

**Bechtel Impact Report** 

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# Investing in People & 17 Communities

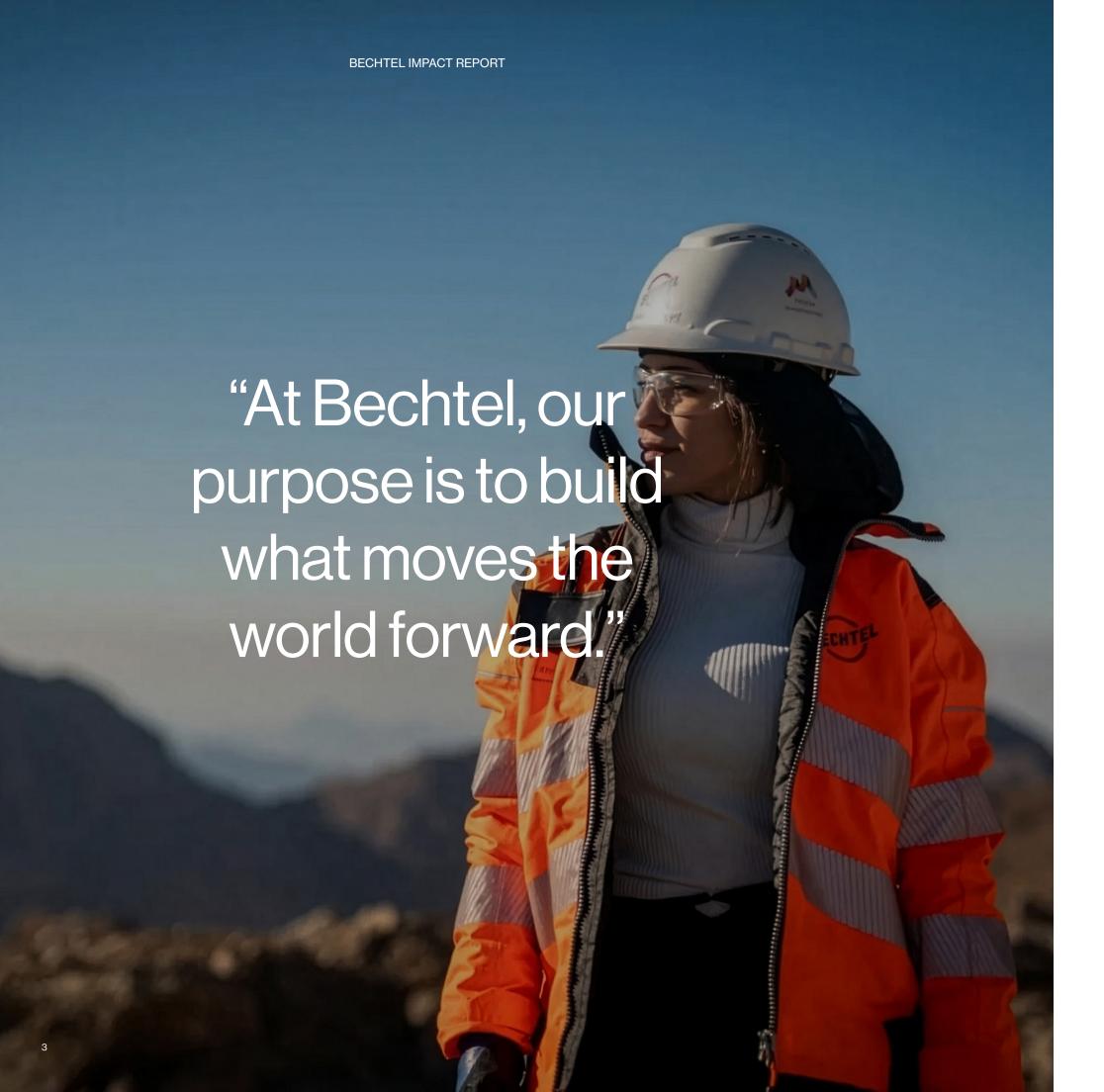
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# Building with Confidence in a Changing World

In an era defined by rapid change, enduring success is rare, especially for a company that's been in existence for more than a century. But at Bechtel, it's what we strive for — and in 2024, it's exactly what we delivered.

We're proud to report that 2024 was one of the best years of our company's 127-year legacy. We advanced and completed dozens of major projects, won quality new work, and earned some of our highest-ever customer satisfaction scores. Our projects collectively improved urban mobility, powered communities, expanded access to the world's reserves of critical minerals, increased LNG exports, strengthened defense and economic security, and bolstered energy independence with clean energy from nuclear to solar.

We also excelled in our most important metric: safety. In 2024, we retained our International Organization for Standardization certification – which ensures we uphold the highest standards of occupational and health and safety for our people. Our numbers reflect that commitment. We outperformed industry benchmarks, registering some of the lowest injury rates in company history, with a lost time incident rate of 0.016 and a total recordable incident rate of 0.172.

Bechtel has come a long way since our founder, Warren Bechtel, first began grading railroad beds in Oklahoma at the turn of the 20th century. But while we've grown and evolved, one thing hasn't changed: our commitment to progress. Not as an idea, but as a tangible outcome for our customers. At Bechtel, our purpose is to build what moves the world forward.

Year after year we adapt to our customers' changing needs and expectations, ensuring that Bechtel is uniquely suited to deliver in the marketplace. In 2024, that meant investing in our people and how we deliver, building Bechtel for the long term, and leading with our values.

# Developing the Industry's Best Workforce

Our people are at the center of everything we do. From concept through construction and beyond, their sense of mission,

Left NEOM TROJENA, Tabuk Province, Saudi Arabia

problem-solving mindset, and relentless pursuit of excellence make our work — and our impact — possible. And never in our history has attracting and retaining top talent been more important.

Our ability to deliver the world's most complex megaprojects is inextricably tied to the quality of our people — and strengthened by the tools and training we provide, the culture we build together, and the proven processes we follow to drive

To that end, we're working to be the most sought-after employer in the industry. In 2024, we rolled out a new paid-time-off policy for craft professionals — an industry-leading standard. We also continued to forge partnerships with universities and organizations to launch apprenticeship programs around the globe, upskill local workers, and grow our craft professional and professional staff pipelines.

Our focus remains twofold: reaching a broad and diverse pool of candidates to find the best talent and fostering a culture of belonging where everyone feels heard, respected, and empowered to thrive. We want current and future team members to know Bechtel offers more than a job. We have always been and will continue to be a place where people come to stay and build meaningful careers.

Additionally, we've set a goal of creating the industry's best training programs. In 2024, we expanded customer-based leadership training to help our colleagues deepen trust and collaboration among one another and our customers. We also rolled out a clear, consistent job architecture for every position at Bechtel — laying the groundwork for the skills that are required at every level. This architecture will serve as the foundation for a multi-year enterprise-wide training effort.

Ultimately, the companies that invest in talent today will define the industry tomorrow.

#### Focused on the Long-Term

Looking ahead, we're clear-eyed about the challenges and opportunities that lie on the horizon. The evolving global energy economy, soaring electricity demand, the race to lead in artificial intelligence, the reshoring of U.S. manufacturing, and the changing face of urban mobility are just several of the trends driving the need for Bechtel's unique capabilities in delivering large-scale projects. With the rise of Al and digital delivery tools, we're investing heavily in these technologies — putting them in the hands of our people, developing new applications, and positioning Bechtel at the forefront in unlocking their full potential. As the global landscape grows more complex, our experience navigating and adapting to change will become even more valuable.

Overall, we remain focused on ensuring Bechtel is built for — and builds for — the long term. In 2024, we did that by continuing to expand into high-growth sectors like manufacturing and technology, while supporting our customers' pragmatic "more of everything" energy strategies, positioning ourselves for greater work in LNG, combined cycle power, and nuclear power around the world.

We also strengthened our supply chain by adding in-house steel fabrication to our existing pipe and tank capabilities, deepening our vertical integration, and deploying digital tools to build smarter and faster. And we helped customers do more with less — prioritizing quality, minimizing rework, and reducing complexity through our self-perform capabilities.

By preparing for the future today, we're positioning Bechtel to help customers and communities meet the moment, and lead through it. We are already maintaining a diverse portfolio to insulate Bechtel from market turbulence, engaging customers during the front-end-design phase to demonstrate our expertise, and investing in innovation.

We expect that these steps will set us up for an even more successful 2025 and 2026. But year-over-year performance isn't the only way we measure our success. We measure it by pushing the bounds of what's possible – never settling, always striving to reach our full potential and exceed our customers' expectations.

# Guided by Foundational Values

Extraordinary teams building inspiring projects. We articulated this vision in 2023, but it has defined our company since the beginning. It remains the standard

"Overall, we remain focused on ensuring Bechtel is built for — and builds for — the long term."

we strive for in everything we do. And in 2024, our Vision, Values, & Commitments continued to guide us.

Nowhere was this more evident than in our commitment to take care of one another by putting safety and well-being above all else. In 2024, we launched a landmark five-year partnership with the American Foundation for Suicide Prevention (AFSP) to confront the suicide crisis in our industry. Our initial goal is to reach 500,000 construction workers.

To support the effort, Bechtel also announced the formation of a CEO Advisory Council to provide AFSP with insights on the unique challenges craft professionals face. The companies and unions on the council represent more than 3 million U.S. construction workers, and over time, we plan on enlisting more stakeholders, so we can reach every worker in the industry. We believe caring for mental health should be as routine — and as normalized — as putting on a hard hat. This industry-wide partnership is a major step toward making that belief a reality.

#### Bechtel is Ready

As the future comes into focus, we have every reason to be optimistic. The world urgently needs builders — builders who can do what no one else can. The global population is expected to grow by nearly 2 billion people by 2050, driving demand



Above Riyadh Metro, Riyadh, Saudi Arabia
Below Brendan Bechtel, CEO, and Craig Albert, COO



for everything from air travel and roads to clean energy and digital infrastructure. A rising global middle class is seeking greater access to modern essentials, while the growth of artificial intelligence is accelerating the need for new data centers.

Just as we have for the past 127 years, we live for a challenge. Backed by a legacy of excellence, extraordinary teams, and ironclad values, we're developing the solutions that will support a more sustainable, connected, and secure world. At our core, we're still doing what we've always done: building what moves the world forward.

Thank you for your interest in Bechtel. We look forward to sharing our continued progress with our colleagues, customers, and communities.

