SPIECAPAG

CAPABILITY STATEMENT

together @ VINCI

ABOUT US

We build the energy & water infrastructure of tomorrow

SPIECAPAG

[Spee-cah-pag]

proper noun

Spiecapag Australia is a leading pipeline construction company headquartered in Brisbane, Queensland. As a subsidiary of VINCI Construction, we bring **over 100 years of global expertise** in the construction of **onshore and nearshore pipelines and associated facilities** to the Oceania market.

Servicing the **energy, resources and utilities sectors,** we have built a strong reputation for delivering safe, high-quality and cost-effective projects in some of the most challenging environments.

Our capabilities span the full project lifecycle, including **design, engineering, procurement, construction, project management, commissioning, operations and maintenance.**

Globally, Spiecapag has delivered **over 60,000 km of pipelines** and supporting infrastructure in more than **60 countries**, including compression, pumping and metering stations, hydrocarbon storage systems, and water supply networks.

A key component of our capability is **HDI Lucas, a leader in Horizontal Directional Drilling (HDD),** which expands our ability to deliver complex crossings **beneath natural or artificial obstacles**.

This trenchless technology minimises disruption to existing infrastructure and/or the environment, enabling the installation of pipelines and conduits where conventional open-trench methods are not suitable.

SPIECAPAG

One Expert, Five Core Capabilities

ONSHORE PIPELINES

- Experts in traditional open-trench pipeline.
- Specialists in long-distance pipelines.
- Installation, repair & replacement.
- 60,000+ km delivered across 5 continents.
- All diameters up to 60 inches (DN1500).
- Solid track record in remote, difficult-to-access, and sensitive areas.

HORIZONTAL DIRECTIONAL DRILLING

- Trenchless crossings, including:
  - Shore crossings (landfall/outfall),
  - Creeks, rivers & large water bodies crossings,
  - Roads & railways crossings,
  - Services crossings,
  - Urban or residential areas crossings.
- Drainage bores.

ABOVE GROUND FACILITIES

- End-to-End pipeline solutions including:
  - Launcher & Receiver stations,
  - Main Line Valve stations,
  - Pumping & Metering stations,
  - Pressure reduction assemblies,
  - Reservoirs and storage facilities.
- Tie-ins to processing plants and terminals.

CABLE INSTALLATION

- HV Power and communication cables installation across nearshore and onshore environments.
- Offshore wind farm cables landfall.
- Support to offshore cable pull-in.
- Onshore cable pull-in.
- Trenching, conduits construction, and civil works.

CONSTRUCTABILITY STUDIES & ECI*

- Optimisation of project delivery from concept through to execution, including:
  - Route selection,
  - Cost estimating,
  - Planning strategy,
  - Feasibility studies,
  - Independent "cold eyes" reviews.

** Early Contractor Involvement*

OUR MISSION

We deliver pipeline infrastructure that connects regions and drives development

Spiecapag is a trusted strategic partner to energy, mining and water asset owners, delivering critical pipeline infrastructure that connects regions and enables growth.

For over 40 years in Australasia, we have delivered more than 20 major projects across Australia, including some of the country's most ambitious pipeline infrastructure, as well as all major long-distance, high-pressure gas pipelines in Papua New Guinea.

Building on this strong legacy in oil and gas, we are now actively supporting the energy transition, delivering infrastructure for both traditional and emerging markets.

Our expertise covers the transportation of diverse resources - including oil & gas, CO_2, hydrogen, cryogenic liquids, water, wastewater, sewage and slurry - alongside the installation of critical cable infrastructure, such as optical fibre and high-voltage (HV) power systems.

Combining global capability with deep regional knowledge, we deliver state-of-the-art networks in some of the world's most challenging environments - supporting communities, powering industries and enabling development.

Our Value-added, Five Key Advantages

GLOBAL BEST PRACTICE

Working on projects across the globe, Spiecapag can genuinely offer continuity to key staff. This builds a strong corporate memory, allowing us to retain best practice knowledge that de-risks complex projects.

COOPERATIVE LEADERSHIP

Spiecapag has the experience to quickly integrate with, and work alongside other businesses, be they joint-venture partners, or other contractors. This allows resources to be quickly focused on delivering successful outcomes.

SPECIALISED FLEET & EQUIPMENT

Spiecapag owns a full suite of special machinery and equipment required to build all types of pipeline, which makes it possible to effectively and rapidly mobilise operations, even in the most remote areas.

FINANCIAL STABILITY

Backed by the VINCI Group - reporting in 2025 an annual revenue of $130 Bn and $12 Bn in free cash flow, and holding a credit rating of A- by Standard and Poor's, and A3 by Moody's, Spiecapag offers financial strength and stability.

INNOVATION

Spiecapag has completed some of the most challenging pipeline construction projects in the world, and these have been achieved by continually pushing the boundaries of construction through innovative design and construction techniques.

OUR COMMITMENTS

We are committed to the highest Quality, Safety, Sustainability & Ethics standards

Spiecapag Australia is committed to delivering projects with the highest standards of quality, safety, and environmental responsibility. Our dedication to excellence is reflected in the internationally recognised certifications and accreditations we have achieved, ensuring best practices across all aspects of our operations.

To ensure our customers consistently receive high quality products and services, in 2022 Spiecapag Australia implemented and continues to maintain a **Quality Management System certified to ISO 9001:2015**.

Spiecapag is dedicated to the highest standards of Health & Safety, underscored by its comprehensive Health & Safety policy. The company is also deeply committed to environmental stewardship, as reflected in its robust Environmental Policy. In recognition of its unwavering commitment to these areas, Spiecapag Australia has been certified to **ISO 45001:2018 Occupational Health & Safety Management and ISO 14001:2015 Environmental Management Systems**, demonstrating its adherence to internationally recognised best practices in occupational health, safety, and environmental management.

