Pipes & Wires

Thought leadership of critical energy & infrastructure matters
Issue 236 – February 2026

From the editor's desk…

Welcome to Pipes & Wires #236, and hopefully 2026 finds everyone fit and well. This issue starts with a look at industry reshuffling in Brazil and South Africa, and then looks at a regulatory settings change in NZ. We then examine some market reports from Australia, and then conclude with some regulatory decisions in NZ and Australia.

So … until next time, happy reading…

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Recent client projects

Recent client projects include…

Transaction advisory ($12b and counting)

- Forecasting AugEx, RepEx and OpEx, advising on likely revenue cap implications.
- Identifying strategic, commercial and regulatory red-flags.
- Translating demand forecasts into AugEx.
- Reviewing procurement models and processes.

Climate governance and resilience

- Identifying the governance, strategy and risk programs required to align with TCFD.
- Compiling a client resilience framework for an electric distribution company.

Asset strategy and asset management practices

- Assessing the strength of an EDB's organizational culture, work process and asset management practices.
- Compiling a road map to guide an EDB on its asset management improvement journey.
- Identifying a range of structural and service delivery models for an electric company.
- Identifying best customer engagement practices on

Decarbonisation and energy transition

- Estimating the costs of DERMS (distributed energy resource management system) penetration for distribution feeders for a large US electric company.
- Identifying leading practices in behind-the-meter activities (eg. batteries, solar, smart data, VPP's etc) for a large US electric company.
- Identifying best Australian practices in EV charging for a large US electric company.
- Identifying key features of demand management in the Australian NEM for a large US electric company.
- Identifying best practices in grid-scale and community-scale batteries for an Australian distributor.
- Identifying best practices in EV charging on behalf of an Australian distributor.

Global trend and pattern analysis

- Identifying the global and regional trends facing transmission grid operators for a US client.

Regulatory analysis

- Reviewing the AER's recent treatment of network

behalf of an Australian distributor.

- Providing an independent assessment of network condition and spend adequacy.
- Providing an independent review of asset condition and spend forecasts for a distribution company investor.
- transformation expenditure.
- Advising on the regulatory implications of an aging timber transmission pole fleet.
- Identifying the learnings from the RIIO – ED1 reset on behalf of an Australian distributor.

Cool multimedia stuff

Gas turbine railroad locomotives take 2

This fascinating 20 minute video clip examines the Baldwin Westinghouse gas turbine electric locomotive from the early 1950's, and highlights how narrow the efficient operating range of a gas turbine really is. Readers might also recall the similar development of the Alco-GE gas turbine locomotive in Pipes & Wires #224.

Industry reshuffling and capital allocation

Brazil – the electricity distribution concessions

Introduction

Pipes & Wires #233 examined the renewal of 19 of Brazil's 52 electricity distribution concessions, and noted a range of expert opinions on whether all 19 concessions would be renewed. This article examines the ANEEL's recent decisions, including deeper scrutiny of Enel-SP and of Light Serviços de Electricidade SA.

ANEEL's decisions

At the time of writing, the ANEEL…

- Has responded positively to 9 concession renewal requests.
- Is continuing its evaluation of a further 8 concession renewal requests.
- Is expected to scrutinize 2 concession renewal requests very deeply, and possibly recommending that the Ministry of Mines & Energy decline renewal.

The specific circumstances of Enel-SP

Enel-SP is the electricity distributor in the São Paulo metro area, supplying 7,500,000 customers in 24 cities covering a distribution area of 4,526 km^2. The city of São Paulo has urged the immediate suspension of the early extension process following several large black-outs and declining at-large service quality since 2018. Enel has replied that it is meeting all the criteria for early renewal, and is improving its operational plans.

The specific circumstances of Light Sesa

Light Sesa is the electricity distributor supplying about 4,500,000 customers in 31 cities across the State of Rio de Janeiro. Light Sesa is currently undergoing a judicial reorganization following the granting of bankruptcy protection in May 2023,

The judicial reorganization (essentially a capital restructuring) includes an injection of R$1b (about US$190m) along with R$2.2b of debt to convert to equity. This capital restructuring will restore Light Sesa's leverage metrics to the expected levels required by the renewed concession, and was ratified by the Courts in June 2024 following shareholder approval in May 2024.

Next steps

Pipes & Wires will comment further as news about Enel-SP and Light Sesa emerges.

South Africa – rethinking the Eskom unbundling

Introduction

Eskom and the wider electricity sector regularly feature in Pipes & Wires under a broad range of headings. This article examines the recent re-think on the proposed unbundling of Eskom's business units, and the possible implications for access to capital.

A bit about Eskom

Eskom is a vertically-integrated state-owned electricity company with a fascinating history dating back to its founding in 1923. A few key facts…

- Annual revenue is about R260b (about US$16b).
- Total generation includes 45,000MW of coal, 1,900MW of nuclear and 3,400MW of hydro.
- Transmission line length is about 33,000km at 275kV, 400kV, 765kV and 533kV DC.