Sincerely,



BOP. BOD

BRENDAN BECHTEL
Chairman and Chief Executive Officer



Lin Allow

CRAIG ALBERT

President and Chief Operating Officer



## Financial Overview

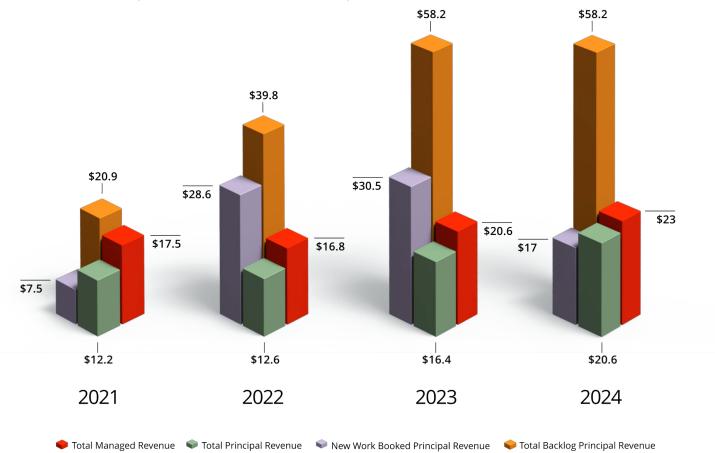
With our prudent risk philosophy, disciplined approach to project selection, strong balance sheet, and well-established credit profile, 2024 proved to be another strong financial year for Bechtel. Our total principal revenue rose to \$20.6 billion, a 25% increase over the previous year and our second consecutive year of double-digit growth.\*

In 2024, we were privileged to compete for and win a substantial number of new projects across our five business units. With \$17 billion in new work booked last year, we secured high-quality projects that align with our strategic objectives. A significant portion of our work continues to come from long-term customers — a testament to our ability to perform as promised and earn the trust of our partners.

This new work contributed to the significant growth in backlog revenue, which has more than doubled since 2020, reaching \$58.2 billion in 2024. We expect this momentum to continue in 2025 as we pursue opportunities in our key markets and as our customers increase capital investments in new infrastructure, energy production, critical minerals, national security, advanced manufacturing, and more.

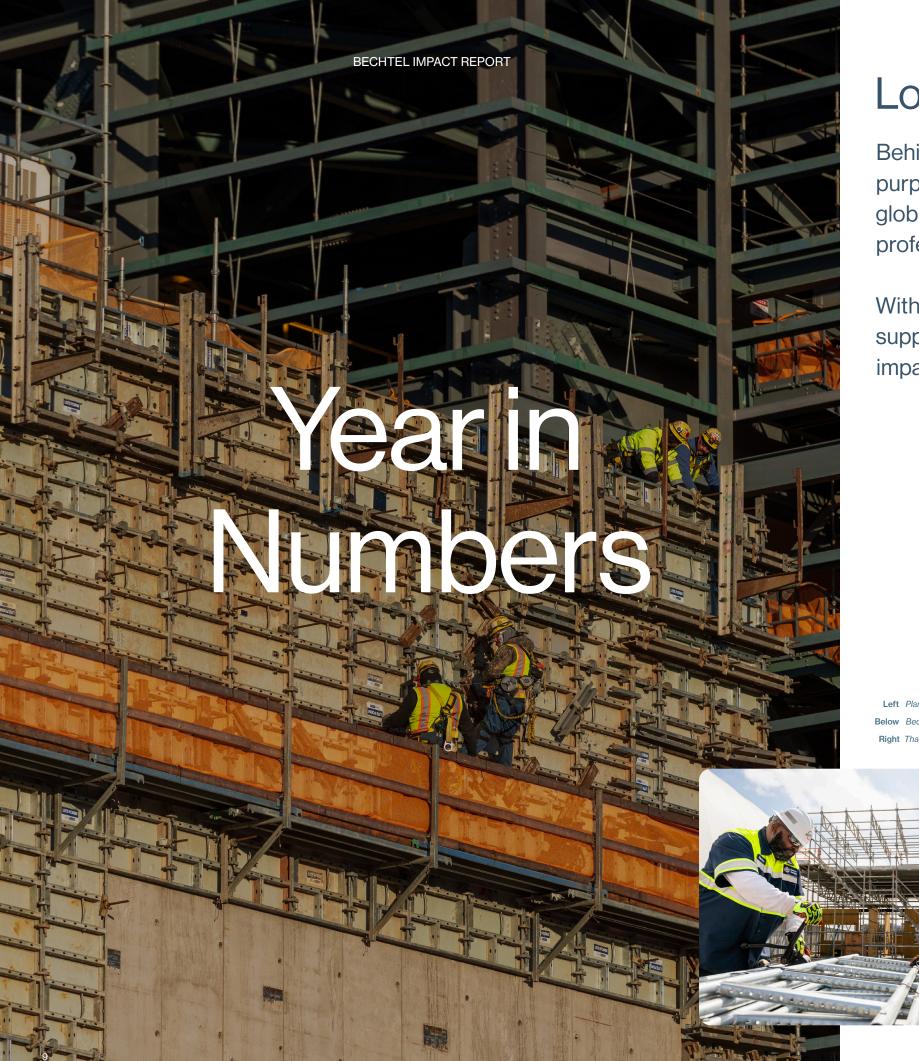
Our financial success goes hand in hand with our commitment to supporting local economies. Across our projects, we stimulate long-term growth by creating jobs and prioritizing local hiring, procurement, and training programs — ensuring communities where we operate benefit both during the project and long after it ends.

#### Total Revenue (Billions of U.S. Dollars)



<sup>\*</sup> While Bechtel is a private company and does not publicly report income, our results were in line with our financial expectations and reflected strong contributions across all our business units.

Left Los Pelambres Copper Mine, Salamanca, Chile



# Looking Back on 2024

Behind every number is a story of Bechtel's people, performance, and purpose. In 2024, we delivered meaningful projects, expanded our global footprint, outperformed industry benchmarks, and invested in the professional growth of our people.

With 1,000,000 hours of training and \$12.3 billion spent on procurement and supply chain operations, 2024 was a year of momentum and measurable impact. Here's a look at what we accomplished together.

**43K** Colleagues

**33** Countries

In 2024, our global workforce grew to nearly 43,000 colleagues.

By the close of 2024, our global presence spanned 33 countries.

**100+** Mega Projects

Bechtel is actively engaged in over 100+ large-scale, complex projects shaping economies and communities worldwide

Left Plant Vogtle Units 3 & 4, Georgia, U.S.

Below Bechtel Equipment Operations, Texas, U.S.

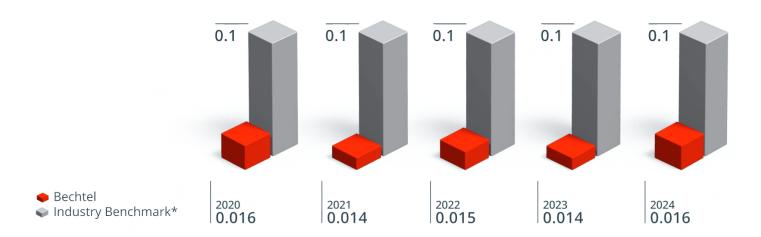
Right Thacker Pass, Nevada, U.S.



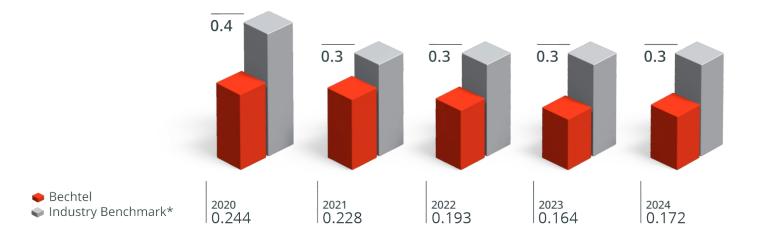
# Safety First

We take care of each other.

#### Lost Time Incident Rates



# Total Recordable Incident Rate



U.S. Bureau of Labor Statistics rates for top-performing quartile of large construction companies (1,000+ employees)

# A Culture of Growth

At Bechtel, we're building more than projects – we're fostering a culture of continuous learning and growth where people are empowered to do their best work and reach their full potential. In 2024, we grew our team, celebrated career milestones, and recognized the dedication of those who drive our success – across project sites and offices, in every role.

#### 70 Years in Australia\*



#### 30 Years in India\*



Left Scarborough Energy Project, Karratha, Western Australia

Right Bechtel colleagues pictured in Gurgaon, India

43,000 Total Colleagues

9,630 New Colleagues

1,000,000 Total Training Hours

**4,500** Total Promotions

**18 Years** Average Tenure for Project Managers

\*Bechtel celebrated milestone anniversaries of decades of work in these countries in 2024.

# Growing Our Global Presence

We grew our global reach — opening and expanding eight new offices in key markets around the world. From office anniversaries to iconic new projects, our teams continued building a legacy that spans all seven continents.

#### Operated in 33 Countries









#### Four New Offices & Four New Office Expansions



Left & Right Corpus Christi Liquefaction Project, Texas, U.S.

Above Mobile Launcher 2, Florida, U.S.



Below Bridges to Prosperity, Rwanda

Left Loudoun Habitat for Humanity, Virginia, U.S.

Above Cutlass Solar 2 Project, Texas, U.S.

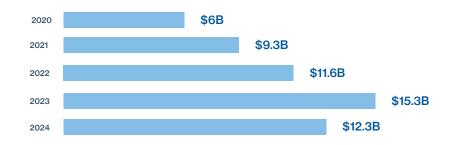


# Strengthening Our Supply Chain

Our global supply chain spans 7,000 suppliers across 70 countries — allowing us to remain resilient and flexible for our customers, while meeting their expectations around quality, cost, and schedule.

In 2024, we spent \$12.3 billion on procurement and supply chain operations, with a major focus on partnering with and purchasing from local businesses to stimulate long-term economic growth and sourcing materials ethically and sustainably.

#### **Procurement & Contract Awards**





# Empowering the Workforce of Tomorrow

We expanded programs that support career advancement for craft professionals, partnered with universities to develop local talent pipelines, and strengthened our commitment to preparing the next generation of builders, engineers, and innovators. These initiatives provided skills development, hands-on experience, and professional growth across the U.S., Saudi Arabia, Poland, and beyond. Through these efforts, we help ensure the workforce is equipped to meet tomorrow's challenges.

#### **Expanding Career Pathways**

We opened new craft professional recruitment centers and hosted career events along the U.S. Gulf Coast, helping local residents explore LNG job opportunities. As part of our partnership with Lamar State College in Port Arthur, Texas, we also launched a women's-only CDL training program to expand opportunities and address the driver shortage. In 2024 alone, more than 2,700 craft professionals at Bechtel earned promotions.

Left Bridges to Prosperity, Rwanda

Above Mobile Launcher 2 Florida U.S.



#### **Advancing Women in Engineering**

Bechtel strengthened its 52-year partnership with the Society of Women Engineers (SWE) with a \$150,000 donation supporting SWENext Clubs worldwide. At SWE's annual conference, we delivered a keynote on inclusivity, and another received the Distinguished Global Leader Award.

#### **Building Poland's Nuclear Workforce**

Bechtel signed agreements with two local universities to launch career programs preparing students to support Poland's first nuclear power plant in Choczewo. The programs include hands-on training, internships, and scholarships.



#### Supporting Saudi Arabia's Vision 2030

Bechtel partnered with Prince Sultan University in Riyadh to launch a new Early Career Program, offering internships and vocational training for students and recent graduates to develop the next generation of Saudi engineers and construction professionals.

#### **Supporting Veterans in Construction**

We advanced career pathways for veterans through our Military to Project program and NABTU's Helmets to Hardhats. In 2024, we welcomed former U.S. Army Green Berets into our Special Forces Construction Immersion Program, and teams across the U.S. supported veterans by raising funds for the Wounded Warrior Project and supporting scholarships for veterans and their families.