Spiecapag Australia has also successfully obtained accreditation from the **Australian Government's Office of the Federal Safety Commissioner (OFSC).** This prestigious certification recognises Spiecapag's unwavering commitment to maintaining the highest standards of workplace Health and Safety. OFSC accreditation is a rigorous process that demonstrates an organisation's ability to implement, monitor, and continuously improve a best-practice Work Health and Safety Management System (WHSMS) across its projects. This achievement further strengthens Spiecapag's position as a trusted partner in delivering complex projects safely, efficiently, and sustainably.

BSCIC Certified System Quality ISO 9001 | Certified System Health and Safety ISO 45001 | Certified System Environmental ISO 14001

FSC APPROVED • GET ACCREDITED • GET BUILDING

Our Commitments, Five Pillars of Excellence

QUALITY

At Spiecapag, quality is not just a standard, it's a mindset embedded in everything we do. We consistently deliver projects to or beyond clients' expectations and believe all defects, and non-conformities are preventable. That's why our ultimate goal is zero defects and zero non-compliance across all our operations.

HEALTH & SAFETY

Safety is a non-negotiable and a shared responsibility at Spiecapag. We foster a proactive safety culture where everyone is empowered to act and speak up. Through rigorous training, risk management, and adherence to ISO 45001 and OFSC standards, we aim for zero harm – ensuring that no task is ever pursued at the expense of safety.

COMMUNITY ENGAGEMENT & RECONCILIATION

Meaningful engagement with communities is essential to delivering projects that leave a lasting, positive legacy. We are committed to building respectful relationships, supporting local development, and contributing to reconciliation with Aboriginal & Torres Strait Islander people.

ENVIRONMENT & SUSTAINABILITY

We are committed to minimising our environmental footprint and preserving natural ecosystems and biodiversity. Through robust planning and responsible practices, we aim to reduce our greenhouse gas emissions, and optimise resources through circular economy.

OPERATING ETHICALLY

Ethical operations are the cornerstone of our business. Our governance framework promotes transparency, accountability, and integrity across all activities. Guided by robust principles, policies and procedures, we're committed to responsible management and ethical conduct.

OUR PROJECTS

Over 40 years of operations across Australasia

Pelican Point Lateral Relocation Project

Location: Lefevre Peninsula, Osborne, SA, Australia
Type of Infrastructure: Gas
Client: Epic Energy
Completion date: Late 2027 / early 2028

3.9 km
DN450 gas pipeline

660 m
HDD river crossing

ONGOING

Under an Engineering, Procurement and Construction (EPC) contract, Spiecapag will deliver a 3.9 km DN450 buried gas pipeline to replace the existing Pelican Point Lateral, supporting the development of the Osborne Naval Shipyard while maintaining continuity of supply within the Moomba to Adelaide Pipeline System.

The scope includes a ~660 m HDD beneath the Port Adelaide River, installation of associated facilities (offtake, pigging and cathodic protection systems), and the safe decommissioning of the existing Pelican Point Lateral.

Constructed to AS/NZS 2885 standards, the project combines trenchless and conventional techniques and draws on both local and interstate resources, with completion scheduled for late 2027 or early 2028.

Image courtesy of Renewal SA

Marinus Link - HDD Shore Crossing Project

Location: Waratah Bay (VIC) & Burnie (TAS), Australia
Type of Infrastructure: Renewable Energy Infrastructure
Client: Prysmian
Completion date: 2027

10
HDD shore crossings

ONGOING

Selected by global cabling solutions provider Prysmian, Spiecapag will deliver the landfall HDD scope of the Marinus Link Project.

Marinus Link will strengthen electricity and telecommunications connections between Tasmania and Victoria via 345 km of HVDC and fibre optic cables, enabling the two-way flow of renewable energy - exporting Tasmanian hydropower and importing excess solar and wind energy from Victoria to meet peak demand.

As part of this critical infrastructure project, Spiecapag - through its HDI Lucas division - will deliver 10 shore crossings (five in Victoria near Waratah Bay and five in Tasmania near Heybridge).

This project will enhance national energy security and support Australia's transition to renewables, with the first 750 MW expected to significantly contribute to emissions reduction targets.

Snowy 2.0 Longitudinal Drainage Bores Project

Location: Kiandra, NSW, Australia
Type of Infrastructure: Renewable Energy Infrastructure
Client: Future Generation Joint Venture (FGJV)
Completion date: 2026

1,800 m x2
HDD drainage holes

ONGOING

Spiecapag Australia has been contracted by Future Generation Joint Venture (FGJV) to deliver the design and drilling of 2 drainage holes, each approximately 1,800 m in length, as part of the Snowy 2.0 project, a large-scale pumped hydro energy storage project in New South Wales. The work will be delivered by HDI Lucas, Spiecapag's HDD team.

"Our HDD expertise will help overcome the complex geological challenges of the Snowy Mountains region and support the delivery of Australia's largest renewable energy project" says John Walsh, Managing Director at Spiecapag. "Spiecapag is proud to contribute to the Snowy 2.0 project, which will play a vital role in Australia's clean energy transition."

Kurri Kurri Lateral & Storage Pipelines Project

Location: Kurri Kurri, NSW, Australia
Type of Infrastructure: Gas Infrastructure
Client: APA Group
Completion date: 2025

21 km
DN350 medium-pressure gas pipeline

24 km
DN1050 high-pressure gas pipeline

The Kurri Kurri Lateral & Storage Pipelines Project, delivered for the APA Group, is one of our most technically ambitious and strategically significant infrastructure achievements in Australia.

Spanning over 45 km of high and medium pressure gas pipelines, this was a complex suburban project including 7 HDDs, 8 thrust bores, 9 creek crossings and multiple associated facilities – all executed to the highest standards.

A standout feature of the project was the Kurri Kurri "Bottle" Gas Storage Pipeline: 24 km of DN1050, high-pressure buried pipeline laid in a unique recoiled loop configuration on an L-shaped platform, a first of its kind in Australia. With a significant amount of storage capacity, this innovative infrastructure acts as both a buffer and strategic reserve, ensuring reliable energy supply. This important development will deliver fast-start gas to support firming capacity in the National Electricity Market. It will play a critical role in enabling the transition to renewables by providing on-demand energy during periods of low solar and wind generation.

