.

**3. Tilbury LNG:** Performing engineering, procurement, and construction of a small-scale LNG facility, including new storage capacity, 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:**

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. Chemical Agent-Destruction Pilot Plants:**

Completing construction and startup of plants that will eliminate chemical weapons stockpiles at sites in Colorado and Kentucky for the U.S. Department of Defense.

**7. 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 in Tennessee for the U.S. Department of Energy.

**8. Panda Power Projects:**

Completed two 758-megawatt natural gas-fired combined-cycle facilities in Texas, and designed and began building two natural gas-fired combined-cycle facilities: a 778-megawatt facility in Virginia, and a 1,124-megawatt facility in Pennsylvania for Panda Power Funds.

**9. Corpus Christi Liquefaction:**

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

**10. Keeyask Generation & Infrastructure:**

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

**11. North American Growth Olefins Recovery:**

Building an ethylene plant at the ExxonMobil Baytown Complex in Texas.

**12. Sabine Pass Liquefaction:**

Designing and building the first five trains of a natural gas liquefaction plant in Louisiana for Cheniere Energy Partners.

**13. Communications Modernization:**

Providing fiber-to-the-premises (FTTP) that delivers high-speed television and internet service in the United States for Google Fiber.

**14. Watts Bar Generating Station:**

Completed engineering and construction of Unit 2 at a nuclear generating station in Tennessee for the Tennessee Valley Authority.

**15. Savannah River Remediation:**

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

**16. Carroll County:**

Constructing a 700-megawatt natural gas-fired combined-cycle plant in Ohio for Advanced Power.

**17. PTTGC Petrochemical Complex:**

Part of a consortium, performing front-end engineering and design for a new petrochemical complex in Ohio for the American subsidiary of Thai PTT Global Chemicals.

**18. Shell Franklin Ethane Cracker and Polymer Plant:**

Performing front-end engineering and design for a Shell Chemical polymer plant in Pennsylvania.

**19. Naval Nuclear Propulsion:**

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.

**20. Las Bambas Mine:**

Completed the construction of a greenfield copper concentrator project in the Peruvian Andes for MMG Limited.

**21. Escondida Water Supply:**

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

**22. Escondida Organic Growth Project 1:**

Completed the construction of the 152,000-metric-tons-per-day copper concentrator at the Escondida mine in the Chilean Andes for BHP Billiton.

**23. MetrôRio:**

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.





**24. Sellafield Pile Fuel Cladding Silo Retrieval:** Designing and building modules to retrieve, handle, and package legacy radioactive waste in North West England for Sellafield Ltd.

**25. Defence Equipment & Support:** Working with the UK Ministry of Defence to implement improvements in purchasing, project management, and key equipment programs for its armed forces.

**26. Reading Station:** Completed on-network and station improvements for Network Rail.

**27. Crossrail:** Completed design and construction of twin 13-mile (21-kilometer) tunnels. Integrating rail and station systems.

**28. 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.

**29. Gabon Infrastructure:** Executing the build-out of national infrastructure to support sustainable economic development for the government of Gabon.

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

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

**32. Chornobyl Shelter Implementation Plan:** Managing an integrated international team overseeing the design and construction of an enclosure for a damaged nuclear reactor for the European Bank for Reconstruction and Development.

**33. Wa'ad Al Shamaal City Development & Infrastructure:** Providing program management and front-end engineering and design as part of the King Abdullah project for the North Promise Industrial Mineral City for Saudi Arabian Mining Company (Ma'aden).

**34. South Caucasus Pipeline Expansion:** Performing construction and commissioning support for the project facilities in the country of Georgia for BP.

**35. 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.

**36. Al Taweelah Alumina Refinery:** Constructing a greenfield alumina refinery in partnership with Petrofac that will produce 2 million metric tons per year for Emirates Global Aluminium in Abu Dhabi.

**37. Muscat International Airport:** Performing EPC services to create a 28-gate international airport terminal and associated facilities for the Ministry of Transportation and Communications of the Sultanate of Oman.

**38. Tengiz Expansion:** Providing EPC services to add four crude-oil storage tanks at the Tengizchevroil oil production facility in Tengiz, Kazakhstan.

**39. Pertamina PESG:** Providing engineering and project development services to develop new refineries and improve capacity of existing refineries in Indonesia for Pertamina.

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

**41. Amrun:** Constructing a bauxite mine, and its associated processing and port facilities, to expand the output of one of the world's premier bauxite deposits, in Australia's Cape York Peninsula, for Rio Tinto.

**42. Curtis Island LNG projects:** Completed Queensland Curtis LNG; completed EPC and commissioning of the remaining two LNG facilities fed by coal-seam gas on Curtis Island for Australia Pacific LNG and Gladstone LNG.

**43. Hay Point Coal Terminal Expansion Stage 3:** Increased 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.

**44. Kwajalein Range Services:** Providing logistics and base operations support and integrated range engineering for a missile defense installation on Kwajalein Atoll in the Republic of the Marshall Islands.

# Oil, Gas & Chemicals

Year-end 2015 saw crude-oil prices fall to less than \$35 per barrel. We anticipate continued pressure on the industry and on our customers—“lower for longer”—forcing restrictions on capital expenditures.

