



Energy Western Australia

Beyond Capital & Concept: Breaching WA's Grid "Execution Wall"

Presentation Duration: 30 min · 11:35 – 12:05

Introduction 1 min · Presentation 25 min · Questions 4 min

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Breaching WA's Grid "Execution Wall" From Financial Close to Grid Operator Acceptance and Energisation

Disclaimer: The views expressed are those of the presenter and Genus based on practical infrastructure delivery experience and do not necessarily represent the views of developers, Western Power, governments, AEMO, regulators or other stakeholders.

EARLY WORKS: SETTING UP TO EXECUTE



What early execution actually looks like — before construction is the headline.

DESIGN, SURVEY & COMMUNITY ENGAGEMENT



SITE ESTABLISHMENT & EARLY WORKS



What this early activity compounds into:
SCHEDULE CERTAINTY → COST OPTIMISATION → RESOURCE CONFIRMATION → STAKEHOLDER SATISFACTION → POWER GENERATION & REVENUE

We Agree On The Destination — And WA Is Already Investing To Meet It

50GW+ of generation and storage may be required — compared with approximately 5.9GW of generation capacity on the SWIS in 2022 (SWIS Demand Assessment)

Future Demand Drivers Include

- Renewable Generation
- Storage
- Industrial Electrification
- Critical Minerals
- Future Fuel Opportunities
- Green Iron & Steel
- Data Centres & AI
- Regional Economic Growth

WA Investment Underway

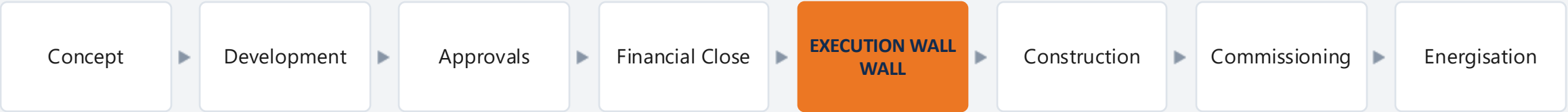
- Clean Energy Link North (CEL-N)
- Future Clean Energy Link Initiatives
- PoweringWA Initiatives
- Strategic Transmission Expansion
- Increased Renewable Hosting Capacity

The issue isn't identifying projects or raising capital — it's delivering them.

FINANCIAL CLOSE IS NOT THE FINISH LINE



It's Permission To Start Execution



The window that shrinks the wall

Six Bricks In The Wall

SHRINK THE WALL

The wall isn't fixed — early action on each brick below shrinks it.



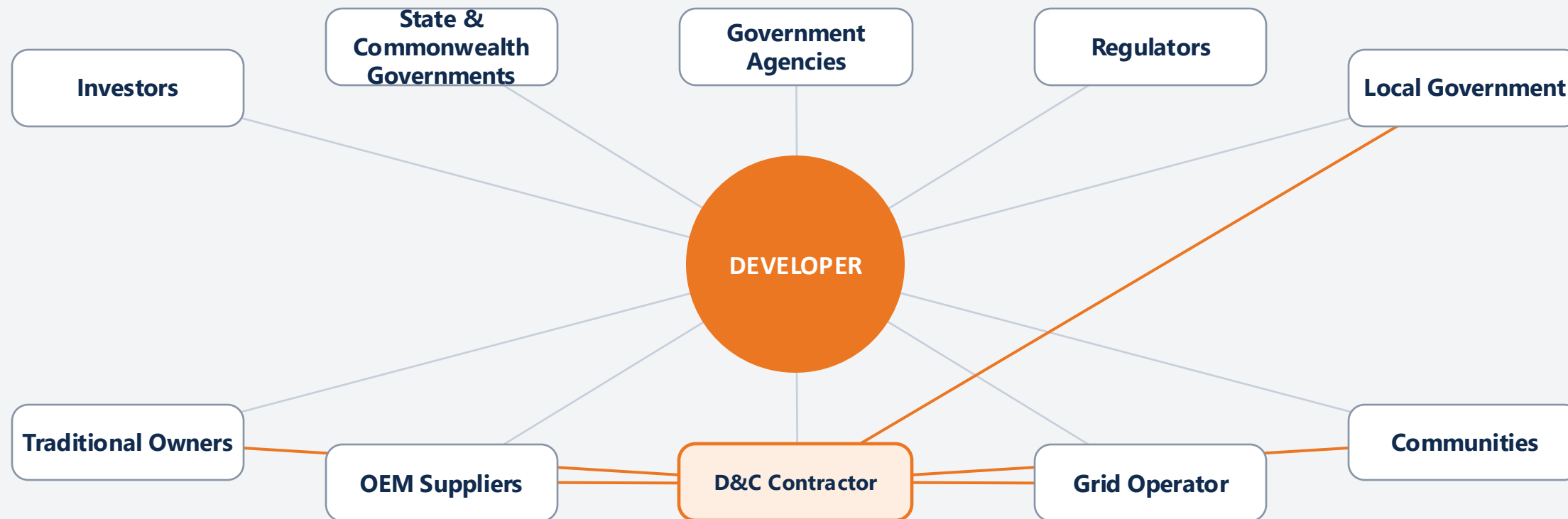
31 CIS-Backed Wind Projects. Only 4 Have Reached Financial Close.