From managing two parallel projects and importing specialised plant from France, to navigating tight access corridors and implementing automatic welding technology, the project team demonstrated exceptional collaboration, adaptability, and engineering excellence.

JANSZ-IO Compression Project - HDD Landfalls

Location: Barrow Island, WA, Australia

Type of Infrastructure: LNG Infrastructure

Client: Chevron

Completion date: 2025

2

HDD shore crossings

500 m x2

DN630 HDPE pipework

The JANSZ-IO Project was a life extension activity, providing compression to the JANSZ-IO gas field to maximise recovery from the reservoir and maintain plateau supply to the Gorgon LNG plant. The JANSZ-IO field is located approximately 130 km north-west of Barrow Island in Western Australia in water depths of approximately 1350 m.

Spiecapag was contracted to install, by way of Horizontal Directional Drilling, two 540 m shore approaches consisting of DN630 HDPE to house umbilical cables, including two onshore trenches to facilitate umbilical pull-in and cut-over to existing infrastructure.

The project scope also includes civil works on the North-West of Barrow Island to construct the HDD pad, lay-down area, seawall, anchorage and seawater supply for drilling; onshore trenching and excavation, installation of pre-cast concrete and assisting with umbilical pull-in; as well as rehabilitation works/reinstatement.

Lihir Ground Stabilisation Project (MOSA JV)

Location: Lihir Island, Papua New Guinea
Type of Infrastructure: Retaining Wall - Mining Infrastructure
Client: Newmont Corporation
Completion date: 2025

1,315
ground anchors

4,425 m
waler beam

Delivered for Newmont Corporation, the Lihir Ground Stabilisation Project was a first-of-a-kind, and highly technical project undertaken as MOSA JV, in partnership with Spiecapag's sister company, Menard Oceania. It consisted in securing a benched retaining wall with cabled strength anchors in a geothermally active and tropical environment to enable mining operations to continue in the area.

Three benches were stabilised over the course of 46 months, with an impressive 1,315 ground anchors and 4,425 m of waler beam. Even more remarkable: the project had no time lost to injuries with approximately 2.3 million hours worked, a testament to the team's unwavering commitment to safety & excellence!

Western Outer Ring Main Project

Location: Melbourne, VIC, Australia
Type of Infrastructure: Gas Infrastructure
Client: APA Group
Completion date: 2024

51 km
DN500 high-pressure steel pipeline

7 HDD crossings

The Western Outer Ring Main (WORM) project delivered a high-pressure, buried gas transmission pipeline for APA Group, connecting pre-existing pipelines at Plumpton (Melbourne's west) and Wollert (north), and included an upgrade to the Wollert compressor station.

As main contractor, Spiecapag constructed the 51 km DN500 high-pressure steel pipeline with external epoxy coating - approximately 8 km within an existing easement (Wollert to Wodonga Pipeline) and the rest in greenfield easement.

Following extensive stakeholder consultation, the final alignment was selected to minimise impacts. While the route was generally flat, several steep gullies at creek crossings required careful management. The project included 3 km of trenchless crossings, comprising seven HDDs (six major waterway crossings) and twelve bores.

This project mobilised 300 personnel (75% local) and sourced 80% of equipment from the Melbourne area.

Kewdale White Oil Line Project

Location: Perth, WA, Australia
Type of Infrastructure: Oil Infrastructure
Client: NEWest Alliance
Completion date: 2023

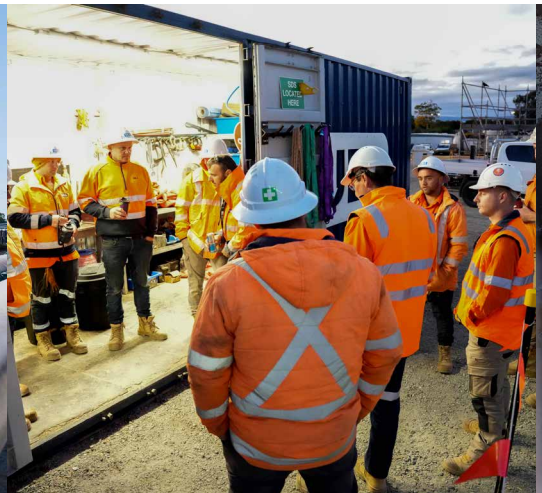
13 km
DN300 oil pipeline

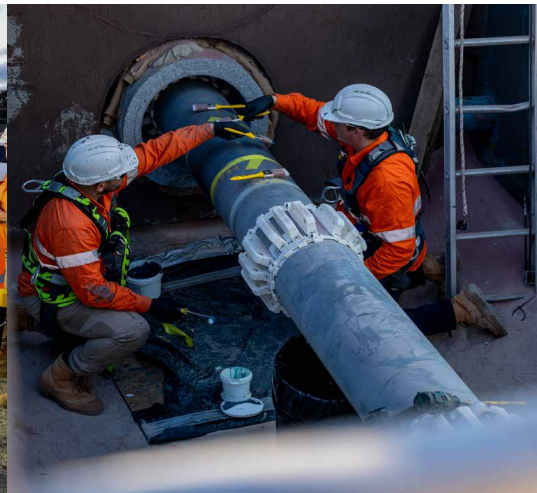
8
HDD crossings over 1 km

The Kewdale White Oil Line (KWOL) project entailed the relocation of a 13 km pipeline from BP's Kwinana refinery to the Kewdale Freight Terminal of Perth Airport, a requirement arising from the Thornlie Cockburn Link railway project.

Spiecapag was contracted for detailed design and construction of the new DN300 oil pipeline to be installed through Perth's southern suburbs. A congested construction corridor (<5 m wide) as well as proximity to local residences led to a concept design with over 90% of the pipeline to be installed using HDD bores.

Over 12 km of the pipeline was constructed using the HDD method across eleven crossings, eight of which exceeded 1 km. Each crossing was complex in nature, affected by adjacent railway activities, magnetic interference, limited work area and challenging geology. This was one of the largest HDD projects completed in a single pipeline in Australia.