Through our collaboration with ConocoPhillips and other partners, we remain the leading engineering, procurement, and construction contractor in the LNG market, particularly for large, complex projects. In 2015, we expanded our LNG capabilities to deliver concept-to-startup solutions for any size and type of LNG development. Further, we entered into an exclusive partnership with Chart Energy & Chemicals to design and build floating LNG process facilities using Chart’s IPSMR® liquefaction technology.



## EXPERTISE MATTERS: TEAM COMMITMENT



“The Sabine Pass Liquefaction project committed to a goal of early completion of Train 1. The entire team agreed it was achievable, understood it would take hard work and dedication on everyone’s part to be successful, and was **accountable** to our **commitments**.” —Todd G.

### In the background:

Sabine Pass Liquefaction,  
Louisiana

LONG-TERM INDUSTRY LEADERSHIP

## Since our founding, Bechtel has delivered:



1/3 of  
global  
LNG  
capacity

currently under construction

50,000

miles (80,500 kilometers) of pipeline systems

50+

major oil and gas field  
developments

110+

gas-processing plants

380+

major chemical and  
petrochemical projects

275+

refinery expansions and  
modernizations

## Select New Projects and Milestones

### LIQUEFIED NATURAL GAS (LNG), OFFSHORE AND TANKS

#### Tilbury LNG, Canada

We were awarded a contract to expand the Tilbury LNG facility in British Columbia for FortisBC. The expansion will allow FortisBC to provide LNG supply for industrial users and remote communities, bringing economic development and jobs to British Columbia.

#### Sabine Pass Liquefaction, United States

Cheniere Energy Partners' Sabine Pass gas liquefaction facility in Louisiana, the first complex to liquefy and export natural gas from the United States in more than 40 years, went into commissioning and startup in December. The Sabine Pass facility includes five liquefaction trains, each having a production capacity of approximately 4.5 million metric tons per year.

#### Corpus Christi Liquefaction, United States

Bechtel is designing and building the first greenfield export facility in the United States. The project—which includes two liquefaction trains, two storage tanks, two vessel docks, and a 22-mile (35-kilometer) natural gas supply pipeline—will have an expected aggregate production capacity of 9 million metric tons per year.

#### Delfin Floating LNG, United States

Delfin LNG selected Bechtel to perform front-end engineering and design for the first offshore floating natural gas liquefaction vessel in the United States. The vessel will go into service at Port Delfin, a proposed deepwater port 50 miles (80 kilometers) off the coastline of Louisiana.

### ONSHORE, PETROCHEMICALS AND PIPELINE

#### PTTGC Petrochemical Complex, United States

The American subsidiary of Thai PTT Global Chemicals selected a consortium of Bechtel, JGC America, and Samsung Engineering America to perform front-end engineering and design for a new petrochemical complex in Belmont County, Ohio.

#### Gulf MP Company Ltd. Pipelines, Thailand

We were selected by Gulf MP Company Ltd. of Thailand to manage construction of a dozen new pipelines and receiving stations that will feed gas into a network of planned power generation facilities.

#### Project Engineering and Service Group of Pertamina, Indonesia

We entered into a master services agreement with Pertamina of Indonesia to provide engineering and project development services for the development of new refineries and capacity improvement of existing refineries.

#### Liwa Plastics, Oman

Oman Oil Refineries and Petroleum Industries Company chose Bechtel to provide integrated project management services for the Liwa Plastics project in Sohar, Oman.



**Tilbury LNG, British Columbia:**  
Danielle S. takes a water sample  
from the site drainage area.

# Curtis Island: A World First

In November 2015, Bechtel handed over the Queensland Curtis LNG (QCLNG) plant to customer BG Group, completing the transition from construction to permanent operations, and signaling the beginning of commercial operations. QCLNG is the first of three plants being built simultaneously by Bechtel on Curtis Island to reach full operations.

The historic megaproject construction program—QCLNG, Gladstone LNG (GLNG), and Australia Pacific LNG (APLNG)—is part of the largest concentration of private capital investment in Australia's history. When all three plants become fully operational in 2016, Curtis Island will produce approximately 25 million metric tons of LNG annually, accounting for roughly 8 percent of global LNG production and making Queensland a significant contributor to reducing global electricity-related greenhouse gas emissions.

The coal seam gas LNG industry in Queensland is expected to generate some 18,000 new jobs and contribute more than \$3 billion to the state's economy.



Curtis Island LNG,  
Queensland

"I would like to thank **our partner, Bechtel**, for building this world-first facility and **helping to establish the LNG industry** on the east coast of Australia."

**Helge Lund**  
Chief Executive Officer, BG Group

**Curtis Island LNG, Queensland:**

The two-train Queensland Curtis LNG (QCLNG) project was handed over to the customer in November 2015.