# Leading the Way in Suicide Prevention

In the U.S., the construction industry has one of the highest suicide rates of any sector. We cannot ignore these statistics.

To address this critical issue, we launched a five-year partnership with the American Foundation for Suicide Prevention (AFSP), committing \$7 million – the largest single pledge in AFSP's history – to support programs that raise awareness,

reduce stigma, and save lives. Through this initiative, we aim to reach 500,000 construction workers — and that's just the beginning. Together with CEOs from leading construction companies and leaders from the North America's Building Trades Unions, we established a CEO Advisory Council with a mission to develop industry-wide solutions for suicide prevention.

We observed Construction Suicide Prevention Week with a global stand-down and moment of silence. More than 14,000 colleagues across 50+ projects and offices in 11 countries paused work to reflect, raise awareness, and reaffirm our commitment to the well-being of every team member.

# **Building Stronger Communities**

We made a lasting impact by partnering with local organizations and supporting initiatives that foster long-term resilience. Our efforts focused on empowering future innovators, providing critical aid during natural disasters, and strengthening communities through hands-on projects.

#### **Strengthening Sustainability Efforts**

In 2024, Bechtel continued its support for Engineers Without Borders (EWB), with a focus on water, sanitation, and climate resilience initiatives. Bechtel Group Foundation supported EWB Australia's Engineering on Country program, helping First Nations communities in the region access clean, safe, and climate-resilient water sources. The program also trained local community members to operate and maintain water systems for long-term sustainability. In the U.S., our support for EWB enabled student and professional chapters to complete 78 projects focused on improving water, sanitation, and climate resilience, which benefited 325,320 community members across 27 countries and 26 U.S. locations.

#### **Connecting Communities in Rwanda**

In partnership with Bridges to Prosperity, Bechtel volunteers helped build a 133meter suspension bridge in Karongi, Rwanda. The new bridge now provides safe, year-round access to schools, medical facilities, and markets for more than 3,500 residents in four rural communities.

- 1 Society of Women Engineers (SWE), U.S.
- 2 Prince Sultan University, Saudi Arabia
- 3 Bechtel Solar Project, U.S.
- 4 Corpus Christi Liquefaction Project, Texas, U.S.
- 5 Bechtel field survey colleagues, Uganda
- 6 Bridges to Prosperity, Rwanda

#### **Creating Lasting Community Impact**

Through bechtel.org, our social enterprise arm, we partner with nonprofits and community organizations to deliver impact infrastructure that address some of the world's most pressing challenges. In 2024, we helped bring reliable solar power to more than 300 health facilities across Africa, combining philanthropic grants with employee volunteerism to strengthen communities, advance social good, and improve lives.







#### Responding to Disaster, Together

Bechtel donated nearly half a million dollars to recovery efforts in regions affected by natural disasters, including Hurricane Helene in the southeastern U.S. and wildfires in Chile, Canada, and Texas.

#### **Investing in Future Builders**

Now in its 23rd year, the Bechtel Global Scholars Program plays an important role in supporting Bechtel's commitment to investing in the next generation of builders and engineers. In 2024, we awarded 25 scholarships to children of Bechtel colleagues who are attending college for the first time. Administered by Scholarship America, this program supports full-time study at accredited institutions of the students' choice.

Our support of the National Center for Construction Education and Research High School Builder program brought construction education to 15 schools in eight states, benefiting more than 2,000 students and 100 teachers. Bechtel's donation helped provide thousands of textbooks, tools, and pieces of personal protective equipment.

#### **Inspiring STEM Talent**

Bechtel Group Foundation contributed \$500,000 to support the For Inspiration and Recognition of Science and Technology (*FIRST®*) robotics programs in seven countries — Australia, Canada, Chile, India, North Macedonia, U.K., and U.S. — to inspire young people to pursue careers in STEM fields. Bechtel also once again sponsored the *FIRST® LEGO® League* program in Ireland and the U.K.

Through mentoring students, hosting a London tournament at our Chiswick Park office, and underwriting the national finals, the program reached more than 58,000 students — a 33% increase from the previous year.



# Recognition that Reflects Our Values

In 2024, we bolstered communities by creating jobs, supporting local businesses, and delivering essential infrastructure. Along the way, our people and projects earned recognition, not only for what we built but how we built it: with purpose, excellence, and care.



#### **Building Local Talent and Opportunity**

At the Port Arthur LNG project in Texas, Bechtel earned the **Local Employer of Excellence Award** from Workforce Solutions Southeast Texas, recognizing our commitment to investing in the local economy by hiring locally, supporting small businesses, and donating tools and equipment to schools to strengthen technical educational programs.

#### **Delivering Projects with Purpose**

The International Road Federation gave Bechtel and our joint venture partner ENKA the Global Road Achievement Award and Global Program Management Award for our work on the Morava Corridor Motorway project in Serbia. These recognitions celebrate our environmental stewardship and management of road infrastructure programs that improve safety and mobility across the region.

#### **Connecting Communities**

In the U.K., the Bechtel team that delivered the Elizabeth Line project received the **Best Infrastructure Project Award** from the Institution of Civil Engineers. The high-capacity, high-frequency railway — London's largest transport expansion in a generation — was completed by Bechtel in 2023 and continues to transform how people move across the city.

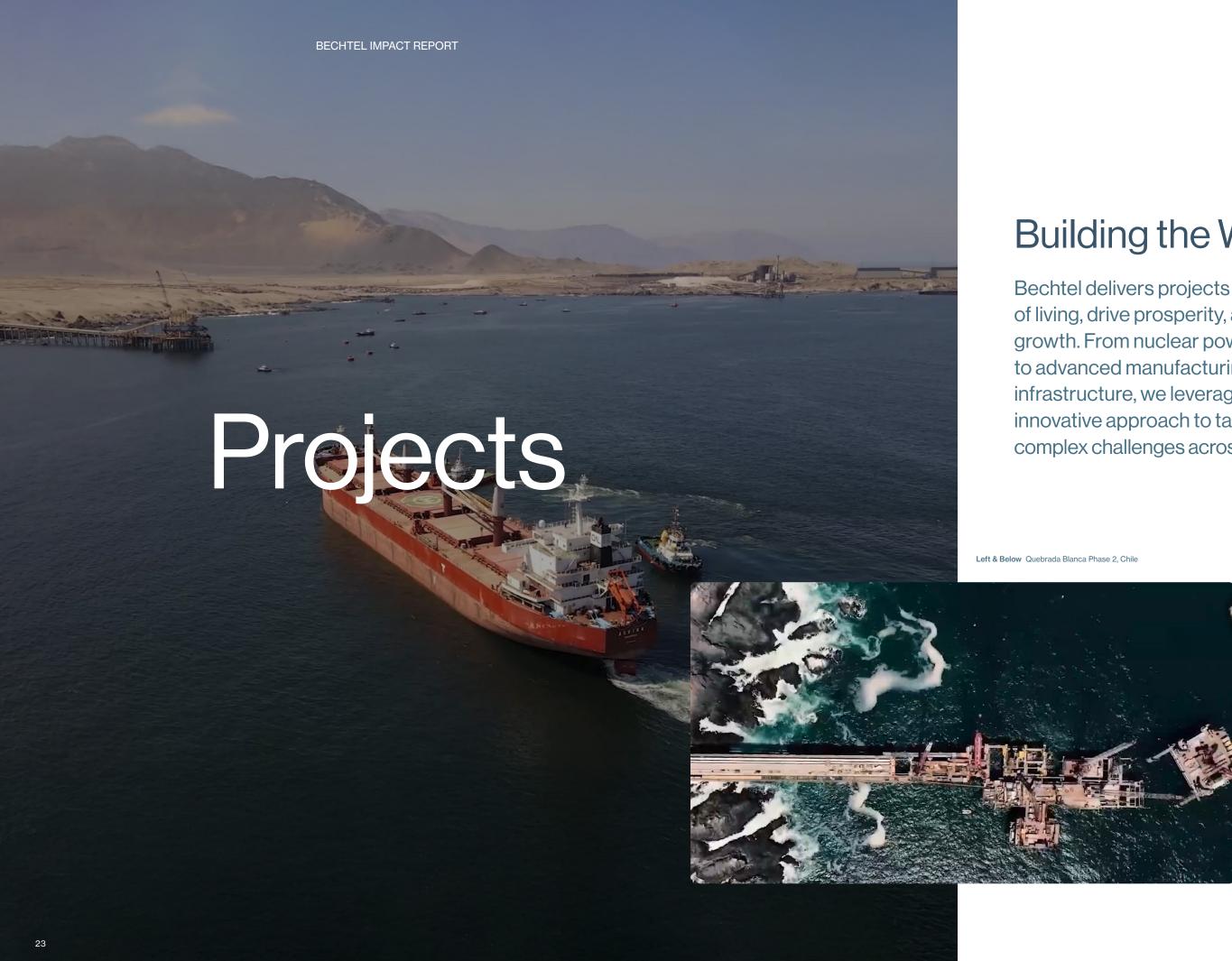
#### **Elevating Small Businesses**

Bechtel's commitment to small businesses helps grow local economies and strengthen supply chains. In 2024, we received the **Dwight D. Eisenhower Award for Excellence in Construction** from the U.S. Small Business Administration, recognizing our long-standing support of small businesses as suppliers and contractors.





- 1 & 2 FIRST® Lego League®, U.S.
- 3 Port Arthur LNG, Texas, U.S.
- 4 Bechtel-ENKA Receives Prestigious International Environmental Award, Serbia
- 5 Award for Excellence in Construction from the U.S. Small Business Administration, U.S.



# Building the Way Forward

Bechtel delivers projects that elevate standards of living, drive prosperity, and support sustainable growth. From nuclear power and transportation to advanced manufacturing and national security infrastructure, we leverage our deep expertise and innovative approach to tackle the world's most complex challenges across a diverse set of markets. Bechtel partners with leading energy companies to build the next generation of infrastructure that powers the world. In 2024, we expanded access to cleaner energy by advancing liquefied natural gas production, scaling hydrogen and carbon capture solutions, and modernizing critical facilities. From strengthening energy security to pioneering new technologies, we are delivering projects that make energy safer, more efficient, and more sustainable.

#### Energy

### Pluto Train 2

Karratha, Australia

Bechtel is delivering the Pluto Train 2 LNG facility for Woodside Energy, Australia's leading natural gas producer. The project expands the existing Pluto LNG facility by adding a second LNG processing train to process gas from the Scarborough field, located in the Carnarvon Basin off the coast of Western Australia. Bechtel is responsible for the full engineering, procurement, construction, commissioning, and start-up scope of work.

In 2024, Bechtel fabricated and shipped 51 modules — totaling 56,000 metric tonnes — from its module yard in Batam, Indonesia, to the project site in Karratha, where they were installed. The team is now focused on commissioning the facility in preparation for the targeted delivery of first LNG in 2026.

Once operational, Pluto Train 2 will have the capacity to process approximately 5 million tonnes of LNG per year, providing one of the lowest carbon intensity sources of LNG delivered into north Asian markets.

