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*Connecting people & projects*

# Infrastructure Pipeline Update

## The Digital Surge

**What's Driving the Digital Boom?**

**Where are the New Data Centres Being Built?**

**The Infrastructure Behind Data Centres**

**Challenges & Opportunities**

**The Infrastructure Pipeline**

**Other Major Pipeline Updates**

*NextDC M2 Melbourne Data Centre*

# What’s Driving the Digital Boom in Australia?

### Data Regulations

Australia requires certain data to be stored within national borders.

### “Gateway” to Asia

Extensive submarine cable network, geographic location, stable economy & strong trade relationships.

### AI & Cloud Computing

Increased use of Gen AI and household internet connectivity.

- Australia's data centre capacity is set to more than double (1,350 megawatts in 2024 to 3,100 megawatts by 2030).
- AI and automation are expected to contribute up to A$600 billion annually to Australia’s GDP by 2030.
- Generative AI (such as ChatGPT) requires five times the processing power and storage of traditional data centres.

*Equinix Data Centre Floor*

# Where are Data Centres Being Built?

## Key Investments

- Amazon has committed **$20B** to expand their infrastructure in Sydney and Melbourne by 2029.
- Goodman Group investing **$2.54B** for data centre expansion in Sydney and Melbourne.
- Macquarie Group recently committed to spend **$7.5B** on new AI-driven data centres.
- NEXTDC is developing a **850MW data centre** JV in Sydney & a new one in Maroochydore.
- Launceston council has approved a major **AUD $2.1B** AI data centre project.
- **$5B** 1GW data centre campus with 6 multi-storey buildings is in planning in Sydney.

Pipeline:

**30 projects at various planning stages**

Sector Value:

**Expected to increase to $46B by 2029**

Capacity:

**3rd largest planned data capacity globally**

*Equinix Data Centre in Melbourne, built by FDC*

# The Infrastructure Behind Data Centres

Machinery and equipment investment by IT firms rose to **$1.4B** in June 2025, partly due to purchases of routers, cooling towers and servers used in the building of data centres.

IT sector accounts for about **8% of all non-mining machinery and equipment investment** across the economy, up from about 2.5% before 2020.

Key Areas of Opportunity:

- development
- construction
- operation of data centres
- critical network infrastructure

Data centres are expected to consume **12% of all power** generated by the grid by 2040.

Generative AI requires **5x the processing power** and storage of traditional data centres.

General-purpose data centres can't accommodate new AI-based GPU servers, which use far more power and create much more heat.

*Amazon Data Centre Under Construction in Western Sydney*

# Challenges & Opportunities

## Power Supply

- Power shortages and grid constraints are a major challenge, driven by demand for AI and cloud computing.
- There is opportunity for data centres to lead investment in renewables and grid-scale batteries to ensure reliable, sustainable power.
- Collaborative planning with utilities, investment in grid upgrades, and innovation in energy supply will position operators to thrive as demand and sustainability expectations grow.

## Skills & Productivity

- There are critical shortages in electrical trades, network engineers, and cybersecurity professionals.
- Upskilling and targeted training, along with partnerships between industry, TAFEs, and universities, offer an opportunity to build a pipeline of talent.
- Closing the skills gap could unlock billions in economic uplift and support Australia's ambitions as a digital infrastructure hub.

## Material Costs & Supply Chain

- Material costs have surged by **30% over the past three years**, driven by supply chain disruptions, inflation, and high demand for steel, concrete, copper, and specialist equipment.
- Increased investment in local manufacturing could create efficiencies in cost and delivery.
- Diversifying supply chains, building resilient procurement strategies, and strengthening relationships with local manufacturers can help manage risk and maintain cost certainty.

## Land Availability

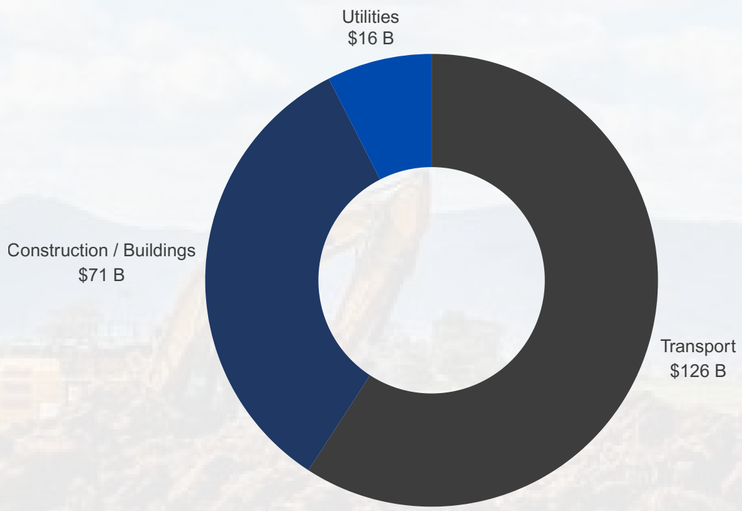
- Data centre operators face fierce competition for prime industrial land in Sydney, Melbourne and Brisbane.
- New regional data centre zones in outer metro and regional locations are emerging as opportunities, offering more land.
- Government and utility cooperation with industry on land and infrastructure planning can unlock future development potential across more regions.