Rystad Energy, Aug 2026 — cited causes: construction cost escalation (~30–50%) and a PPA price gap, with grid transmission capacity uncertainty a named contributing factor. [1]

ALIGNMENT IS THE DELIVERABLE



Beyond Price, Build, Leave



Grey — the developer's direct relationship. *Orange* — where the D&C contractor works the interface directly to deliver the developer's obligations.

Projects are delivered through **ALIGNMENT** — not through control

GRID OPERATOR INTEGRATION STARTS EARLIER



Bricks 1 & 2 — The Gateways You Need To Navigate, At Every Stage

Design Gate Reviews

Protection & SCADA Approval

Telecommunications Approval

Access & Asset Agreements

Grid Operator Acceptance

Operational Readiness

Design

Reviews, protection, SCADA & telecoms

Construction

Approved equipment & manufacturers

Commissioning

Hold points, witness points, testing

The challenge isn't developing a design. It's obtaining an approved one — at every stage.

WA Government: *a dedicated Priority Approvals team now coordinates inter-agency processes and parallel assessments for renewable energy and critical infrastructure projects.* ^[2]

EVERY PROJECT HAS TWO SCHEDULES

Brick 2 Continued — Finite Resources Across The Entire Ecosystem

Internal Schedule

- Design
- Procurement
- Construction

External Schedule

- Grid Operator Reviews & Outages
- Government Agencies
- Market Bodies
- Supply Chains & Manufacturers
- AEMO Activities



Readiness becomes a competitive advantage.

Even Western Power agrees: *priority network resourcing goes to projects "ready, willing and able to progress without delay."* ^[3]

WHY BRICKS 1 & 2 MATTER MOST

NO CONNECTION = NO REVENUE

Without the network connection, there is no revenue for:

Wind Farm

BESS

Solar Farm

Gas Generation

Connection: **~7% of Capital.** 100% of the Path to Revenue.

12.81GW of connection-ready projects chasing **759MW** of offers granted in FY24/25. ^[4]

DECISIONS MADE EARLIER THAN THEY APPEAR

Bricks 3 & 4 — Long Lead Equipment & Workforce Availability

Item	Typical Planning Horizon
Transformers	up to 24–48 Months
Major Switchgear	up to 18–36 Months
Protection Systems	up to 12–24 Months
Telecommunication Equipment	up to 12–24 Months

Additional Constraints: critical network assets frequently require approved manufacturers, vendors or production sources in addition to available capacity.

Who Builds 50GW?

- Engineers
- Electricians
- Lineworkers
- Construction Labourers
- Technicians
- Supervisors
- Commissioning Specialists

Capital can be raised. Skilled people take years.

WA Government: the WA electricity workforce could nearly triple — from just over 8,000 to almost 30,000 FTE by 2031. ^[5]

SOCIAL LICENCE IS INFRASTRUCTURE

Brick 5 — Community Trust & Compliance

Successful Projects Build

- Community Trust
- Traditional Owner Relationships
- Indigenous Economic Participation
- Local Procurement Pathways
- Local Employment Opportunities
- Visible Long-Term Presence

Compliance Requirements

- AIP — Australian Industry Participation
- CIS — Capacity Investment Scheme
- PoweringWA — WA Energy Transformation
- Community Benefits Expectations
- ICN Gateway Requirements
- Training & Career Development

Trust, relationships and community acceptance are project infrastructure.