**Curtis Island Delivery by the Numbers**

14,500

Total number of people employed at peak

×7

Concrete equivalent to seven Empire State Buildings

×13

Structural steel equivalent to 13 Eiffel Towers

×11

Electrical cable equivalent to 11 times the length of the Grand Canyon



## Local Impact

**\$1.5 billion**

Amount of local wages to long-term Gladstone residents

**500+**

Number of Aboriginal and Torres Strait Island people employed

**46%**

200 of the 436 apprentices trained and hired were residents of the Gladstone region

**\$9 million**

Amount spent locally in vehicle fleet purchases

# Nuclear, Security & Environmental

Our Nuclear, Security & Environmental business serves two distinct sets of customers: allied governments with missions related to national security, environmental cleanup, and chemical weapons disposal; and commercial enterprises. In 2015, we continued to help our customers transform mission delivery and achieve greater operational efficiency in the face of budget cuts, regulatory pressures, and market uncertainties.

## Transforming Mission Delivery

Our government customers have vital missions. We're helping them achieve greater efficiencies through consolidation of their facilities and by applying our project management expertise to their operations.

We have consolidated facilities for the U.S. Department of Energy (DOE), the U.S. Navy at Bechtel Marine Propulsion Corporation, and the Reagan Test Site in the Marshall Islands. At Y-12 and Pantex, two massive DOE national security sites, our efforts will yield significant cost savings during the course of the contract. In the UK, we are helping the Ministry of Defence drive down purchasing, project management, and key equipment program costs and schedules to better support and equip its military.

## Facilities Life Cycle Management

At the Blue Grass Chemical Agent-Destruction Pilot Plant in Kentucky and the Pueblo Chemical Agent-Destruction Pilot Plant in Colorado, we are assisting with the mission to safely eliminate the remaining 3,000-plus tons of mustard and nerve agents from the United States chemical weapons stockpile from start to finish. Our role includes engineering, procurement, construction, commissioning, performance testing, startup, operations, and closure.

In October, we completed construction of the Blue Grass facility. It now moves into a multiyear-testing phase. The Pueblo plant is expected to begin official operations in 2016.

## In the background:

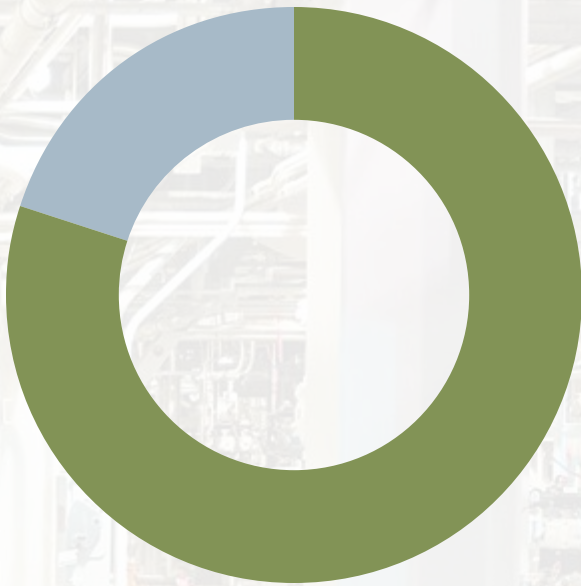
Blue Grass Chemical Agent-Destruction  
Pilot Plant, Kentucky





LONG-TERM INDUSTRY LEADERSHIP

**Bechtel is helping allied governments and commercial customers transform mission delivery.**



**80 percent of nuclear plants** in the United States designed, serviced, or delivered by Bechtel and 150 worldwide

Procured more than **\$1.3 billion** in goods and services from U.S. small businesses in 2015

Managing and operating **two key nuclear defense plants** for the DOE

Building the **largest capital project** ever undertaken by the National Nuclear Security Administration

Supporting the **UK's naval and air forces** through project management, controls, and supply chain management

## Select New Projects and Milestones

### HELPING MAKE THE WORLD CLEANER AND SAFER

#### Uranium Processing Facility, United States

The Bechtel-led Consolidated Nuclear Security, LLC partnership teamed with the DOE's National Nuclear Security Administration and the U.S. Army Corps of Engineers to complete the Uranium Processing Facility (UPF) Site Readiness project on time and \$20 million under budget.

#### Arnold Engineering Development Complex, United States

In June, the U.S. Air Force selected Bechtel-led National Aerospace Solutions LLC to run key operations for the Arnold Engineering Development Complex at Arnold Air Force Base in Tennessee. The contract includes operation of 43 wind tunnels, rocket and turbine engine test cells, ballistic ranges, and space chambers, as well as technology development, equipment and facility sustainment, capital improvements, and other services.

#### Y-12 and Pantex, United States

A Bechtel-led company, Consolidated Nuclear Security, LLC, which also worked on the UPF project, completed the first 15 months of managing and operating the Pantex and Y-12 nuclear security facilities for the U.S. Department of Energy's National Nuclear Security Administration. All mission-critical deliverables were met.

#### Waste Treatment and Immobilization Plant, United States

In the project's 15-year history, 2015 marked the safest year, and the Waste Treatment and Immobilization Plant (WTP) continues to be one of the safest places to work in the DOE complex. We achieved many significant milestones in the design and construction of WTP in Washington state. When completed, WTP will safely treat and immobilize millions of gallons of liquid radioactive waste, a byproduct from plutonium production during the Cold War. The site also received the DOE's highest safety award, the Voluntary Protection Program Star Status of Excellence.