*Equinix Data Centre, Melbourne - Solar Panels*

# The Infrastructure Pipeline

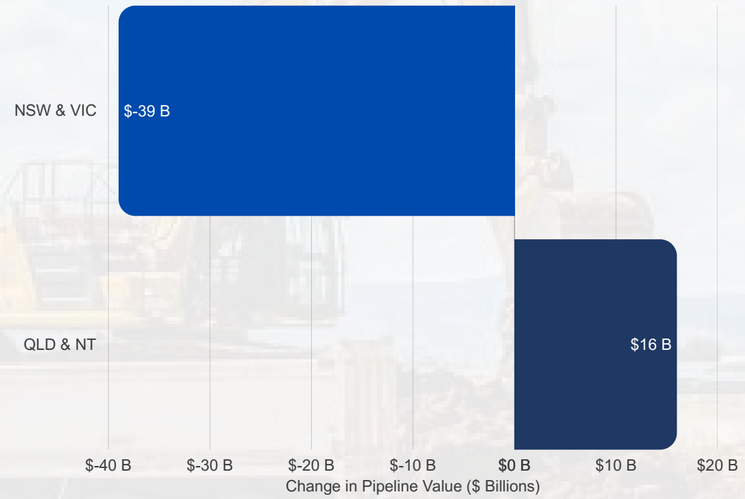
Australia's East Coast is the engine room of the nation's **$334 billion construction industry**, with a public infrastructure pipeline of **$213 billion**. A strategic recalibration is underway, shifting focus from transport towards critical energy, housing, and digital infrastructure priorities. Engineering construction alone is forecast to grow from **$134B in 2023-24 to $155B by 2028-29**.

## 5-Year Pipeline Composition ($213B)




Investment is now strategically flowing into utilities (driven by energy projects) and buildings (driven by the housing crisis), marking a significant change from the previous transport-dominated landscape.