APPROVAL ≠ READINESS

Brick 6 — Construction Capacity

Regulatory

- Heritage Clearances
- Environmental Permits
- Vegetation Clearing
- Access Agreements
- Water Licences
- Biosecurity

Physical & Seasonal

- Rainfall & Road Access
- Water Availability
- Dust Suppression
- Wet / Fire Season
- Heavy Haulage

Early Works Delivered

- Site Offices & Laydowns
- Access & Haul Tracks
- Borrow Pits for Site Fill
- EOI through ICN Gateway
- Early Delivery Partners

Start the early works now. Time the big mobilisation to readiness — not just approval.

ALIGNMENT WINS FINANCIAL CLOSE



Bringing The Six Bricks Together

Developer Objectives

- Financing
- PPAs
- CIS & AIP
- Revenue Date
- Cost Optimisation
- Workforce Capacity & Competency

Grid Operator

- Technical Standards
- Design Approvals
- AEMO Registration
- Outages
- Acceptance
- Operational Readiness

Delivery

- Procurement
- Construction
- Testing
- Commissioning
- Energisation

Successful projects align all three.

THE FINANCIAL CLOSE READINESS TEST



Before Financial Close, Ask: Do We Have...

- | | |
|---|--|
| ☐ Network Strategy | ☐ Grid Operator Engagement |
| ☐ Grid Operator Commitments to Energisation | ☐ Community Benefits Framework |
| ☐ Traditional Owner Engagement | ☐ Workforce Strategy |
| ☐ Long Lead Item Equipment | ☐ Procurement & AIP Strategy |
| ☐ Delivery Partner Capability | ☐ Construction Readiness |

In Western Australia, the future challenge may not be finding renewable resources. It may be securing access to the infrastructure, grid capacity and delivery capability required to connect those resources to market.

WA Does Not Have An Ambition Problem

WA HAS AN EXECUTION PROBLEM

BUT — projects that will succeed are those that solve:

Governance

Grid Capacity

Long Lead

Workforce

Community

Compliance

Connection

Construction Capacity

Every Megawatt Generated Is Worth Precisely \$Zero Until It Can Enter The Grid

And increasingly, the projects that enter the grid first will be those that address the execution risk earliest.

Thank you — I look forward to your questions and to continuing this discussion with Infrastructure WA, PoweringWA and Western Power on this afternoon's panel.

THANK YOU.

Data Behind The Fact Callouts On Slides 5, 7, 8, 9, 10 & 13

[1] 31 CIS-backed wind projects — only 4 have reached financial close. (Slide 5)

Rystad Energy (David Dixon), via ABC News, 25 Aug 2026.

[2] WA's Priority Approvals team coordinates inter-agency reviews. (Slide 7)

Infrastructure Australia, 2025 Infrastructure Market Capacity Report.

[3] Western Power's Critical Project Framework prioritises “ready” projects. (Slide 8)

Western Power, “How Renewable Generators Connect” factsheet.

[4] 12.81GW connection-ready vs. 759MW of offers granted in FY24/25. (Slide 9)

Western Power FY24/25 data, via PV Tech, Aug 2025.

[5] WA electricity workforce could nearly triple — 8,000 to almost 30,000 FTE by 2031. (Slide 10)

WA Government, “Race for 2030” Workforce Projections Report, Jul 2025.

[6] HV linesworker/substation shortage vs. ~10,000km of competing national build-out. (Slide 10 notes)

Federal Govt review (2021); ABC News, 21 Nov 2025; AEMO transmission cost data.

[7] 1,891 power projects cancelled globally in 2025 (93% clean energy); 2TW stranded in queues. (Slides 5, 13 & 15)

AVEVA, “Powering Forward With Data: Four Steps To Close The Project-To-Performance Gap In Power And Utilities,” 2026 (citing Cleanview and Deloitte).

[8] 11,000+ building, construction & electrical apprentices in training statewide, against the 2031 workforce need. (Slide 15 notes)

WA Government (Training Minister Simone McGurk), media statement, 13 Dec 2024.