**BECHTEL IMPACT REPORT** 

Right Corpus Christi Liquefaction Project, Texas,

Above Pluto Train 2, Karratha, Australia

#### Energy

# Port Arthur LNG Texas, U.S.

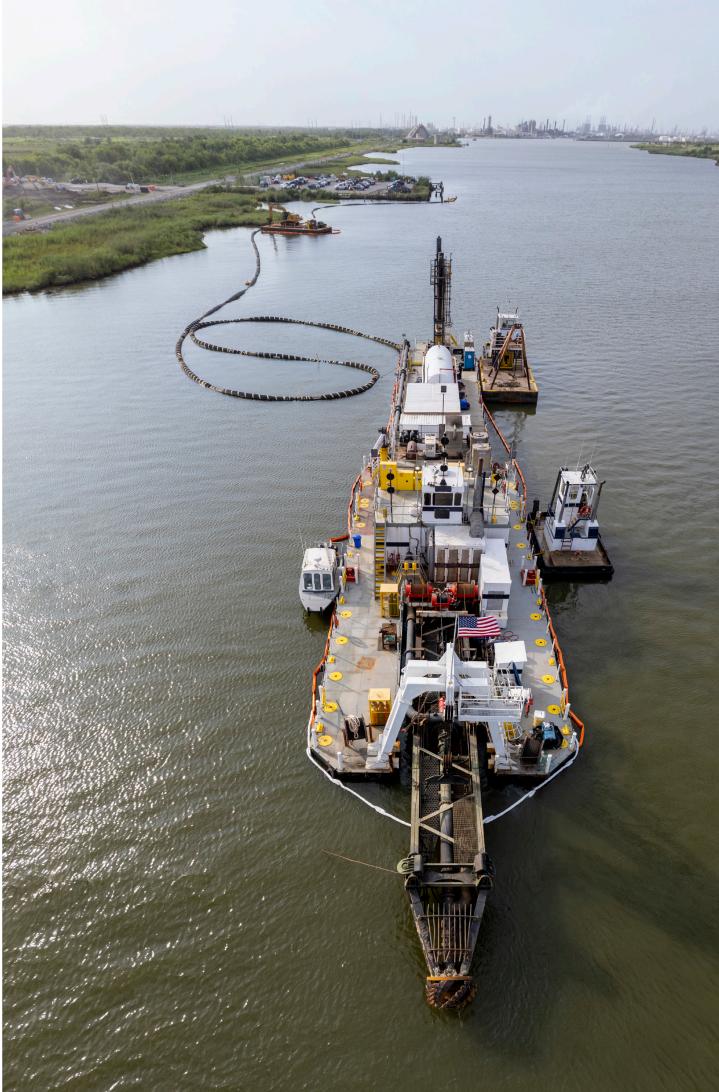
Since receiving Final Notice to Proceed in March 2023, the Port Arthur LNG Phase 1 project has made significant progress by transforming 468 acres of land into an active construction site for a new LNG facility in Southeast Texas. The project's success is deeply connected to the local community, with a 2024 reported local hire rate of nearly 60% and strong partnerships with local vendors. In August 2024, Bechtel was recognized as the Local Employer of the Year by Workforce Solutions Southeast Texas and was nominated for Texas Employer of the Year.

In July 2024, Bechtel signed the EPC contract for the Port Arthur LNG Phase 2 project, which will consist of two liquefaction trains. This proposed expansion, at full capacity, would nearly double the plant's total LNG production capacity to up to 26 million metric tonnes per annum to meet the growing global energy demand for reliable and secure U.S. natural gas.

# Combined Cycle Gas Turbine Power Plant in Baytown

Texas, U.S.

Bechtel, in collaboration with Technip Energies USA, undertook the front-end engineering design (FEED) services for a carbon capture facility at Calpine's existing combined cycle gas turbine (CCGT) power plant in Baytown, Texas. The scope of the project included value engineering, constructability, FEED verification, an estimate, and a proposal for EPC. At the final investment decision, the project will be one of the first full-scale implementations of carbon capture and storage technology at a CCGT in the U.S. Once built, the facility will be designed to capture up to 2 million metric tons of carbon dioxide annually — equivalent to the annual emissions of nearly 450,000 gasoline-powered cars. To reach the U.S. climate goals, 400-1,800 million tons of carbon dioxide need to be captured and sequestered every year by 2050.



# Nebraska Public Power District's Sheldon Power Station

Nebraska, U.S.

Electric Power Research Institute awarded Bechtel a front-end engineering and design (FEED) study to assess the gasification of a mixture of coal and biomass to produce carbon-negative electric power and hydrogen. The project is Phase II of a study funded by a grant from the U.S. Department of Energy (DOE) under the DOE's 21st Century Power Plant initiative. The conceptual design and the pre-FEED were done in Phase I, which included gasification technology selection. The principal biomass to be used is corn stover, which is abundant in Nebraska, with alternatives, including waste plastics, as a future possibility. Carbon dioxide captured during syngas cleanup is planned to be sent to a nearby carbon dioxide pipeline. The findings of the study can potentially lead to a project helping to fulfil Nebraska Public Power District's goal of achieving net-zero carbon emissions from the utility's generation resources by 2050.

# Louisiana LNG Louisiana, U.S.

Bechtel signed an amended and restated EPC agreement with Woodside Energy after the energy company completed its acquisition of Tellurian, the previous owner of the Driftwood LNG project, now renamed Louisiana LNG. As part of the contract, a new Limited Notice to Proceed was initiated, ramping up Bechtel's construction activities and releasing major supply chain packages.

Construction on the project advanced, with significant progress since activities began in March 2022. Once operational, the first three plants are expected to produce 16.5 million metric tonnes per annum of LNG, providing LNG to the growing global market.

Right Port Arthur LNG, Texas, U.S.

#### Energy

#### Rio Grande LNG Texas, U.S.

Work progressed significantly on Rio Grande LNG's Phase 1, Texas' largest privately funded LNG project that will consist of three LNG trains, adding 17.6 million metric tonnes per annum to global LNG capacity. The project reported a local hire rate of close to 75%, reflecting the project's strong importance to the community.

Bechtel and NextDecade also announced their ongoing partnership – signing the EPC contract for Train 4 and related infrastructure at the Rio Grande LNG project. Rio Grande LNG at full scale of five LNG trains will deliver enough energy to heat and cool the equivalent of nearly 34 million U.S. households annually.

### Cane Run Carbon Capture Sustainable Retrofit Kentucky, U.S.

Bechtel signed a front-end engineering and design (FEED) contract with the Electric Power Research Institute (EPRI) for a carbon capture retrofit in Kentucky, U.S. The scope included the preliminary design of a carbon capture addition to the 640-megawatt Cane Run combined cycle gas turbine plant, located 10 miles southwest of downtown Louisville. The retrofit aims to reduce the capital cost of carbon capture solutions through modifications of the power plant and by changing how the gas turbine operates. It uses a new low-emissions and low-energy solvent developed by the University of Kentucky, which is the first time this amine will be applied in a combined cycle flue gas turbine. Bechtel is delivering the project - which is funded by the U.S. Department of Energy (DOE) - for EPRI together with the University of Kentucky. The owner of Cane Run generating station, Louisville Gas and Electric Company, a PPL company, has already been awarded DOE funding to implement a pilot facility at the site.

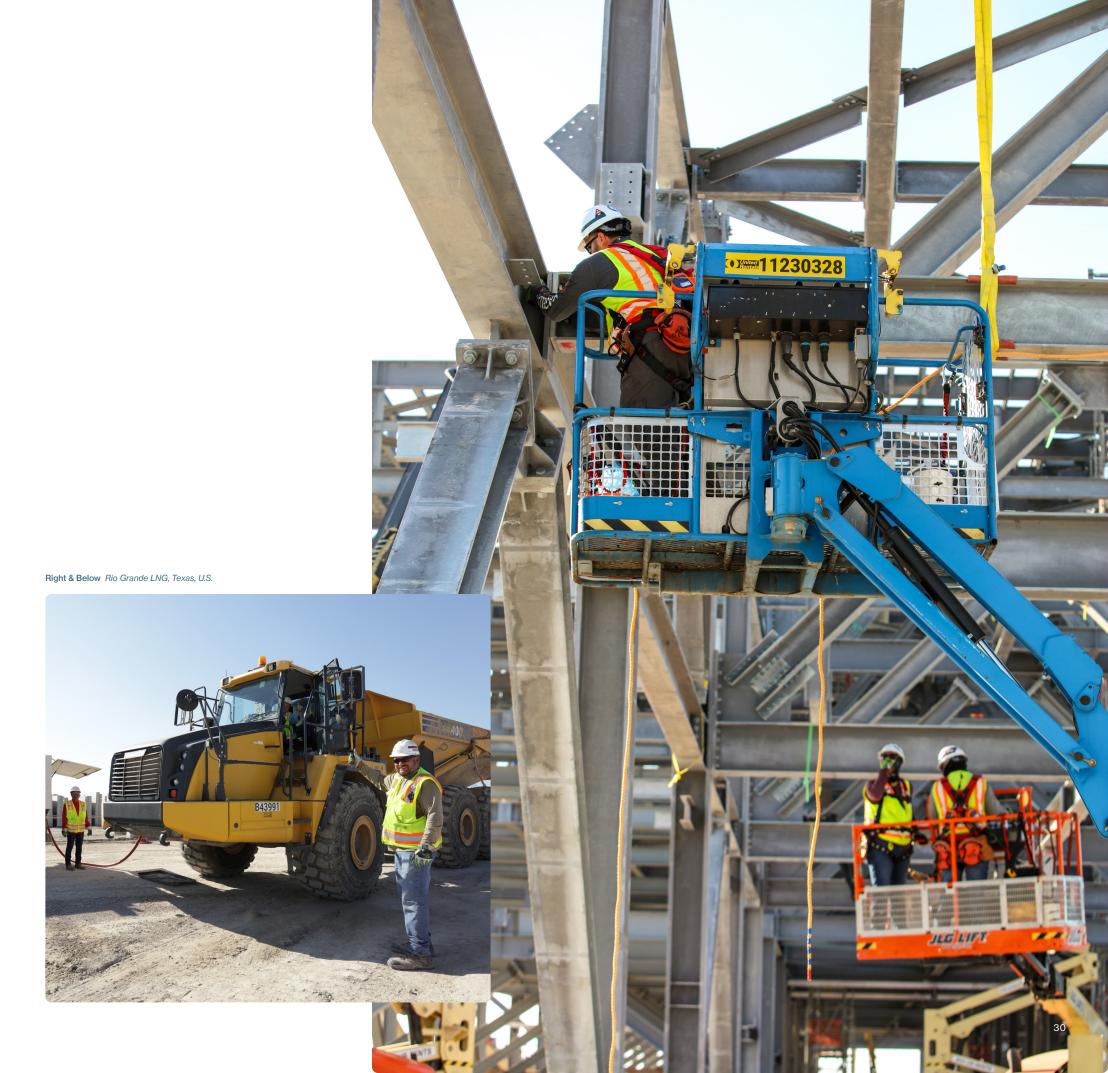
# Baytown Blue Hydrogen

Bechtel was awarded and completed the competitive front-end engineering design, along with two other contractors, for ExxonMobil's Baytown Blue Hydrogen Project. The facility is expected to be the world's largest of its kind and will be located at ExxonMobil's existing manufacturing complex in Baytown, Texas.