### ENVIRONMENTAL CLEANUP

#### Savannah River Remediation, United States

At the Savannah River Remediation site, we are responsible for removing high-level radioactive liquid waste from existing underground tanks, treating that waste in complex facilities designed to make it safe for long-term disposal, constructing the high-tech salt disposal units, and the final closure of the emptied, million-gallon waste tanks.

#### Hanford Corridor River Cleanup, United States

As a member of the DOE's Washington Closure Hanford (WCH) team, we have helped remove more than 2 million tons of chromium-contaminated soil from areas near the Columbia River. To date, our WCH team working at the Hanford, Washington, site has demolished 323 buildings, cleaned up 571 hazardous waste sites, disposed of 11.4 million tons of contaminated material, and placed two nuclear reactors in interim safe storage.

### NUCLEAR POWER

#### Hinkley Point Nuclear Power Plant, United Kingdom

Bechtel is providing management consulting services to EDF Energy/NNB Generating Company as it undertakes initial site and related infrastructure development and construction planning for two 1,650-megawatt European Pressurized Reactor units at Hinkley Point in southwest England. The two-unit plant, when completed, will have the capacity to generate 3,300 megawatts of power.



#### EXPERTISE MATTERS: THE TEAM AT WTP

The first-of-its-kind Waste Treatment and Immobilization Plant will immobilize most of Hanford's dangerous radioactive tank waste by using vitrification (blending it with molten glass), heating it to high temperatures, and then pouring it into canisters for permanent safe storage. It is the most complex and diverse vitrification process in the United States. The 3,000 Bechtel colleagues making that happen include 300 veterans and 700 craft personnel, and they collectively hold 350 master's degrees and 17 Ph.D.s.

## Watts Bar Unit 2: A New Chapter in U.S. Nuclear Power

In 2015, Bechtel completed construction of the Tennessee Valley Authority's Watts Bar Unit 2 nuclear reactor. In October 2015, the U.S. government granted the operating license for the reactor, ending the nation's nearly 20-year hiatus of no new nuclear power plants. Watts Bar Unit 2 will add 1,150 megawatts of non-carbon-emitting power to the facility. Together, Unit 2 and the already operating Unit 1 will produce enough electricity to power approximately 1.3 million homes.

"This is cause for celebration for the millions of people in the Tennessee Valley Authority's service territory who can count on Watts Bar 2 as another source of **reliable, carbon-free electricity** for decades to come."

**Marvin Fertel**  
President and CEO, Nuclear Energy Institute

NS&E

**Watts Bar Units 1 and 2,  
Tennessee:** This facility will produce enough electricity to power about 1.3 million homes.





**Notable workforce achievements include:**

33 million

Number of hours (nearly five years) without a lost-time incident—an exceptional safety record

1st

Watts Bar is the first plant in the United States to complete post-Fukushima safety upgrades, in June 2015

Safe

Unit 2 successfully completed the U.S. Nuclear Regulatory Commission's operational readiness team inspection

# Mining & Metals

With the mining and metals industry entering its fifth year of decline, we are working with our customers to navigate through this low point in the market cycle. Using engineering, layout optimization, and modularization, we are helping our customers reduce the overall footprint and constructed cost of their facilities, increase capital efficiencies, and cut water and energy consumption.

## Select New Projects and Milestones

### Amrun, Australia

At the end of 2015, we received full notice to proceed on a new bauxite mine in Queensland for Rio Tinto. Making an annual \$1.3 billion contribution to Queensland's economy once completed, Amrun will be one of the highest-quality bauxite projects in the world. The construction phase is expected to last three years, with employment peaking in late 2017 at around 1,100 people.

### Al Taweelah Alumina Refinery, United Arab Emirates

Construction began on the \$3 billion Al Taweelah Alumina Refinery in the United Arab Emirates. The refinery is being built to the highest environmental standards. When completed, it will produce 2 million metric tons per year of smelter-grade alumina.

### Hay Point Expansion Stage 3, Australia

In 2015, Bechtel celebrated a significant milestone by delivering 82,500 tons of first coal to customer BHP Billiton and Mitsubishi Alliance bound for Indonesia. The project has increased the port's capacity by 25 percent to 55 million tons per annum.



**In the background:**  
Hay Point Expansion Stage 3,  
Queensland

## EXPERTISE MATTERS: ETHICS FIRST



“When I was looking for a new job in Russia, the country was going through massive changes politically and socially. Choosing a company with the highest ethical standards became my number one priority. That was more than 15 years ago. It makes me proud to work for a company that is **uncompromising** in **ethics, integrity, and fairness.**” —Misha N.

LONG-TERM INDUSTRY LEADERSHIP

**Since our founding, Bechtel has delivered:**

200

million metric tons  
per annum of  
installed iron ore  
production

42

major copper  
projects

30

aluminum smelter  
projects

15

major coal projects

8

alumina refinery  
projects

# Helping Customers Achieve First Ore and Metal

## **Kitimat Aluminum Smelter, Canada**

Bechtel completed the modernization of Rio Tinto's 60-year-old Kitimat aluminum smelter in British Columbia. The modernization will increase the facility's capacity by nearly 50 percent while cutting emissions in half. First hot metal was achieved in June 2015, and aluminum production is expected to reach 420,000 metric tons per year in 2016.