Simberi Deep Sea Tailings Pipeline Project

Location: Simberi Island, New Ireland, Papua New Guinea
Type of Infrastructure: Mining Infrastructure
Client: Saint Barbara Gold
Completion date: 2022

580 m
DN1000 HDPE

Saint Barbara Gold contracted Spiecapag for the renewal of their 580 m DN1000 HDPE Deep Sea Tailings Pipeline and their seawater intake pipeline. The pipeline had been in service since 2007 and ran from the process facility in Pigiput Bay south-east out to the seabed. Initially our scope involved welding the new pipeline, stringing and fitting ballast to allow the mine to restart operations, however due to a new bathymetric survey, the alignment was radically redesigned.

The new alignment increased the complexity of the scope, and we provided custom designed and fabricated new restraining and support mounts. We worked with Saint Barbara to develop a new solution and were able to continue the replacement operations without significant delay.

The new pipeline and route included several turns, and many more ballast blocks required additional towing capacity. Spiecapag coordinated the increase in scope and managed the towing and final sinking utilising six vessels.

TK050 & TK2050 - Tailings Line Projects

Location: Lihir Island, New Ireland, Papua New Guinea
Type of Infrastructure: Mining Infrastructure
Client: Newcrest
Completion date: 2021 & 2023

200+ m
tailings lines

33 to 37°
tailings outfalls

Spiecapag successfully delivered two deep-sea tailings pipeline rehabilitation projects at a gold mine on Lihir Island, located 643 km off mainland Papua New Guinea, with a densely developed site.

TK050 (2020-2021) involved recovering and reinstalling a DN1200 HDPE liner pipeline (over 200 m long), used for tailings discharge to depths exceeding 100 m. The pipeline was connected to a submerged tank, gravity-feeding tailings to the ocean at a 37-degree angle.

TK2050 (2023) covered the removal and replacement of a 250 m DN1200 HDPE tailings liner. The works included removing the existing liner, installing a hauling frame, welding and hydrotesting the new pipe, and securing it into a 33-degree offshore deep-sea tailings outfall.

Channel Island Bridge Pipeline Replacement Project

Location: Darwin, NT, Australia
Type of Infrastructure: Gas Infrastructure
Client: APA Group
Completion date: 2021

1.4 km
DN300 pipeline via HDD

The Channel Island Bridge Pipeline Project required the installation of a 1.4 km DN300 pipeline via HDD between Channel Island, where the Channel Island Power Station is located, and the Darwin mainline.

The HDD crossing under the waterway was completed through varying geology up to 250 MPa rock strength. The profile was very complex with a compound curve arrangement completed to minimum pipe bending radius during the last 400 m of the crossing.

Works included modifications to existing station piping at Darwin City Gate and the Channel Island Meter Station facilities to install pig launching and receiver facilities along with gas filtration and an upgrade to monitoring instrumentation.

Northern Interceptor Pipeline Project

Location: Auckland, North Island, New Zealand
Type of Infrastructure: Wastewater Infrastructure
Client: Fletcher (Watercare)
Completion date: 2020

5,000 m total drilling

The Northern Interceptor Pipeline Project delivered a new wastewater pipe to redirect flows from north-west Auckland (New Zealand) to the Rosedale Wastewater Treatment Plant in Albany.

The design incorporated dual DN500 HDPE PN16 sewage rising mains and a DN200 HDPE conduit for future fibre optic cables to be installed under the Upper Waitematā Harbour and Te Wharau Creek.

Total drilling exceeded 5,000 m, including three parallel harbour crossings each over 1,100 m, and three Te Wharau Creek crossings each exceeding 560 m.

The works were executed in challenging rock and clay conditions, requiring detailed planning to ensure constructability and minimise risk. Bottom

hole assemblies with variable jet configurations were specifically manufactured to navigate the East Coast Bays Waitematā rock and sticky clay.

Extensive planning and stakeholder negotiation were also required to secure suitable stringing areas, as the urban environment significantly constrained safe and viable options.

Mardi to Warnervale Pipeline Project

Location: Mardi/Warnervale, NSW, Australia
Type of Infrastructure: Water Infrastructure
Client: Central Coast Council
Completion date: 2021

8.9 km
DN1000 water pipeline

750 m x2
HDD crossings

The $39 million Mardi to Warnervale Project comprised the construction of an 8.9 km DN1000 water pipeline from the Mardi Water Treatment Plant to Sparks Road in Warnervale; crossing road reserves, council land, private land and sensitive environmental areas demanding the use of trenchless technologies.

The Mardi to Warnervale Pipeline was made up of a multitude of intricate engineering projects split into twenty-three different sections. Key to this success was drawing from the joint venture's strengths such as the pipeline expertise and experience of Spiecapag, trenching and HDD activities of their subsidiary HDI Lucas, along with Seymour Whyte's experience in subcontractor management, roadwork, brownfield roadworks, traffic control covering the thrust bore, civil and structural activities.

The project was key to securing the future water needs of the Central Coast community. It will service projected expansion in the major northern growth corridor including Warnervale Town Centre and surrounding greenfield subdivision sites. It will also enhance bulk water transfers between the Central Coast and the Hunter Region, enabling better planning for future water resourcing and helping both regions better manage potential future drought conditions.

The project was delivered one week ahead of contracted completion schedule.