Bechtel's design is focused on maximizing modularization to minimize U.S. Gulf Coast jobsite craft professional workhours and on incorporating constructability to reduce

# e-Alto **Aviation Fuel United Kingdom**

Bechtel conducted the preliminary frontend engineering and design (pre-FEED) for the proposed U.K. e-fuels project by Fischer-Tropsch fuels technology company Velocys. The pre-FEED assessed the feasibility and technical requirements to make sustainable aviation fuel (SAF) at the e-Alto plant in the U.K. An estimate was also developed as part of the pre-FEED, funded with support from the U.K. Department for Transport's Advanced Fuels Fund. In the proposed process, SAF would be created by taking green hydrogen produced by electrolysis and carbon dioxide from a local waste-to-energy power station through a reverse watergas shift process to make syngas, which would then be converted into liquid fuels via Velocys' proprietary Fischer-Tropsch technology, e-Alto has the potential to produce approximately 500 barrels of SAF per day. This power-to-liquids project would help avoid almost 70,000 tonnes a year of carbon dioxide emissions.



#### Energy

# Corpus Christi and Sabine Pass Liquefaction **Facilities**

Texas and Louisiana, U.S.

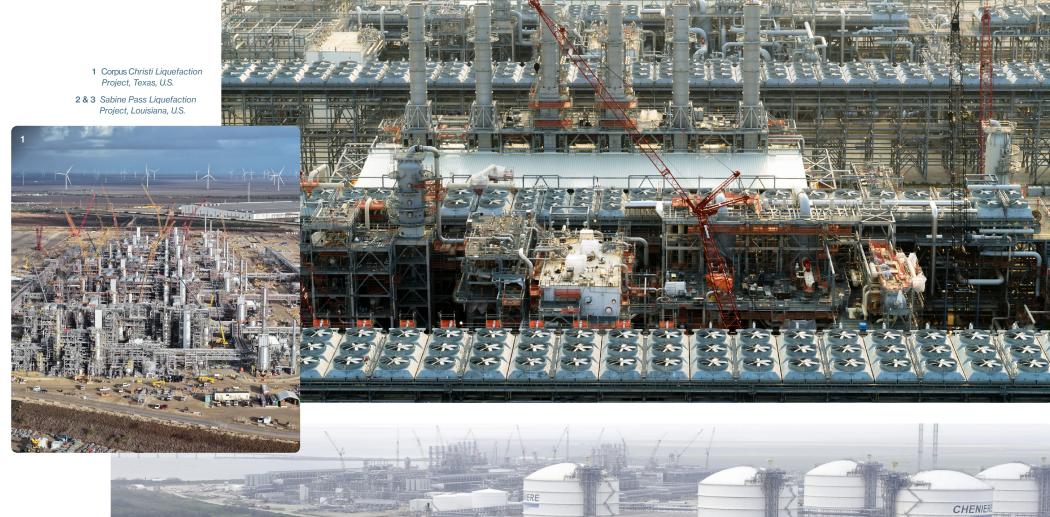
Bechtel has made great strides in delivering Stage 3 of the Corpus Christi Liquefaction project, reporting at the end of 2024 that the expansion is more than two thirds complete. In December, the project team achieved First LNG on the first of seven "midscale" trains using Chart technology that together will add more than 10 million tonnes per annum of LNG production capacity, bringing CCL's total permitted capacity to more than 25 million tonnes per

Expansion work at Cheniere's U.S. Gulf Coast projects continues, with Bechtel having completed engineering work related to the Corpus Midscale 8 & 9 project and the Sabine Pass Liquefaction Stage V project. Cheniere is the largest producer of LNG in the U.S., and to date, Bechtel has built 100% of Cheniere's total U.S. Gulf Coast production capacity, which is currently approximately 45 million tonnes per annum.

# Prince Rupert Gas **Transmission** Pipeline British Columbia, Canada

Bechtel and its Canadian affiliate, Bantrel, have received Full Notice to Proceed to provide project management and technical services for further pre-EPC development for the Prince Rupert Gas Transmission (PRGT) natural gas pipeline in British Columbia. PRGT is co-owned by Western LNG and Nisga'a Nation and will extend nearly 750 kilometers from northeastern British Columbia to the proposed Ksi Lisims LNG export terminal on Pearse Island. This pipeline is essential for expanding Canada's natural gas export capacity and supplying responsibly produced, lower-carbon natural gas to growing markets.

With equal ownership in PRGT, the Nisga'a Nation is paving the way for greater Indigenous involvement in Canadian resource development. The development of PRGT will engage local communities for the procurement of a variety of goods and services, and the project co-owners plan to discuss equity opportunities with interested First Nations, enhancing the prosperity of Indigenous communities across northern British Columbia.



# Poly Vinyl Chloride Project

Bechtel is expanding its longstanding relationship with Reliance Industries Limited on one of the world's largest projects aimed at enhancing the production capacity of Poly Vinyl Chloride (PVC) in India. Bechtel was awarded the Project Management Consultancy for the PVC Program as well as Engineering, Procurement, and Construction Management (EPCM) services for associated offsites and utilities in India.

This project will more than triple the existing PVC capacity with the construction of worldscale facilities at Dahej, Gujarat, and Nagothane, Maharashtra. PVC is one of the most widely used and versatile plastics in the world, with applications ranging from construction materials to medical devices. The expansion will secure Reliance's position as one of the leading global producers of this critical industrial material. Bechtel's involvement will help maximize the operational efficiency of existing and new utilities and infrastructure.





Bechtel partners with governments and industry leaders to deliver innovative solutions to some of the world's most complex environmental cleanup challenges. In 2024, we made significant progress advancing key milestones across our cleanup projects, furthering our mission to safely transform hazardous sites into sustainable spaces. Our work protects communities and ecosystems while ensuring a cleaner, safer environment for future generations.

#### **Environmental Cleanup**

# Waste Isolation Pilot Plant

New Mexico, U.S.

Bechtel manages and operates the Waste Isolation Pilot Plant (WIPP) for the U.S. Department of Energy (DOE). Located in a salt formation more than 2,100 feet underground, WIPP is the world's only operating geologic underground repository for defense-related transuranic nuclear waste. The facility receives and safely stores waste from DOE sites around the country.

In 2024, WIPP celebrated its 25th anniversary, marking a quarter-century of safe, effective waste disposal. The team completed construction on the new Safety Significant Confinement Ventilation System facility — a state-of-the art, large-scale ventilation system. WIPP also achieved its best shipment performance in 10 years, meeting DOE's annual goal by receiving 450 waste shipments from generator sites nationwide.

WIPP plays a vital role in the U.S. government's efforts to manage nuclear waste, ensuring the long-term safety of the surrounding environment and communities. This project highlights Bechtel's commitment to delivering innovative, high-impact solutions for infrastructure that strengthens national security and the energy sector.

#### **Environmental Cleanup**

# **Hanford Waste** Treatment and **Immobilization** Plant

Washington, U.S.

Bechtel continues to partner with the U.S. Department of Energy on one of the most complex cleanup efforts in history. We are designing, constructing, and commissioning the Hanford Waste Treatment and Immobilization Plant - the world's largest radioactive waste treatment plant - to safely stabilize plutonium byproduct waste from World War II and the Cold War. Our goal is to safely dispose of this historical waste while protecting the Columbia River and surrounding communities in Washington State.

In 2024, we achieved three historic milestones: We heated the second melter to our target 2,100 degrees Fahrenheit, completed the first set of test glass pours into stainless-steel storage containers from the second melter, and made final preparations to begin cold commissioning bringing the plant closer to transforming nuclear waste for safe disposal.

# Ranger Rehabilitation Project Australia

Bechtel is supporting Rio Tinto in delivering the Ranger Rehabilitation Project on behalf of Energy Resources of Australia. The project focuses on safely and efficiently rehabilitating and closing the former Ranger uranium mine in line with the wishes of the Mirarr People.



Immobilization Plant, Washington, U.S.

Bechtel is working with customers to build advanced manufacturing capabilities that are powering the technologies of tomorrow. In 2024, we supported projects across semiconductors, batteries, and electric vehicle infrastructure, delivering customizable EPC solutions with speed and certainty.

#### Manufacturing & Technology

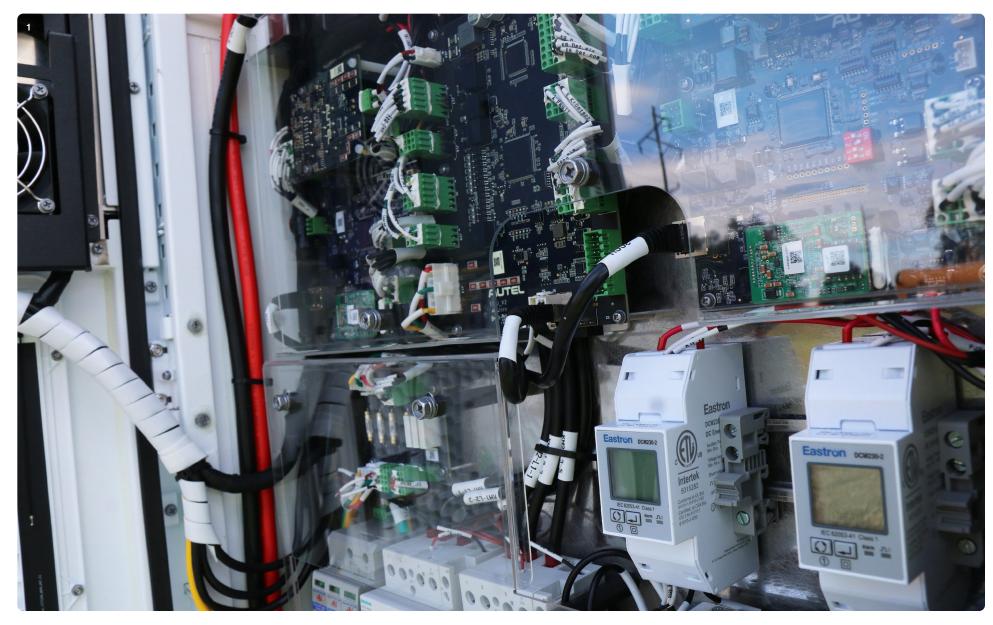
# First Student

Bechtel is partnering with First Student, North America's largest school bus operator, to support the electrification of its fleet. First Student aims to convert 30,000 school buses to electric by 2035, significantly reducing greenhouse gas emissions and enhancing student safety.

In 2024, Bechtel began building electric vehicle (EV) charging stations for First Student, marking a significant step toward sustainable student transportation. We completed the first set of EV charging stations in Billings, Montana, and started constructing a second set of stations in Galesburg, Illinois.

This project highlights the role Bechtel plays in driving the transition to a low-carbon future while supporting safer and more reliable transportation for communities across North America. Our expertise spans the electrification market, offering services from feasibility studies and site selection to front-end engineering design, procurement services, construction management, and project management.