## **Organic Growth Project 1, Chile**

Bechtel has completed BHP Billiton's third concentrator at the Escondida mine in Chile's Atacama Desert. OGP1 will add 152,000 metric tons per day of nominal capacity to the capacity of Escondida's two existing concentrators: Laguna Seca and Los Colorados. The OGP1 new concentrator is the largest single-line unit ever built.


## **Las Bambas, Peru**

Bechtel celebrated mechanical completion of the Las Bambas project for its customer MMG Limited. The greenfield copper concentrator, located in the Peruvian Andes at approximately 14,000 feet (4,270 meters) above sea level, achieved its first ore in November 2015. It reached full production of more than 140,000 metric tons per day in less than three months, becoming the fastest plant to reach single-day nameplate capacity in Bechtel's long history of copper projects.

**Escondida Organic Growth Project 1, Chile:** The new concentrator will increase copper throughput by 20 percent.







“At full production, Kitimat will be one of the most **efficient, greenest, and lowest-cost** smelters in the world.”

**Alf Barrios**  
Aluminium Chief Executive, Rio Tinto

# Infrastructure

The need for infrastructure continues to increase worldwide due to ongoing urbanization, rapid population growth, and extreme weather events. Countries, cities, and local governments are seeking a range of initiatives from replacing aging, under-capacity systems to building modern, smart cities from the ground up.

In 2015, we worked with our customers across their entire project lifecycles—from master planning through operations and maintenance—to deliver the highest value to them and their constituents.

We teamed with Edmonton, Alberta, on a 35-year plan to design, build, finance, operate, maintain, and supply vehicles for the Edmonton Valley Line light rail project. We also continue to seek and support innovative public-private partnership (P3) initiatives to help address risk and encourage investment in smart infrastructure.

**In the background:**  
Croatian Motorway, Croatia



## EXPERTISE MATTERS: COMMITMENT TO COMMUNITY



“Engineering and construction is the most rewarding job in the world because you change people’s lives for the better. At the peak of my first Bechtel project, the Croatian Motorway, there were 6,000 people working on it—the population of a big town in Croatia. There we were, all 6,000 of us, having the same **purpose**, following the same vision, grounded in the same values. It was astounding. There aren’t many jobs that give you that sense of **purpose and fulfillment**.” —Iva Z.

LONG-TERM INDUSTRY LEADERSHIP

**Since our founding, Bechtel has delivered:**

**300**  
subway and rail  
projects

**17,200+**  
miles (27,700+ kilometers) of highways and roads

**6,200+**  
miles (10,000+ kilometers) of railroads

**17,400+**  
miles (28,000+ kilometers) of installed wireline and  
fiber communications cable

**80+**  
ports and harbors

**250**  
miles (400 kilometers)  
of tunnels

**96**  
airports and airport  
systems

**390**  
individual power plants

**50**  
hydroelectric power  
plants

## Select New Projects and Milestones

### COMBINED-CYCLE POWER

Bechtel has delivered more than 125 combined-cycle, gas-fired power generation plants that produce more than 40,000 megawatts of clean energy. Drawing on this experience and applying the latest modeling tools, we have achieved even greater efficiencies in building the plants, which deliver significant benefits for our customers, including speed to market and reduced investment risk. Recent projects include:

- Carroll County Energy Center, a 700-megawatt facility in Ohio
- Stonewall Energy Center, a state-of-the-art, 778-megawatt plant in Virginia that will generate clean energy for up to 778,000 homes
- Hummel Station, one of the largest coal-to-natural gas power conversion projects in the United States

### TRANSPORTATION

#### Riyadh Metro, Saudi Arabia

The Riyadh Metro is part of a 25-year strategic plan to address the city's rapid growth—the population is expected to increase 50 percent by 2035 to 7.5 million. When complete, the 109-mile (176-kilometer), six-lane, driverless network will serve 400,000 passengers annually. A Bechtel-led consortium is responsible for design, construction, train cars, signaling, electrification, and integration of Lines 1 and 2—two of the most complex lines on the Riyadh Metro project.

#### Toronto-York Spadina Subway Extension, Canada

Bechtel was called in by the Toronto Transit Commission to reorganize project management and complete the 5.3-mile (8.6-kilometer) extension of the Toronto-York Spadina subway after the project experienced delays. The project is now on track for delivery in 2017.

#### Kosovo Motorway, Kosovo

The first segment of the new 37-mile (60-kilometer) motorway linking the capital, Pristina, to neighboring Macedonia opened to traffic in November.

### COMMUNICATIONS MODERNIZATION

We are working with Google Fiber to provide fiber-to-the-premises (FTTP), high-speed television, and Internet service in the United States. This includes designing and installing over 15,000 miles (24,000 kilometers) of fiber in cities across the southeast, including Charlotte and Raleigh-Durham, North Carolina; Nashville, Tennessee; and Atlanta, Georgia. This gigabit service will offer speeds up to 40 times faster than broadband.