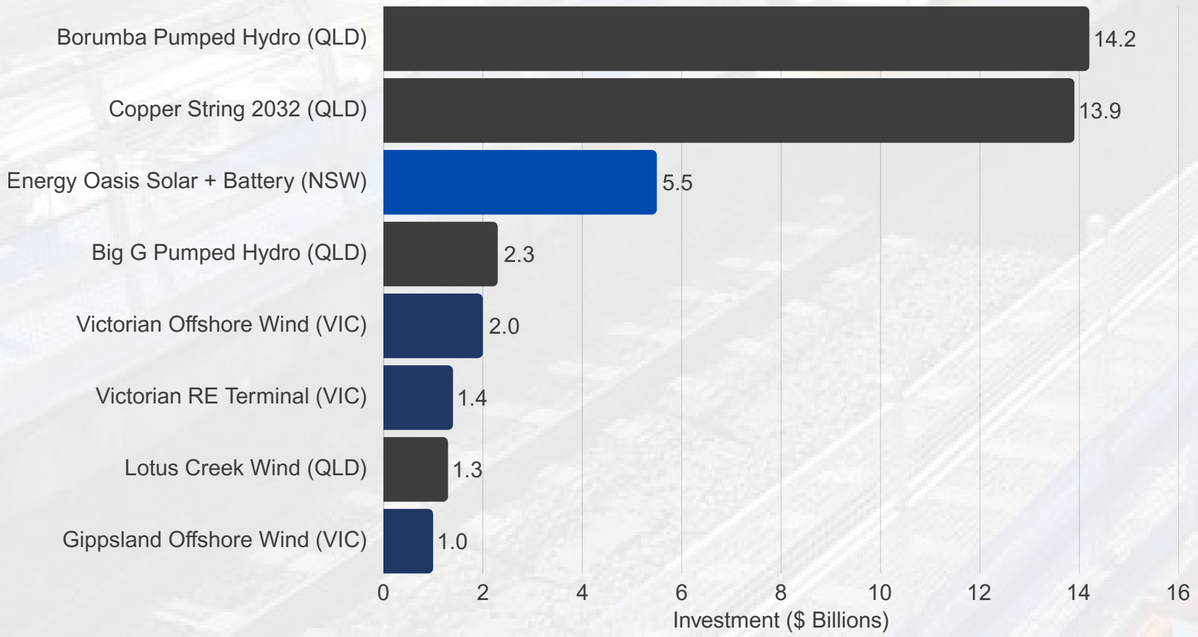
## Geographic Investment Shift



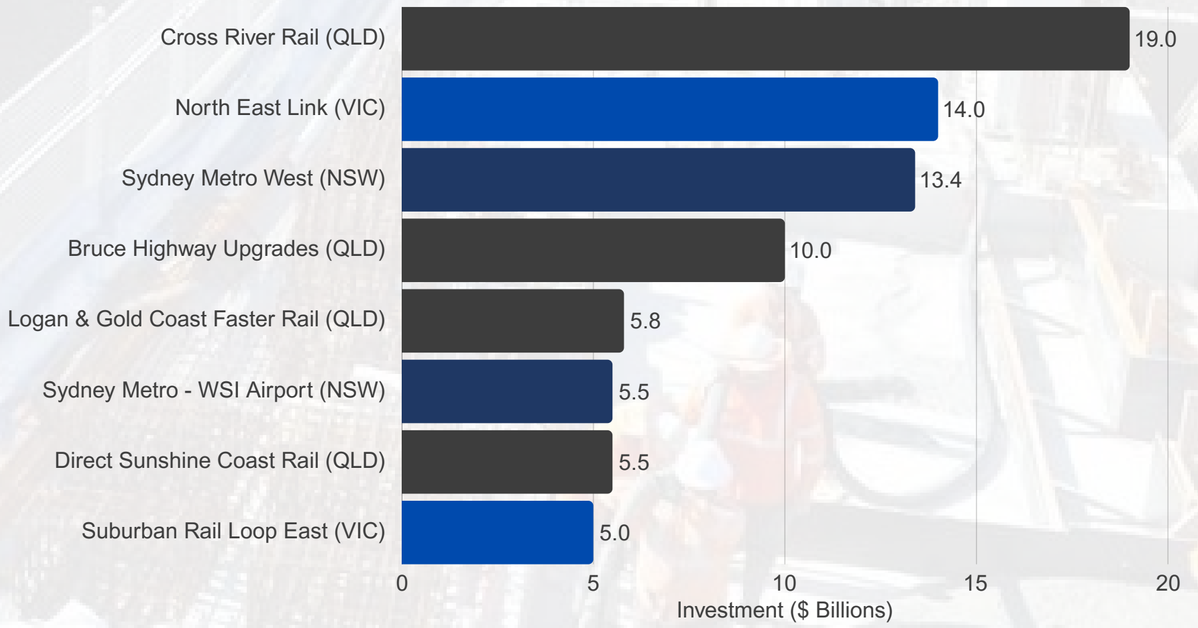

While NSW and Victoria remain major players, their pipelines have contracted. Growth is accelerating in Queensland and the Northern Territory, reflecting new economic drivers and state priorities.

# Other Major Pipeline Projects

## Energy




## Transport




*Cross River Rail*

# Other Major Pipeline Projects

## Housing Target vs. Forecast


Investment priorities range from Queensland's urban pipelines to Tasmania's focus on agricultural productivity, offering diverse opportunities in water treatment, dam engineering, and smart irrigation.

## Water Projects & Initiatives

| State | Project Focus | Investment Examples |
|---|---|---|
| **Queensland** | New Supply & Dam Resilience | $1.2B for Paradise Dam & other dam projects<br>$311M for Fitzroy to Gladstone Pipeline |
| **New South Wales** | Drought Resilience & Storage | Wyangala Dam Raising (650GL increase)<br>New Dungowan Dam (22.5GL capacity) |
| **Victoria** | Recycled Water & Modernisation | Western Port Recycled Water Scheme<br>Quality Water for Wannon (Reverse Osmosis) |
| **Tasmania** | Agricultural Irrigation | $217M for Northern Midlands Irrigation Scheme<br>$54M for Don Irrigation Scheme |

*Wyangala Dam*

# Other Major Pipeline Projects

## Key East Coast Defence Investments

**East Coast Submarine Base (AUKUS):** Planned new base (Brisbane, Newcastle, or Port Kembla) for nuclear-powered submarines. Estimated **AU$5-10 billion** development, creating a new economic hub with 3,000-5,000 ongoing jobs.

**Garden Island Defence Precinct (NSW): AU$3.1 billion** redevelopment in Sydney to future-proof wharves for current and future RAN ships.

**RAAF Base Williamtown (NSW): AU$164.9 million** for major airfield works (dual military/civilian use) and **AU$569 million** for Wedgetail fleet upgrades.

## Major Airport Expansions

**Western Sydney International Airport (NSW):** A cornerstone of the Western Sydney Aerotropolis, with **AU$5.3 billion** federal investment (Stage 1 completion 2026). Linked to the **$11 billion Sydney Metro - Western Sydney Airport Line** (completion 2026), creating an integrated economic hub. Broader federal investment of nearly **AU$18 billion** in Western Sydney transport infrastructure.

**Melbourne Airport Rail Link (VIC):** Federal government allocated **AU$7 billion** for this project, with early works anticipated H2 2025 and full completion early 2030s. Designed to replace SkyBus as primary public transport link.

**Hobart Airport Runway Upgrade (TAS):** Secured **AU$60 million** federal funding (total project cost **AU$130 million**). Enables larger Code E aircraft, direct flights to Asia, and enhances Tasmania's role as Australia's Antarctic gateway. Construction completion March 2025.

*Western Sydney Airport terminal*

# About 4020 Consult

4020 Consult is a Queensland owned and operated Infrastructure and Utilities specialist resourcing business focused on connecting talented professionals to exciting opportunities with employers of choice.

Our team are highly experienced, well regarded, connected and recognised for the positive influence we have on the industry sectors we work in.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