- 1 First Student, U.S.
- 2 Semiconductor Plant Facility, Ohio U.S.
- 3 Battery Manufacturing Facilities, U.S.



#### Manufacturing & Technology

# Semiconductor Manufacturing Facility Ohio, U.S.

Bechtel is building a 2.5 million-square-foot semiconductor manufacturing facility in Ohio for a leading technology company. Once complete, the project will help revitalize chipmaking in the U.S. and restore dependability and resilience to the global semiconductor supply chain.

The project was awarded Bechtel's Innovation of the Year in 2024. Bechtel integrates augmented reality, digital work packages, predictive analytics, Al-managed laydown yards, and advanced field tools to enhance safety, efficiency, and productivity

The team also received the 2024 Bechtel Environmental, Safety & Health Excellence Award for a best-in-class Mental Health First Aid Program. The project has achieved come. 8 million job hours without a lost time incident.

To date, the semiconductor project has placed 390,000 cubic yards of concrete (enough to build 13 football stadiums), installed 145,000 linear feet of underground

Semiconductor pipe (the length of 7,250 parking spaces), and installed 30,000 tons of structural steel and rebar (the approximate weight of 10,000 African elephants).

# Battery Manufacturing **Facilities**

Bechtel provided construction management consultancy services for innovative battery manufacturing facilities in the U.S.

In 2024, the team completed over 500 pre-inspections covering mechanical, structural, and electrical systems to ensure operational readiness. The project enhanced safety procedures – including lockout-tagout, commissioning, and electrical safety standards - and achieved zero safety incidents on site. The team also supported our customer with local code compliance and helped advance facilities toward certificates of occupancy.

Once operational, these facilities will produce batteries that power everyday life and enable electric vehicles for decades to

# FEED for **Facility** Germany

Bechtel performed front-end engineering and development of a new semiconductor manufacturing facility planned in Germany. The scope included developing a baseline cost estimate and schedule, and defining and assessing value engineering opportunities - including options to expand offsite manufacturing.

Bechtel teams across the U.S., India, London, Ireland, and Germany supported the project, while enhancing collaboration with partners and suppliers in Germany.



Bechtel is advancing the responsible development of critical minerals essential for powering the technologies of tomorrow. In 2024, we made significant progress in delivering world-class assets, including copper concentrators, lithium processing facilities, aluminium smelters, and desalination plants. Our innovative solutions are helping meet global demand, drive economic growth, and fuel the green energy transition.

#### Mining & Critical Minerals

# Los Pelambres Copper Mine Salamanca, Chile

Bechtel built the original copper concentrator at the Los Pelambres mine in the 1990s and has delivered multiple expansions and upgrades over the past 25 years, helping Antofagasta Minerals - one of the world's largest copper producers – sustain production in Chile.

In early 2019, we began construction of the INCO MLP project at Los Pelambres, which was inaugurated in March 2024. This project, the first self-perform direct-hire project for our Mining & Metals unit in South America, expands the mine's capacity through a new concentrator line, a reverse osmosis desalination plant, and a 61-kilometer water transport system.

The concentrator expansion will increase throughput by 40,000 tonnes per day through the addition of a grinding line with a SAG mill and ball mill, a flotation line, and the expansion of the existing stockpile. Once complete, the desalination plant will filter 400 liters of water per second to support industrial use at the mine.



#### Mining & Critical Minerals

## Quebrada Blanca Phase 2

Tarapacá, Chile

Bechtel helped extend the life and increase the output of Teck's Quebrada Blanca copper mine, tapping one of the world's largest undeveloped copper resources. The project – which was Chile's largest mining project in recent years - included a 143,000-tonnes-per-day copper concentrator, a high-capacity desalination plant, and a 103-mile (165-kilometers) water supply pipeline.

The mine began producing and shipping the copper concentrate in 2024. It is expected to generate 316,000 tonnes of copper-equivalent production per year during its first five full years, helping close the gap between global supply and rising demand for copper.



- 1, 2, 3 Quebrada Blanca Phase 2, Tarapacá, Chile
- Los Pelambres Copper Mine,

# Yanacocha Water **Treatment**

Bechtel is supporting Newmont to develop two of South America's largest acid water treatment plants in Cajamarca, Peru. These critical facilities will treat and recover water at South America's largest gold mine, while also helping to protect the environment, foster economic growth, and create jobs for local communities.

# Collahuasi C20+

Bechtel is supporting the expansion and efficiency improvements at one of the world's largest copper operations as the project management consultant for the C20+ desalination plant. The plant will transport seawater to the Collahuasi mine's facilities 4,400 meters above sea level, helping to meet global demand while conserving precious freshwater reserves. The C20+ project team received Bechtel's Quality Excellence Award for their exceptional performance.

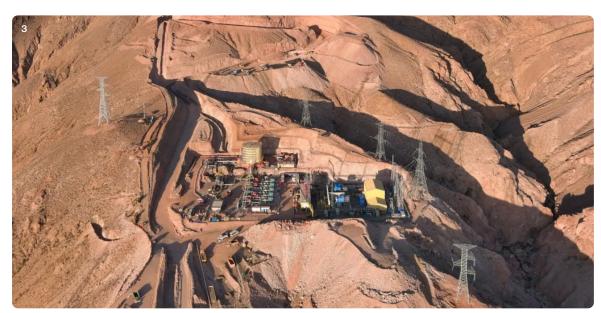
## **Parker Point** Port

Karratha, Australia

Bechtel is replacing critical machinery at Parker Point Port to sustain the capacity and efficiency of this iron ore port for our customer Rio Tinto in Western Australia. In 2024, the team started engineering execution and mobilized to site for brownfield upgrades and infrastructure construction required to support delivery and installation of the new reclaimers. The project achieved a significant milestone with the first steel cut for the first of three reclaimers.

#### Jansen Stage 1 Canada

A joint venture of Hatch and Bantrel - a Bechtel majority-owned company - is delivering the Jansen Stage 1 potash project in Canada for BHP. Once Stage 1 is complete, the mine will produce approximately 4.15 million metric tonnes per year of potash, a designated critical mineral in Canada due to its importance as a key soil nutrient. Jansen will be BHP's first potash mine and will be one of the world's largest. The project is expected to achieve first output in late 2026, followed by a twoyear ramp-up period.







1 & 2 Thacker Pass, Nevada, U.S.

Los Pelambres Copper Mine, Salamanca, Chile

# Novalith *u.s.*

Novalith Technologies LLC selected Bechtel to perform an engineering study for Phase 1 of their Atlas lithium project in the U.S. The project aims to use innovative, first-of-its-kind technology to create a more cost-effective and sustainable lithium supply chain.

# Ar Rjum Gold

Saudi Arabian Mining Company (MA'ADEN) awarded Bechtel the Ar Rjum gold project feasibility study update and related works. The scope includes increasing the design capacity from 6 million tonnes to 8 million tonnes per year and preparing for execution. The study will be completed early 2025.

# Ujina Growth

Bechtel is helping develop the Collahuasi copper mines to increase capacity and meet the global demand for copper. This expansion project supports critical supply chain efforts in the copper industry, reinforcing sustainability and long-term growth.

# Alba New Replacement Line

Bechtel completed a feasibility study for Alba's New Replacement Line at a new site adjacent to the Alba plant. We are now conducting additional studies to explore the sustainable expansion of the world's largest aluminum smelter on a single site, reinforcing sustainability and long-term growth.

# Thacker Pass Nevada, U.S.

Bechtel is the engineering, procurement, and construction management contractor for the Thacker Pass lithium mine and processing facility in northern Nevada. With early works completed and a \$2.26 billion loan from the U.S. Department of Energy, this critical energy transition project is set to move into heavy construction in 2025.

Once Phase I is complete, Thacker Pass will produce more than eight times the current U.S. output of lithium carbonate for electric vehicle batteries.

Bechtel is committed to delivering cuttingedge infrastructure and technology solutions that ensure national defense readiness. In 2024, we advanced key defense and security projects, including the Blue Grass Chemical Agent-Destruction Plant, Lawrence Livermore National Laboratory, and the Uranium Processing Facility. Our work strengthens the nation's nuclear defense, enhances the safety and security of critical assets, and supports the U.S. and allied governments in responding to emerging threats and geopolitical challenges.

#### National Defense & Security

# Mobile Launcher 2

Bechtel is proud to partner with NASA in its mission to safely send astronauts to the Moon and Mars as part of the Artemis program. We are designing, building, testing, and commissioning Mobile Launcher 2 (ML2) — a critical launch platform that will support Space Launch System (SLS) operations for NASA's future deep space exploration missions.

In May 2024, Bechtel worked closely with NASA to lift the launcher's 2.6-million-pound base and place it onto its mounts, positioned 25 feet above the ground. Our team — including more than 600 craft professionals at peak construction — is now assembling and integrating the rest of the 393-foot-tall mobile launcher to precise quality standards, ensuring the system is ready for future space missions.



BECHTEL IMPACT REPORT

#### National Defense & Security

### Blue Grass Chemical Agent-Destruction Plant Kentucky, U.S.

A Bechtel-led team safely destroyed the entire chemical weapons stockpile at the Blue Grass Army Depot near Richmond, Kentucky, which held over 520 tons of chemical agents in artillery projectiles, and M55 rockets. The Blue Grass Chemical Agent-Destruction Plant is now focused on the closure phase, a multi-year effort that involves decontaminating the facility and dismantling the equipment to ensure a safe and responsible transition.

# Sentinel *u.s.*

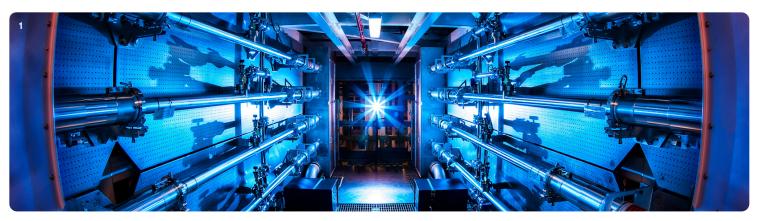
Bechtel is partnering with Northrop Grumman to design and construct the launch infrastructure for Sentinel, the U.S. Air Force's next-generation ground-based strategic deterrent system. This system will replace the existing Minuteman III system as the land-based leg of the U.S. strategic nuclear deterrent, ensuring a credible and modern defense capability.

Currently in the Engineering and Manufacturing Development (EMD) phase, Bechtel is focused on reimagining, designing, and delivering constructable solutions for launch infrastructure that will support the flight test program and production integration across three Air Force bases in the western United States.

# Uranium Processing Facility Tennessee, U.S.

Bechtel is constructing a new facility at the Y-12 National Security Complex to ensure the long-term viability, safety, and security of enriched uranium capabilities in the U.S. This modernization will strengthen the country's nuclear defense, reduce global threats, improve worker safety, and lower operating and maintenance costs. In 2024, the Uranium Processing Facility achieved all five of its customer milestones, exceeded cost and schedule expectations, and received Bechtel's Environmental, Safety, and Health Project of the Year award.

- 1 Lawrence Livermore National Laboratory, California, U.S.
- 2 Blue Grass Chemical Agent-Destruction Plant, Kentucky, U.S.
- 3 Y-12 National Security Complex, Tennessee, U.S.