### CITY PLANNING AND DEVELOPMENT

#### Jubail, Saudi Arabia

Bechtel has managed the Jubail Industrial City project, located in the eastern province of Saudi Arabia, since it began in the mid-1970s. Today, Bechtel's work has been expanded to include Jubail II, an \$11 billion expansion of the city's industrial and residential areas.

#### Wa'ad Al Shamaal, Saudi Arabia

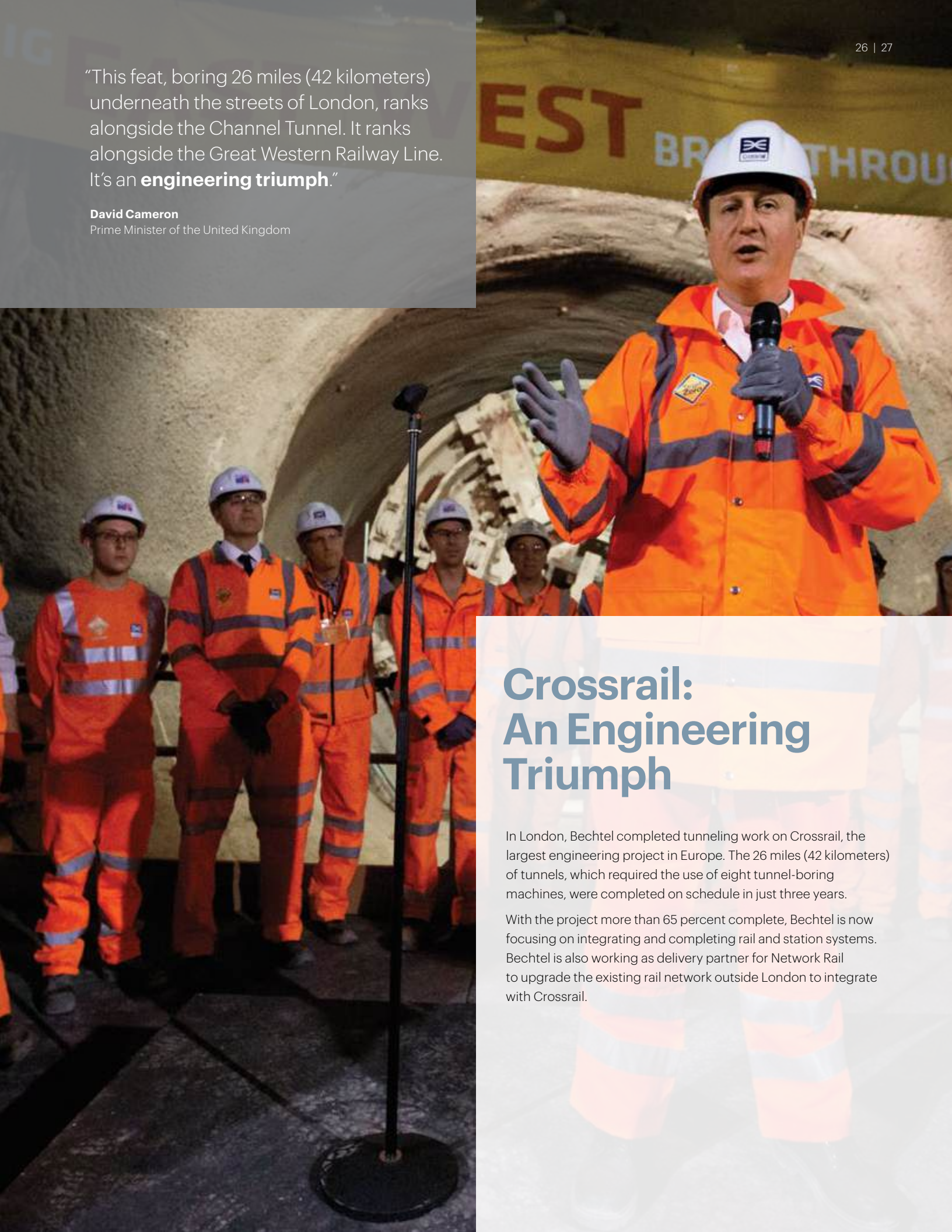
Covering 170 square miles (440 square kilometers) in Saudi Arabia's northern frontier, Wa'ad Al Shamaal will be a city of 100,000 residents and a mining complex with seven world-scale phosphate processing plants. Bechtel is providing master planning and program management services.



Wa'ad Al Shamaal,  
Saudi Arabia

“This feat, boring 26 miles (42 kilometers) underneath the streets of London, ranks alongside the Channel Tunnel. It ranks alongside the Great Western Railway Line. It’s an **engineering triumph.**”

**David Cameron**  
Prime Minister of the United Kingdom



## Crossrail: An Engineering Triumph

In London, Bechtel completed tunneling work on Crossrail, the largest engineering project in Europe. The 26 miles (42 kilometers) of tunnels, which required the use of eight tunnel-boring machines, were completed on schedule in just three years.

With the project more than 65 percent complete, Bechtel is now focusing on integrating and completing rail and station systems. Bechtel is also working as delivery partner for Network Rail to upgrade the existing rail network outside London to integrate with Crossrail.