Atlas Lateral Pipeline Project

Location: Surat Basin, QLD, Australia
Type of Infrastructure: Gas Infrastructure
Client: Jemena
Completion date: 2019

60 km
DN200 steel gas pipeline

2.5 km
day average

60
crossings

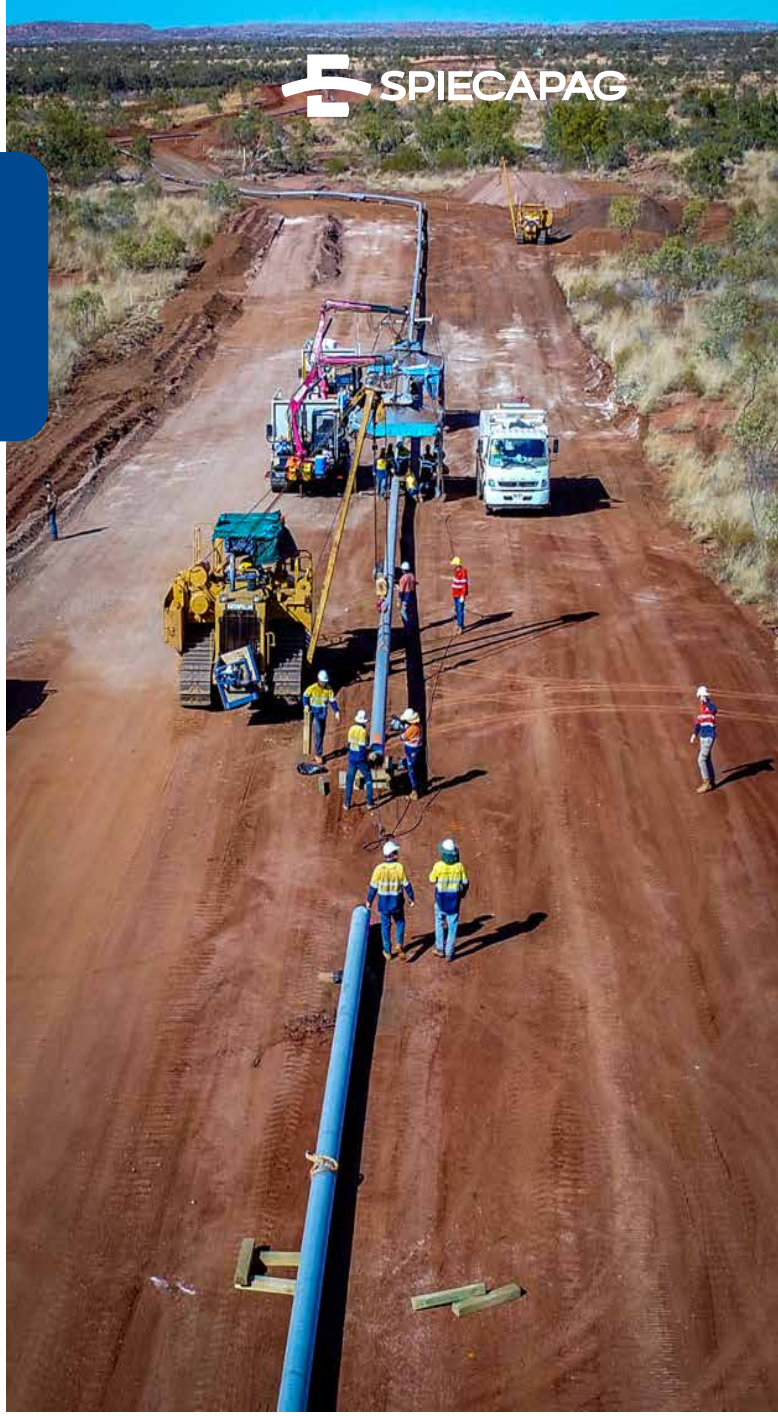
In the wake of the successful Northern Gas Pipeline Project, Spiecapag was invited by Jemena to participate in the early-stage development of the Atlas Project. This included providing constructability input on the design to enable the client to optimise the pipeline route and construction timeline.

In just five months Spiecapag delivered 60 km of DN200 high-pressure steel gas pipeline, connecting the new Atlas compression station to the existing Jemena Darling Downs Pipeline. Our mainline construction crews were able to average 2.5 km/day, while maintaining the highest standards of safety and quality. Construction of the pipeline required watercourse crossings, live service crossings and road crossings using a variety of techniques such as HDD, Auger Bore and traditional open cut trenching.

As principal contractor, Spiecapag was responsible for all construction aspects of the project – including survey, clear & grade, pipe handling, trenching, welding, lowering in, testing and rehabilitation. All 60 special crossings (including 38 watercourse, 16 live gas pipelines and 4 roads) were completed safely and efficiently by our dedicated crews.

Northern Gas Pipeline Project

Location: QLD, Australia
Type of Infrastructure: Gas Infrastructure
Client: Jemena
Completion date: 2018



143 km
DN300 steel gas pipeline

24%
First Nations team members

Spiecapag was contracted by Jemena to deliver 143 km of DN300 steel gas pipeline and associated crossings, civil and mechanical works for the Queensland section of the NGP Project. The scope of work included a start of line receipt/compressor station, three Main Line Valve (MLV) facilities along the pipeline, an end of line delivery station, and five cathodic protection stations.

Due to land access restrictions at the Mount Isa (Eastern) end of the pipeline, Spiecapag was required to perform the works from west to east. This involved a full camp and laydown area to be constructed beforehand. The camp mobilisation and construction schedule was critical and Spiecapag pulled out all the stops to ensure this was performed in an expedient manner.

The project was originally planned to be built around the wet season, with 93 km scheduled to be completed before the wet season, and the remainder as part of a remobilisation in March. Due to early access and high productivity rates, Spiecapag safely completed all mainline construction activities prior to the Christmas period, avoiding the need for the second mobilisation in March.

Working in a remote part of Queensland, Spiecapag engaged extensively with local businesses, including indigenous communities, where job-specific training was delivered, leading to 24% of our workforce coming from Indigenous communities.

Victoria Northern Interconnect Expansion Project

Location: NSW/VIC, Australia
Type of Infrastructure: Gas Infrastructure
Client: APA Group
Completion date: 2017

165 km
DN400 & DN450 domestic gas looping pipelines

7 loops
spreading over 500 km

38
HDD road crossings

Spiecapag was awarded the contract for the construction of 165 km of domestic gas looping pipelines comprising 95 km of DN400 pipe in Victoria and 70 km of DN450 pipe in NSW.