# Lawrence Livermore National Laboratory

Since 2007, Bechtel has managed and operated the Lawrence Livermore National Laboratory (LLNL) for the National Nuclear Security Administration (NNSA), whose work strengthens global security and advances scientific discovery. Bechtel's team supports the lab's mission to ensure the safety, security, and effectiveness of the nation's nuclear deterrent, while driving advancements in areas such as enterprise resilience, counterterrorism, defense and intelligence, energy security, and climate resilience.

In 2024, El Capitan was unveiled as the world's most powerful supercomputer and the first exascale system dedicated to national security. As NNSA's first exascale supercomputer, El Capitan is a critical asset in advancing nuclear weapon science and scientific discovery, providing the computational power necessary to ensure the safety, security, and reliability of the nation's nuclear deterrent.

# Pueblo Chemical AgentDestruction Plant Colorado, U.S.

As part of the U.S. Department of Defense's commitment to the 1997 Chemical Weapons Convention, Bechtel was contracted to design, build, test, operate, and close the Pueblo Chemical Agent-Destruction Plant, a first-of-a-kind facility at the U.S. Army Pueblo Chemical Depot (now known as Chemical Materials Activity-West) in Colorado. The facility safely destroyed 2,600 tons of mustard agent from over 780,000 projectiles and mortar rounds. The final munition was destroyed on June 22, 2023, months ahead of schedule. In 2024. decontamination and disassembly efforts began, marking the first phase of the plant's closure. Phase 2, demolition, is on track to begin in 2026.

# Y-12 National Security Complex

Bechtel-led Consolidated Nuclear Security LLC (CNS) has managed and operated the Y-12 National Security Complex in Oak Ridge, Tennessee, since 2014. The complex supports the Department of Energy's (DOE) National Nuclear Security Administration (NNSA) in its mission to maintain the safety, security, and effectiveness of the U.S. nuclear deterrent.

In 2024, CNS employees achieved the most hours worked without a recordable injury in more than 10 years. The site also surpassed its goals, delivering 104% of its fiscal year mission commitment to the customer.

Key project milestones included preparing the complex for the future Lithium Processing Facility site, demolishing the Elza switchyard, and completing the West End Protected Area Reduction. These efforts allow the DOE's Office of Environmental Management to remove large, outdated facilities and optimize site footprint.



Bechtel is at the forefront of delivering safe, reliable nuclear energy to meet the growing global demand for clean power. Our unparalleled expertise, built over decades, includes the construction of over 150 nuclear plants worldwide. In 2024, we worked on two groundbreaking projects, reaffirming us as industry leaders.

#### **Nuclear Power**

# **Natrium** Demonstration Project

Wyoming, U.S.

**TerraPower** 

Wyomina, U.S.

Bechtel is TerraPower's engineering, procurement, and construction partner on the first-of-a-kind Natrium Demonstration Project in Kemmerer, Wyoming.\* The project is part of the U.S. Department of Energy's Advanced Reactor Demonstration Program.

Set against the backdrop of a retiring coal plant, this advanced energy demonstration project seeks to validate the design, construction, and operational features of the Natrium system, which uses a sodiumbased technology used to cool the reactor instead of water. The project will bring a commercial operating, advanced nuclear reactor online that will deliver reliable, carbon-free power to the electrical grid and provide jobs in Wyoming for decades to come.

In 2024, the team made significant progress, including submitting the Construction Permit Application to the Nuclear Regulatory Commission and the Industrial Siting Permit to the state. We also broke ground on the Test and Fill Facility (TFF), completed the installation of six steel-lined subsurface shafts that will house testing equipment, and modified U.S. Highway 189 to create an intersection and permanent site entrance. In addition, we achieved the ability for digital completion of nuclear safety related construction records.

The Natrium Demonstration Plant's design represents a major leap forward in clean, sustainable power generation. Bechtel is proud to help bring this visionary project to life, shaping the future of energy for generations to come.

\*Subject to DOE Cooperative Agreement No. DE-NE0009054

#### **Nuclear Power**

# Plant Vogtle Units 3 & 4

Bechtel was selected by Power and Southern Nuclear in 2017 to complete the construction of two new AP1000 nuclear reactors (Units 3 and 4) at Plant Vogtle in Waynesboro, Georgia. They are the first new nuclear reactors to be built in the United States in more than 30 years.

In 2024, Bechtel completed construction, and both Units 3 and 4 entered commercial operations, which means all testing is complete and the units are now available for reliable dispatch. With this milestone, Plant Vogtle became the largest generator of clean energy in the U.S., with each unit capable of generating enough electricity to power an estimated 500,000 homes and businesses.

# Poland AP1000® Nuclear Power Plant

Bechtel is building Poland's first nuclear power plant at the Lubiatowo-Kopalino site in Pomerania. In partnership with Westinghouse Electric Company and Polish investor Polskie Elektrownie Jądrowe, the consortium will deliver three AP1000® reactors for the country's inaugural nuclear energy program.

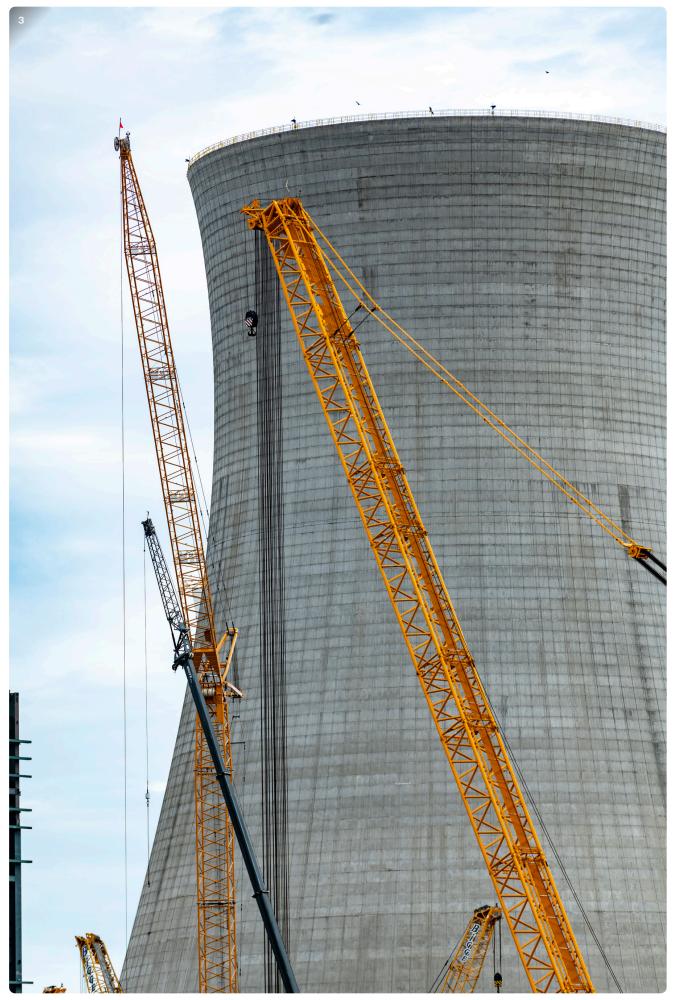
In 2024, Bechtel began field work on site, starting with geological surveys to assess the geological and hydrogeological conditions at the plant's location. The project also hosted six Supplier Days and engaged with nearly 1,000 representatives from companies, including local suppliers, interested in participating in the project.

In addition, Bechtel led nuclear energy career development programs with leading Polish technical universities to train the next generation of Polish nuclear professionals who will support current and future projects in the country.

1, 2, 3 Plant Vogtle Units 3 & 4, Georgia, U.S.







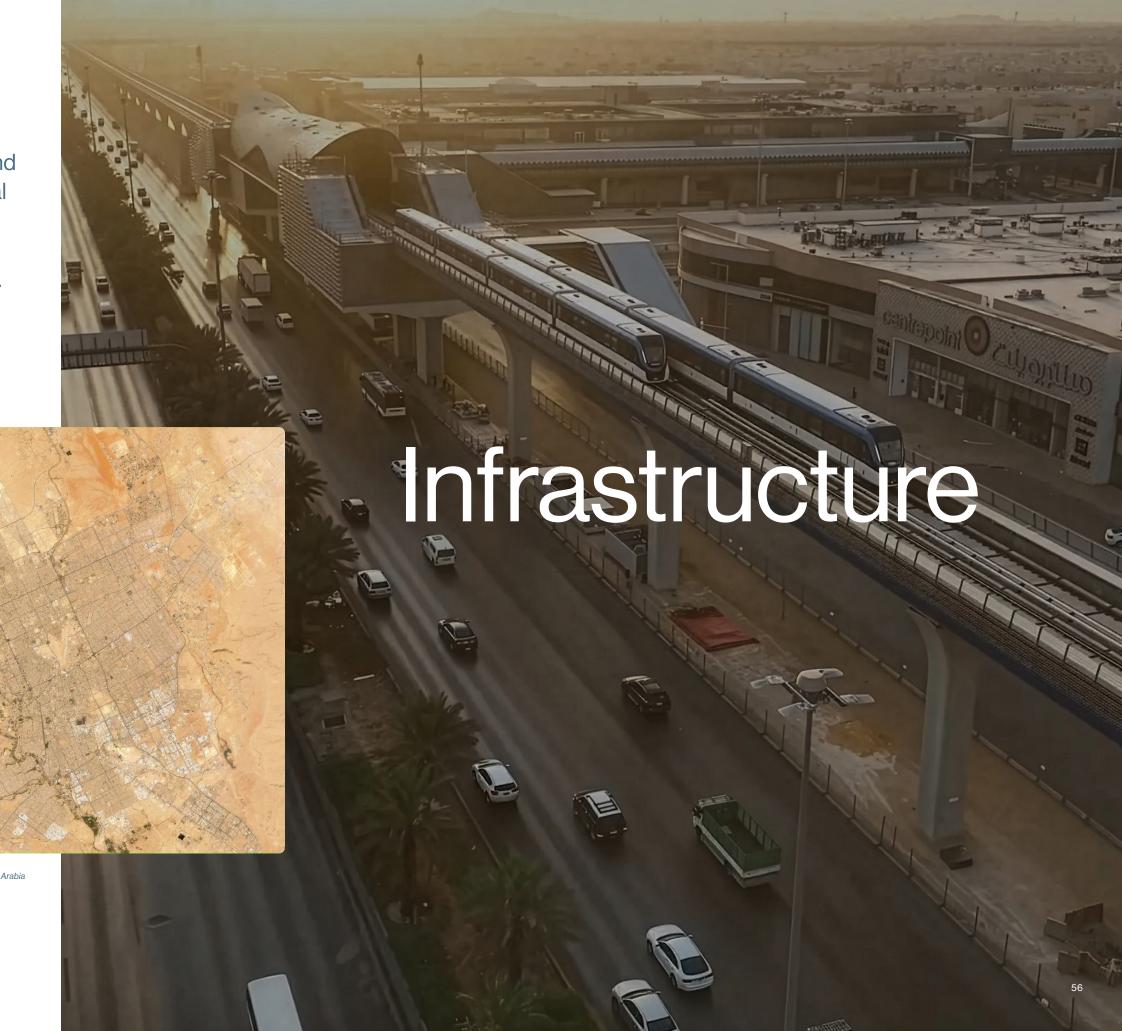
Bechtel leads in delivering transformative infrastructure that connects people, strengthens communities, and creates long-term economic opportunities. From motorways and airports to rail systems and bridges, we combine expertise, innovation, and dedication to deliver projects of expectational quality and lasting impact. In 2024, we continued to reach new milestones, shaping the future of cities and economies worldwide.