**Crossrail, United Kingdom:**  
The 26 miles (42 kilometers) of tunnels were completed on schedule in just three years.



EXPERTISE MATTERS: AILIE MACADAM



Ailie MacAdam is the manager of the Europe and Africa regions for the Infrastructure business. She spent two-thirds of her career in transport, first project managing the Central Artery Tunnel project in Boston, Massachusetts, then London's St Pancras Station refurbishment and extension, and then project directing UK's High Speed 1 railway. She then moved to Crossrail, working in a series of roles **leading** up to becoming the central section delivery director, **responsible** for the **delivery** of \$10.9 billion worth of infrastructure in central London.

# Our People

Our more than 55,000 colleagues worldwide are the heart of our business. Their talent and commitment have a significant impact on the industry, on our customers' projects, and on the communities where we live and work.

In 2015, our colleagues donated 18,000 volunteer hours and supported 100,000 children, adolescents, and adults around the world through our Signature Stewardship Program partners: DiscoverE, Engineers Without Borders (EWB), *FIRST*®, and Junior Achievement. They sponsored and mentored 50 *FIRST*® Robotics teams—including ones in the national championships in London, Chile, and the United States. They took part in numerous EWB projects around the world, including in the United States, Uganda, and India, bringing our total to 58 during the past three years. In addition, our colleagues have spent thousands of hours volunteering for local charities at project sites and Bechtel offices worldwide.

## Ethics

Ethical behavior is at the core of the company's Vision, Values & Covenants. That's why ethics and compliance are essential components of our ongoing training programs. In 2015, we achieved the highest grade in Transparency International UK's (TI-UK) Defence Companies Anti-Corruption Index. TI-UK described ethics and compliance programs as "a company's approach to promoting its ethical culture and reducing corruption risk." In Reston, Virginia, Bechtel colleagues from our operational

## EXPERTISE MATTERS: THE NEXT GENERATION OF ENGINEERS



"Sustainability means leaving the community a better place once our project is over. We are making a difference, especially when it comes to the promotion of STEM education. It is my hope that middle and high school students are **inspired to become future engineers and scientists** due to the volunteer efforts of our wonderful employees."  
—Sandy R.

headquarters supported the Greater Reston Chamber of Commerce's annual Ethics Day program. Our volunteers provided high school students with ethics training and guided ethical dilemma discussions, serving as "table top" advisers, and helping students select responsible choices.

## Training and Development

Bechtel provides learning and development programs through Bechtel University (BU), which offers more than 1,000 instructor-led and online courses for our colleagues at all stages of their careers. Course offerings include engineering, procurement, construction, ethics, diversity, project management, leadership, safety, quality, business services, and language and cultural awareness. BU supports the company's vision to achieve optimal results for customers while building satisfying careers for Bechtel colleagues.

One award-winning course, High Performance Crews, is a field-training program for construction supervisors that builds skills in leadership, safety, quality, and productivity. The interactive course transforms traditional classroom training into a hands-on job site curriculum, and more than 300 colleagues have graduated from the program since its launch last year.

## *FIRST*® LEGO® League, Chile

In Chile, our colleagues mentor teams of local students as they design and build robots to compete in local, national, and international competitions. *FIRST*® LEGO® League (FLL) releases an annual challenge project based on a real-world scientific topic or problem. This year, FLL teams tackled the Trash Trek<sup>SM</sup> Challenge: a mission to develop an innovative way of reusing trash.







### Building Local Capacity in Abu Dhabi

Together with the Abu Dhabi Department of Municipal Affairs, we launched an innovative engineering training program to train up to 100 people from Abu Dhabi. During the next 10 years, the trainees will be deployed at Bechtel projects for a minimum of 12 months. The aim is to enhance practical and technical skills in building and construction. This new program continues Bechtel's longstanding commitment to capacity building, skills training, and the development of local workforces.

### Women@Bechtel

One of the company's most active employee groups is Women@Bechtel. This global collaborative forum provides an opportunity for Bechtel women to share knowledge, perspectives, and experiences, as well as to learn tools for success. Women@Bechtel is just one of many initiatives that the company is promoting to make Bechtel an employer of choice for women.

In November, we won the UK's prestigious Women in Science and Engineering Employer award. The company employs more than twice the UK's average for the number of women engineers, and almost 40 percent of Bechtel's engineers on the Crossrail project in London are women.

Two of our engineers were recognized for Achievement in Construction and Health & Safety from the Australian National Association of Women in Construction. In addition, our principal counsel, corporate secretary, and manager of the corporate legal team were recognized with a 2015 Women of Achievement award by Legal Momentum, the Women's Legal Defense and Education Fund (USA).

"We are very proud to count on Bechtel as a strategic partner in our *FIRST*® *LEGO*® League program. By collaborating, we are able to extend the program to more underserved schools and regions in Chile, and help children **discover** and develop their **talents**."

**Kirstin Engemann**  
CEO Fundación SparkTalents



### Engineers Without Borders, Uganda

Thirty-seven percent of the world's population without access to clean water lives in sub-Saharan Africa. The region is facing significant challenges to provide safe drinking water for families and communities.