Crossing hundreds of rural and semi-rural properties, the project included seven loops spread over 500 km, two of which were in NSW and five in Victoria. The entire pipeline was constructed within the easement of an existing live high-pressure pipeline. Detailed engineering analysis was undertaken, and strict processes put in place to guarantee the integrity of the existing line throughout the project.

As the loops were spread over 500 km, three offices and logistics yards were established in Young (NSW), Wangaratta (VIC), and in Cootamundra (NSW).

The full scope of the works included six Main Line Valves, scraper stations, pig launchers, receivers associated pipe supports, civils works and E&I works in the facilities compounds, eleven tie-ins, four railway crossings, and thirty-eight HDD road crossings.

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Eastern Goldfields Pipeline Project

Location: Murrin Murrin, WA, Australia
Type of Infrastructure: Gas Infrastructure
Client: APA Group
Completion date: 2015

293 km
DN200 gas pipeline

5 km
average per day

0
LTIFR

The Eastern Goldfields Pipeline Project totalled 293 km of DN200 gas pipeline across the Great Victorian Desert from Murrin Murrin to two offtakes, one at KP83 and the second at KP293 in a region 12-hour drive north-east of Perth.

Spiecapag's scope of work included all construction elements of the gas pipeline from clear and grade to re-instatement. The works included operating multiple work fronts, each delivering 5 km of productivity per day on average to achieve project schedule. The project was delivered early at both off-take points, enabling early commissioning and gas up of the pipeline, with no time lost due to injuries (LTIFR = 0).

Proactive environmental practices on the project resulted in the team being awarded industry environment awards for excellent fauna management.

PNG-LNG Project

Location: Hides region, Southern Highlands, Papua New Guinea
Type of Infrastructure: Gas Infrastructure
Client: ExxonMobil
Completion date: 2014

450+ km
of onshore pipelines

28 M
man-hours

5 months
ahead of schedule

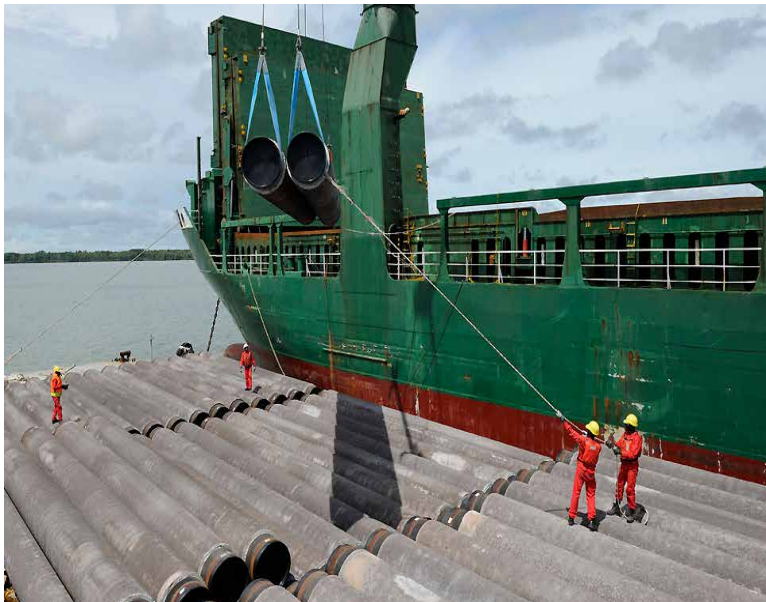
The PNG LNG Project is one of the most significant energy infrastructure developments ever undertaken in Papua New Guinea. Designed to unlock major gas and liquid hydrocarbon resources in the Hides region of the Southern Highlands, the project required the delivery of a complex onshore pipeline system through some of the most remote and challenging terrain in the world.

Over five years, Spiecapag was involved in the design, procurement and construction (EPC contract) of over 450 km of pipelines to transport natural gas from the Hides Gas Conditioning Plant (HGCP) to the Omati River where it connects to the offshore pipeline and the condensate product from HGCP to Kutubu CPF.

Project Scope

The scope of the work included a gas main line of 266 km of DN800, 27 km of DN860, 2 km of DN300 and 10 km of DN250 of gas pipeline, as well as 109 km of DN200 condensate pipeline.

In addition to the pipelines, Spiecapag delivered associated infrastructure including custody transfer metering systems at Kutubu and Gobe, helipads, fibre optic cable installation and high-voltage power cabling.



Extreme operating environment

Construction was undertaken in a true greenfield environment, with no pre-existing road networks or supporting infrastructure across much of the route. The alignment crossed extremely rugged and varied terrain, including steep mountain slopes, swamps and wetlands, unstable soils, active fault zones and dense tropical rainforest.

The project area experiences year-round rainfall, with up to nine metres of rain annually, high humidity and temperatures regularly reaching 30–40°C. These conditions required resilient planning, flexible execution strategies and continuous mitigation measures to manage landslides, flooding and access disruptions while maintaining project momentum.

Engineering and logistics challenges

Logistics represented one of the project's greatest challenges. Line pipe was transported from cargo ships onto barges and moved through the river network to the Kopi laydown yard, before being distributed along a 293 km pipeline route with no existing access. To enable construction, Spiecapag built roads and bridges, constructed floating bridges, and delivered more than 100 km of access tracks across volcanic soils and marshland.

Specialist construction methodologies were employed throughout the project, including:

- Horizontal Directional Drilling (HDD) to cross major rivers
- Cable crane systems and spider excavators for extremely steep slopes
- Rock trenching and marshland construction techniques

Community engagement and local content

Community engagement and local participation were fundamental to the project's success. At peak, Spiecapag employed 2,400 PNG nationals, including 1,900 customary landholders along the pipeline route. An environmental and social compliance framework was implemented in collaboration with stakeholders across multiple tribal areas.

Local content development was a core commitment. Training schools were established to build long-term skills within the workforce, and local and national businesses were actively engaged to supply services and support the project – creating a lasting legacy beyond construction.