#### Infrastructure

#### Riyadh Metro Riyadh, Saudi Arabia

Bechtel celebrated the successful completion and official inauguration of the Riyadh Metro network in November 2024. A Bechtel-led consortium designed and built the Blue and Red Lines (Lines 1 and 2) of Saudi Arabia's first underground metro system, including the delivery of train cars, signaling, electrification, and integration of the new lines with the existing system.

Since breaking ground in 2014, the Riyadh Metro has been the world's largest under-construction rail project — and one of the largest in Bechtel's history. The metro will serve 1.2 million passengers daily, with the capacity to expand to 3.6 million, addressing the city's growing population and reducing traffic congestion and air pollution.



**BECHTEL IMPACT REPORT** 

#### Infrastructure

### Western Sydney International Airport Sydney, Australia

Bechtel is delivering one of Australia's largest infrastructure projects — a world-leading, full-service airport for international, domestic, and freight flights that will handle 10 million passengers annually. In 2024, we completed the roofing works and successfully conducted the first test flight on the new 3.7-kilometer runway, bringing the project to nearly 90% completion.

#### New Murabba Riyadh, Saudi Arabia

Bechtel is providing project management services for the masterplan and site-wide infrastructure of New Murabba, a visionary urban development in Riyadh, Saudi Arabia. In 2024, we reached 86% excavation completion on the Mukaab, a 400-meter (1,300-foot) tall, cube-shaped skyscraper that will be the centerpiece of New Murabba. The team has moved over 10 million cubic meters of earth as part of this major milestone.

# Sydney Metro West

Sydney, Australia

Bechtel helped deliver Sydney Metro West, Australia's largest public infrastructure project that connects Greater Parramatta and central Sydney. The rail line, complete with nine stations, doubles the rail capacity between the two areas, reduces travel times, and expands access to public transit. The project will create around 10,000 direct and 70,000 indirect jobs during construction.

Above Western Sydney International Airport, Sydney, Australia

Right Morava Corridor Motorway, Serbia



# BART Silicon Valley Extension

The Santa Clara Valley Transportation Authority selected Bechtel to provide construction management services for the Bay Area Rapid Transport (BART) Silicon Valley Phase II extension, which will connect North San Jose and Santa Clara residents with the Bay Area's iconic transportation system. Bechtel previously led the design and construction of the original BART system and oversaw the engineering and construction of Phase I of the Silicon Valley Line, which opened to passengers in 2020. In April 2024, we hosted a ceremonial groundbreaking for Phase II, with construction set to begin in early 2025.

# Ontario Line

Bechtel is the delivery partner for Metrolinx's Ontario Line, a transformative 15.6-kilometer rapid transit project that will revolutionize Toronto's transportation network. In 2024, we began work on two new bridges in the northern segment, which will carry trains across the Don Valley and through the Thorncliffe and Flemingdon Park neighborhoods, and an excavation for the tunnel boring machine (TBM) launch site near Exhibition Station.

The Ontario Line will feature 15 stations, six interchanges with other modes of transit, passenger pick-ups and drop-off areas, and a maintenance and storage facility. Once complete, it will significantly improve travel within Toronto and surrounding areas, connecting Exhibition Place to downtown and significantly reducing travel times.



# Morava Corridor Motorway

Bechtel, in a joint venture with ENKA, is delivering the 112-kilometer Morava Corridor Motorway, a transformative project that is enhancing connectivity and driving economic growth. In 2024, we opened the second section of the motorway to traffic, completing over half of the project and reducing travel times by 50%. The motorway will improve the flow of people and goods, attracting investment and further boosting the region's economy.

The Bechtel-ENKA team earned two prestigious awards from the International Road Federation for their work on the project: the Global Program Management Award for delivering world-class infrastructure with program management excellence and the Environmental Stewardship Award for integrating flood protection measures with pioneering environmental initiatives that prioritize biodiversity preservation.

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#### Renewables

# Cutlass Solar 2

Bechtel completed the Cutlass Solar 2 project, a 218-megawatt solar energy facility built for Sabanci Climate Technologies. The facility is now generating electricity at full capacity, providing enough clean, renewable energy to power 40,000 homes — an impressive milestone we reached ahead of schedule.

The team used cutting-edge technology, like drones and survey robots, to expedite the schedule and enhance quality, offering a glimpse into the future of more efficient and data-driven construction practices.

Cutlass Solar 2 is Bechtel's second solar facility in Fort Bend, following the completion of the neighboring Cutlass Solar 1 plant in 2023. Together, these projects help drive the energy transition and represent a significant milestone in Bechtel's renewable energy portfolio.

# Copperton Phase 2 Solar

Bechtel is designing and building Copperton Phase 2, a new solar power facility at Rio Tinto's Kennecott copper mine in Utah. Located next to Kennecott's existing 5-megawatt solar plant, the two facilities will reduce the mine's emissions by approximately 6%, or 21,000 tons of carbon dioxide equivalent every year — the same as removing around 5,000 gas-powered cars from the road.

# Sunfish Solar 2 Michigan, U.S.

Bechtel is partnering with Hecate Energy to design and build Sunfish Solar 2, a 1.0-gigawatt solar development and one of Michigan's largest solar facilities. The project supports the state's goal of generating 50% of its energy from renewable sources by 2030.

# **BECHTEL IMPACT REPORT** Innovati Left & Above Bechtel's Low Energy Ejector Desalination

# Pioneering Better Solutions

Innovation is at the heart of how Bechtel builds a better world. We advance breakthrough technologies that tackle critical challenges in energy, mining, infrastructure, and renewables from water recovery systems and automated solar installation to regenerative cooling technology for data centers and advanced manufacturing facilities. These innovations are not only improving how we deliver projects for customers but also creating a cleaner, safer, more efficient future for communities around the world.

# Waste Desalination and Reuse Technology

System (LEEDS), Texas, U.S.

Water scarcity is one of the world's most pressing challenges. Our Low Energy Ejector Desalination System (LEEDS) offers a breakthrough solution - an energyefficient process that recycles industrial wastewater into a reusable resource for farms, industry, and communities.

By making water reuse more accessible and affordable, LEEDS provides a sustainable alternative to conventional desalination, which is often too energyintensive and costly for regions facing water stress. Our 2024 pilot project in the Permian Basin demonstrated:

- Up to 50% reduction in energy use compared to traditional desalination
- · 400 barrels of produced water treated daily during operations
- · Full achievement of targets for recovery, energy efficiency, and water quality

We are now advancing plans for a small commercial facility that will demonstrate the system's capabilities at scale.

#### Regenerative Cooling Technology

Up to 10% of the world's greenhouse gas emissions come from heating, ventilation, and air conditioning (HVAC) systems.

Bechtel-developed Crescendō technology cuts energy use in HVAC systems by 5% by using a high-efficiency, regenerative cooling cycle to capture and reuse energy lost in current systems.

By replacing traditional vapor compression refrigeration, this technology helps reduce emissions by over 400 tonnes of carbon dioxide equivalent annually. It also enables the use of less-toxic refrigerants that produce fewer greenhouse gas emissions and could even allow for the use of carbon dioxide as a refrigerant instead of the hydrocarbon-based refrigerants used today.

For almost a decade, Bechtel, in partnership with Purdue University, has refined and validated its design. In 2024, researchers at Purdue used 3D computational fluid dynamics to model refrigerant behavior in

Crescendō, marking the first time accurate computer models have simulated refrigerant behavior in 3D.

Crescendō made its commercial debut at a new cold storage facility in Dallas, Texas, where it's helping efficiently cool four large cold-storage units in the 364,422-square-foot facility to temperatures between -20°F and 55°F. These units store temperaturesensitive products such as meat, dairy, and pharmaceuticals, demonstrating Crescendō's effectiveness in real-world conditions.

Crescendō substantially reduces the energy use of HVAC systems, contributing to a more sustainable future. This technology also enhances Bechtel's customer offerings and expertise in complex, energy-intensive markets such as data centers and advanced manufacturing facilities like semiconductor fabrication plants and battery production facilities.



Above Bechtel-developed Crescendō Technology

Left Solid-Liquid Separation Technology

Right Cutlass Solar 2 Project, Texas, U.S.

# Automated Solar Installation Technology

In 2024, Bechtel received a \$5 million grant from the Australian Renewable Energy Agency to pilot Terafab, the world's first automated digital field factory for solar power plant construction. Developed by Terabase Energy, this breakthrough technology is designed to significantly speed up and improve the safety of delivering mega-scale solar projects. This will be the first time this technology is used in Australia, helping to meet the country's 82% renewable energy goal by 2030.

Terafab uses robots to automate the labor-intensive process of handling and installing large solar panels, which can weigh up to 90 pounds each. The system efficiently lifts panels onto a conveyor belt, transports them, and positions them for final installation. The innovative use of robotics ensures faster, safer, and more precise installation, reducing the risk of injury on-site.

### **Cutting-Edge Digital Execution**

In 2024, Bechtel delivered the Cutlass Solar 2 project for our customer Sabanci Climate Technologies ahead of schedule by using a 100% digital delivery model — demonstrating what's possible when data, automation, and expertise converge in the field.

Spanning 1,100 acres in Fort Bend, Texas, the 218-megawatt facility now powers 40,000 homes and businesses with clean energy. Bechtel's team used autonomous rovers to mark pile locations and drones to streamline project delivery and boost field productivity. By improving survey and pile-driving efficiency by as much as sixfold,

this tech-forward approach helped save hundreds of job hours while increasing safety and construction quality.

With nearly 500,000 bifacial solar panels installed, Cutlass Solar 2 will save about 600,000 metric tonnes of carbon dioxide each year, making it a model for fast, high-quality solar delivery.

# Solid-Liquid Separation Technology

In partnership with Extrakt Process Solutions LLC, Bechtel is commercializing TNS — a breakthrough solid-liquid separation technology that recovers valuable minerals like lithium, copper, and gold from mine tailings (the byproducts of mining operations), reducing waste and water use in mining. TNS offers a sustainable and efficient solution to long-standing challenges in mining, including waste management, dewatering, and product recovery.



TNS uses less water, works faster, and is more cost-efficient than traditional methods at reintroducing these materials into the value chain. It also requires fewer resources, relies on a readily available non-toxic chemical solution, and is highly adaptable, particularly in high-clay environments. This makes it ideal for a variety of applications across the energy and mining sectors.

In 2024, pilot-scale testing showed strong results in hydrocarbon extraction, spillage cleanup, dewatering, and precious metal recovery applications. TNS has made significant advancements in chemistry, energy efficiency, product recovery, and water management, earning more than 40 global patents.