One such community is the village of Mikomago, located in the Kyanamukaaka subcounty of Uganda. Families, particularly young children, walk long distances across steep terrain to collect water from open pits and shallow wells. The water that they collect from these unprotected sources is contaminated with bacteria, which is contributing to severe community health issues.

Engineers Without Borders-USA and several Bechtel volunteers are working with the Mikomago Water Committee, which Bechtel helped re-establish, and the Mwangwe Rural Development Association to assess the community's current needs and future uses for water. Together, we will help develop, design, and construct a sustainable water system that will include a deep well and submersible pump. We will then transfer this knowledge and know-how to the community. This project will affect about 1,700 people.

# Leadership

## Riley Bechtel

Chairman of the Board

## Bill Dudley

Vice Chairman of the Board

## Brendan Bechtel

Chief Executive Officer

## Jack Futcher

President &  
Chief Operating Officer

## Peter Dawson

Chief Financial Officer

## Michael Bailey

General Counsel

## INFRASTRUCTURE

### Craig Albert

President

### Toby Seay

Americas

### Shaun Kenny

Asia Pacific

### Ailie MacAdam

Europe & Africa

### Amjad Bangash

Middle East & North Africa

## NUCLEAR, SECURITY & ENVIRONMENTAL

### Barbara Rusinko

President

### Brian Sheridan

Defense & Security

### James Taylor

Environmental

### John Williams

NS&E International

### John Howanitz

Nuclear Security & Operations

### Ty Troutman

Nuclear Power

## MINING & METALS

### Paige Wilson

President

### Carlos Ruiz

Americas

### Shane Hall

Europe, Africa &  
Middle East

### Lucy Martin

Bulk Materials Handling

## OIL, GAS & CHEMICALS

### Alasdair Cathcart

President

### Emad Khedr

Execution/Business Services

### Darren Mort

LNG

### Maurissa Douglas Rogers

Offshore

### Scott Johnson

Onshore

### Jamie Cochrane

Petrochemicals

### Steve Hawkins

Pipeline

### Jeff Sipes

Tanks

### Paul Gibbs

Water

## REGIONS & GOVERNMENT AFFAIRS

### David Welch

President

### Andrew Patterson

Africa

### Shaun Kenny

Asia Pacific

### David Welch (acting)

Europe & Middle East

### Héctor García

Latin America

### Jay Farrar

Washington, DC Office

## BOARD OF DIRECTORS, BECHTEL GROUP, INC.

### EXECUTIVE DIRECTORS

#### Craig Albert

#### Michael Bailey

#### Brendan Bechtel

#### Peter Dawson

#### Bill Dudley

#### Jack Futcher

### NON-EXECUTIVE DIRECTORS

#### Riley Bechtel

Chairman of the Board,  
Bechtel Group, Inc.

#### Steve Bechtel, Jr.

Senior Director,  
Bechtel Group, Inc.

#### Leigh Clifford, AO

Chairman, Qantas Airways  
Limited, and former CEO,  
Rio Tinto Group

#### Alan Dachs

President & CEO,  
Fremont Group

#### Bob Joss

Dean Emeritus, Graduate  
School of Business, Stanford  
University, and CEO, retired,  
Westpac Banking Corporation

#### Nick Moore

Former Global Chairperson,  
PricewaterhouseCoopers

#### David O'Reilly

Former Chairman and  
CEO, Chevron

#### Dan Warmenhoven

Former Executive  
Chairman, NetApp

## EPC MANAGEMENT

### Jim Ivany

Engineering, Procurement &  
Construction Functions and  
Chief Innovation Officer

### Doug Omichinski

Construction & Bechtel  
Equipment Operations

### Bhupesh Thakkar

Engineering & Technology

### Jeff Shoop

Environmental, Safety &  
Health

### David Hammerle

Procurement & Contracts

### Scott Edmunds

Project Controls

### Craig Stoker

Quality & Six Sigma

### Joe Diaz

Startup

## OTHER MANAGEMENT

### Eric Parker

Bechtel Enterprises

### Anette Sparks

Controller & Business Services

### Charlene Wheelless

Corporate Affairs

### Nancy Higgins

Ethics & Compliance

### Jim Haynes

Human Resources

### Carol Zierhoffer

Information Systems &  
Technology

### Lynne Saint

Internal Audit

### Michael Wilkinson

Risk Management

### Garry Robison

Security

### Tam Nguyen

Sustainability

### John Deshong

Tax

### Kevin Leader

Treasury

Curtis Island LNG,  
Queensland





[www.bechtel.com](http://www.bechtel.com)

Bechtel is one of the most respected global engineering, construction, and project management companies. Together with our customers, we deliver landmark projects that foster long-term progress and economic growth. Since 1898, we've completed more than 25,000 extraordinary projects across 160 countries on all seven continents. We operate through four global businesses: Infrastructure; Nuclear, Security & Environmental; Oil, Gas & Chemicals; and Mining & Metals. Our company and our culture are built on more than a century of leadership and a relentless adherence to our values, the core of which are safety, quality, ethics, and integrity. These values are what we believe, what we expect, what we deliver, and what we live.