The PNG LNG onshore pipeline stands as a benchmark project for large-scale pipeline delivery in remote and complex environments, having been completed five months ahead of schedule, with 28 million man-hours worked and an exceptional Total Recordable Injury Frequency Rate (TRIFR) of 0.25.

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Trunklines North Pipeline Project

Location: Surat Basin, QLD, Australia
Type of Infrastructure: Gas Infrastructure
Client: Shell QGC
Completion date: 2014

251 km
HV and fibre optic cables

51 km
gas pipelines

23 km
water trunkline

Spiecapag completed the construction of 51 km of gas pipelines (DN350, DN400 and DN500); 167 km of buried high-voltage cables; 23 km of water pipeline (DN600, MSCL); and 84 km of fibre optic cable as part of the upstream portion of works for the larger QCLNG project.

The project successfully delivered one hundred and fifty-five crossings of road, water courses, or existing pipelines, with forty-five special crossings carried out under strict permit-to-work conditions. Mid-line isolation valve assemblies, above ground pressure regulating stations (including duty and standby runs, isolation valves, drain valves, pressure indicators, pressure transmitters, and solar powered RTU's), high point vents and scour outlets were installed by dedicated crews or subcontractors directly managed by Spiecapag.

The water pipeline was completed with zero defects, and all seven hydrotest sections passed at the first test. Most importantly, the project was completed with zero incidents and a TRIFR of 0.00, thanks to the implementation of project-specific safety initiatives developed in house. The project was recognised with awards for its safety performance.

HDI LUCAS

HDI LUCAS

The Leader in Horizontal Directional Drilling (HDD) - the trenchless technology

Through its subsidiary HDI Lucas and sister company HDI France, Spiecapag delivers industry-leading Horizontal Directional Drilling (HDD) solutions across Australasia and beyond.

HDD is a trenchless construction method used to install pipelines, conduits and cables along a precisely controlled underground path - eliminating the need for open-cut trenches and significantly reducing surface disruption.

This technique is ideally suited to complex environments where access is constrained, existing services are dense, or where environmental protection is critical.

It is widely used to cross beneath roads, train tracks, waterways, existing utility services, and more generally urban and coastal areas.

By limiting surface disturbance to entry and exit points, HDD minimises environmental impact on flora, fauna and communities, while allowing traffic and stakeholder activities to continue uninterrupted.

Widely used for hydrocarbon and water pipelines, HDD is also a proven solution for power and communications infrastructure, as well as for complex shore crossings and landfalls.

This approach is used on major offshore gas projects (for example, the Gorgon or Jansz-Io developments in Western Australia) and on offshore wind farms, where electricity cables come ashore to connect renewable energy to the grid – all while keeping the coastline largely undisturbed.

APPLICATIONS FOR HORIZONTAL DIRECTIONAL DRILLING

ONSHORE OBSTACLES

Onshore obstacles are typically waterways (creeks, rivers, canals, estuaries, wetlands etc.), roads, motorways or railways, airport runways, dump sites, quarries under operation, golf courses, rock outcrops, existing utility services and more generally residential areas and environmentally sensitive areas.

LANDFALLS

HDD shore crossings or landfalls enable the installation of pipelines and conduits beneath beaches and sand dunes, minimising environmental impact while providing a safe and reliable connection between onshore and offshore infrastructure.

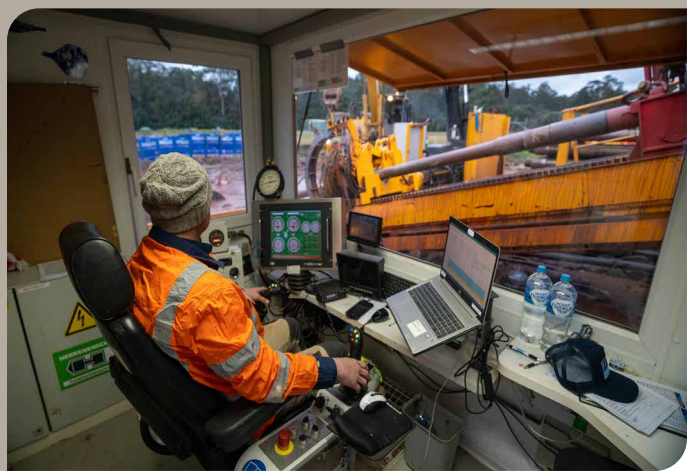
- No impact on environmentally sensitive coastlines.
- Safe crossing of surf zones.
- Drilling at a sufficient depth to ensure protection of the pipeline against erosion.

A FLEET OF SPECIALISED RIGS

HDI Lucas' drilling rigs offer a pulling capacity ranging between 35 and 400 tons. They allow for the installation of small size pipelines over short distances as well as large diameter pipelines (up to DN 1400) over very long distances.

Rigs are trailer or crawler mounted and consist of a central beam rack with a carriage moved by pinions powered by hydraulic motors. Hydraulic rotary motors located on the carriage provide the necessary rotary force.

Each drilling rig has its own control cabin, steering kit, high pressure pump and other ancillary equipment forming a complete and autonomous drilling spread. The HD 650 and HD 350 models are designed and manufactured in-house.



OIL & GAS

HDI Lucas has worked on many Oil & Gas landmark projects in Australia, the Pacific and Asia.

- **Kurri Kurri Lateral Project (NSW)**: Seven crossings of DN350, totalling 5.5 km.
- **Jansz-Io Compression Project (Barrow Is, WA)**: Four 550 m landfalls up to DN630 HDPE casings.
- **WORM (Melbourne, VIC)**: Seven crossings of DN500 totalling 4 km.
- **Channel Island (Darwin, NT)**: 1350 m, 200 MPa rock crossing.
- **Kewdale White Oil Line (Perth, WA)**: Eleven crossings of DN300, totalling 11.85 km.
- **The Gorgon LNG Project (Barrow Island, WA):** Nine 800 m landfalls up to DN800.
- **Tangguh LNG Project (West Papua, Indonesia)**: Three 2065 m landfalls up to DN600.
- **Hangzhou Bay Pipeline Crossing (Shanghai, China)**: Two 1750 m landfalls up to DN600.
- **Tamar River Pipeline (Tasmania)**: 2065 m of DN200 in single crossing length.
- **Tasmanian Gas Pipeline (Tasmania)**: Thirteen crossings with total length of 3350 m.
- **SeaGas Pipeline (SA & VIC)**: Eight crossings of dual DN350 & DN450 with total length of 3750 m.
- **Pohokura Gas Field Development (New Zealand)**: Two 1850 m landfalls up to DN600.
- **Casino Gas Field Development (VIC)**: Two 1650 m landfalls up to DN600.

ELECTRICITY AND TELECOMMUNICATIONS

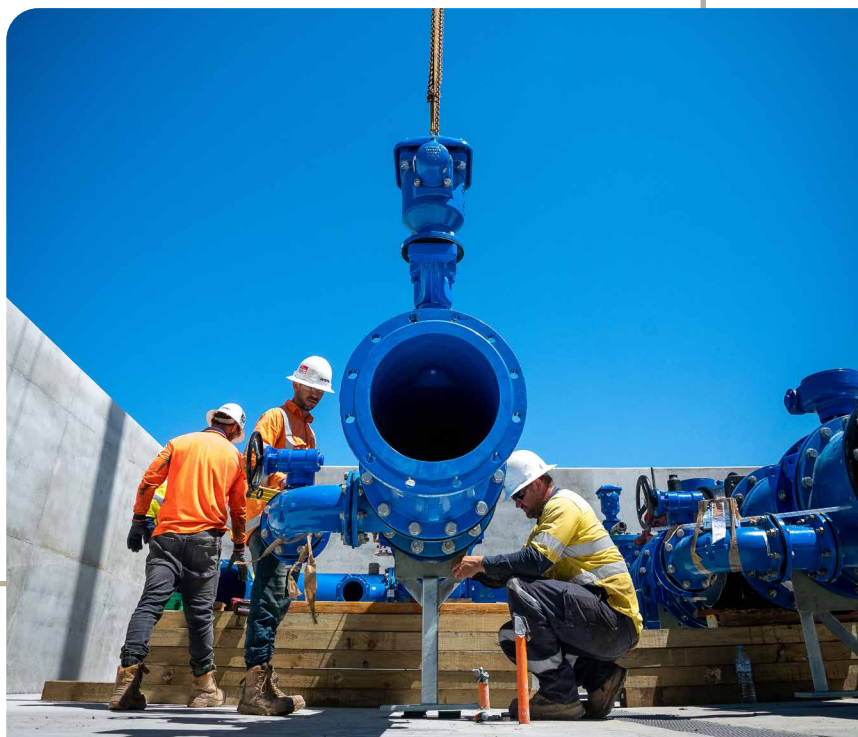
Our company has delivered multiple world firsts for telecommunications and power utilities. We have worked with our clients to bring fibre optic to the tops of rugged sandstone mountains and high-voltage electricity cables under waterways to protect them from inclement weather conditions. The use of HDD in these situations has increased service levels and reduced maintenance costs.

- **EDF Garonne River (France)**: World first HDD for high-voltage (225 kV) cable.
- **Telstra Mount White (NSW)**: Optical-fibre duct - 2:1 height ratio gained over 400 m.
- **China Light & Power (Ma Wan Island, Hong Kong)**: Largest cable installation by HDD in 2001, with six separate 1400 m crossings.
- **Telstra Mount Sugarloaf (NSW)**: Optical-fibre cable drill, setting world record for height gained using HDD.
- **TUAS (Singapore)**: Multiple 700 m+ drills for fibre-optic ducts.

WATER, SANITATION & MINERALS

HDI Lucas installs pipelines for the transportation of drinking water and waste water as well as water intake lines for desalination plants and discharge lines for sewage, following treatment.

- **TK2050 (Lihir Is, PNG)**: Removal and replacement of 300 m of DN1200 HDPE outfall pipeline.
- **Simberi (Simberi Is, PNG)**: Replacement of a ruptured DN800 HDPE pipeline with a new 600 m long DN1000 HDPE pipeline.
- **Mardi to Warnervale Pipeline (NSW)**: Two 700 m+ DN800 crossings.
- **Northern Interceptor (New Zealand)**: More than 5000 m of DN560 pipe over six crossings.
- **TK050 (Lihir Is, PNG)**: Recovery and reinstallation of 200 m of DN1200 HDPE liner pipe at a vertical depth of more than 100 m.
- **Western Corridor Recycled Water Pipeline (QLD)**: Four 1200 m DN600 crossings.
- **Tauranga Southern Wastewater Pipeline (New Zealand)**: 1600 m of DN900.
- **Chatswood Graded Sewer Pipeline (NSW)**: 1860 m of DN820.
- **Illawarra Wastewater Transfer Pipeline (NSW)**: 1962 m of DN900.
- **Cascades Upper Blue Mountains Sewer Pipeline (NSW)**: Two 2440 m crossings with pipe diameters up to DN450.
- **Merewether Wastewater Pipeline (Newcastle, NSW)**: 1350 m of DN900.



VINCI COMMITS TO THE ENVIRONMENT

The VINCI Group is mobilising all its business divisions with an ambitious environmental strategy. We identified actions likely to improve the Group's environmental performance in three areas: greenhouse gas emissions, resource preservation by developing the circular economy and conservation of natural environments. This strategy will mobilise all of VINCI's operational entities to strive for:

- 40% reduction in CO_2 emissions by 2030.
- Alignment with the 2050 carbon neutrality commitment made by France as part of the Paris Climate Agreement.
- Commitments to boost the circular economy and preserve natural environments.

"With the deployment of its new environmental ambitions, VINCI today commits to developing concrete solutions that help improve the living environment to serve inhabitants, while also reducing the impact of its own activities. It is our responsibility as a leading economic actor, and it is also a guarantee of the continued survival and acceptability of our business activities."

Isabelle Spiegel,
Environment Director for VINCI

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