The proposed unbundling

During his State Of The Nation address in February 2019, President Ramaphosa announced that the vertically-integrated Eskom would be unbundled into separate generation, transmission and distribution companies, each functioning as independent state-owned corporations with their own board although initially established within Eskom Holdings. It was expected that this process would take 5 years, with priority being given to establishing a stand-alone transmission company first.

It should be noted that the planned unbundling of Eskom was first formally proposed in 1998 (almost 30 years ago).

The latest rethink and its possible implications

In December 2025 a revised unbundling strategy was approved by Electricity Minister Ramokgopa will see Eskom unbundled into generation, transmission, distribution and renewable energy subsidiaries but under a single holding company. Apparent reasons for retaining with a single holding company are to better facilitate a competitive electricity market and to better allow each division to manage their debt.

This retreat from full unbundling has prompted rapid observations that potential conflicts will emerge with all subsidiaries reporting to the same board, and a reduced ability to attract investment capital for major initiatives such as the Just Energy Transition and the building of new transmission lines.

Pipes & Wires will provide further commentary as news emerges.

Regulatory setting and policies

NZ – amending the gas transmission Input Methodologies

Introduction

Predictability of regulatory parameters is key to incentivising efficient long-term investment. The NZ gas pipes, electricity wires and airport regulatory frameworks require Input Methodologies (IM's) to be defined by the Commerce Commission, and the setting of those IM's for gas transmission pipelines is the subject of this article which examines the draft decision to set some context for examining the final decision.

Regulatory framework

The regulatory framework for the IM's is set out in Part 4 of the Commerce Act 1986, specifically in Subpart 3 of Part 4. Section 52V sets out the process that the Commission must follow for determining the IM's, which includes *inter alia*…

- The requirement for the Commission to publish a notice of intention.
- The requirement to publish a draft, consult on that draft and have regard to views received.

Draft and final amendments

The following table compares the Commission's final decision to its' proposed amendments…

Draft decision (proposed amendments)	Final decision
Amend the specification for the amount of wash-up drawdown that is available in any given year.	

Amend clause 3.1.4 of the IM's to include the Wash-Up Account Balance 2025, which will allow the pipeline business to drawdown its accrued DPP3 wash-up balance in 2027 as intended.	

Pipes & Wires will pick up this story again as the final decisions emerge.

Energy mix and grid security

Aus – the final report on the wholesale market settings

Introduction

Pipes & Wires #234 noted the draft report on the NEM Wholesale Market Settings Review. This article examines the recently released final report.

Recapping the study scope

The terms of reference for the Review require the Review to consider…

- How to move beyond the energy-only spot market pricing signals to promote investment in firmed, renewable generation and storage.
- How best to enable consumers to contribute to and benefit from the market, particularly around improving capacity utilisation.
- How will east coast gas prices change and evolve with the move towards more firmed, renewable generation and storage ?
- How might the wholesale market and the derivative markets allow market participants to best respond to price fluctuations ?
- How can the provision of system services by large thermal generators be provided at least cost as those thermal generators are withdrawn from the market ?
- How might market competition be maintained as generation migrates from a small number of large generators and a large number of small generators ?

Comparing the draft and final reports

Comparisons of the key features of the draft and final reports are…

Draft report	Final report
The NEM is becoming more weather dependent and more energy constrained. Variable renewable generators are inherently weather dependent, introducing greater day-to-day and seasonal variability in supply. This growing reliance on weather-dependent resources increases the risk of periods where the market is energy constrained.	Reiterated the draft report's conclusion that changes in the way electricity is generated is making the NEM more weather dependent.
The NEM is less scheduled and less dispatchable. Millions of new, small-scale, price-responsive generators (ie. batteries) are expected to enter the market. Without reform to make these resources more "scheduled" and observable to the market operator to market participants, the market may not be able to function without significant over-investment.	Reiterated the draft report's conclusion that changes in the way electricity is generated is making the NEM less scheduled and less dispatchable. The final report notes that unless the market operator and market participants have visibility of the rapidly increasing number of DER's, significant over-investment may be required.
Short term – emerging pressures in the spot market. At an operational level the spot market remains functional and broadly effective. Its core mechanisms continue to provide efficient dispatch and price discovery. But the nature of price formation in the spot market is changing, as the system shifts from a system where demand and supply-side fuel costs drive the price, to a market where supply-side variability driven by weather-dependent variable renewable energy is increasingly important.	Reiterated the draft report's conclusion that the nature of price formation in the spot market is changing, and that whilst the existing wholesale spot market be retained as the core of the NEM, measures should be introduced to increase the visibility and participation of hidden price-responsive resources. Further reforms to ensure that the NEM can operate securely and reliability into the future should also be considered.
Medium term – liquidity and access challenges in the contract market. The derivatives market provides the scaffolding necessary to	Reiterated the draft report's conclusion that the availability of traditional hedging instruments is likely to decline as thermal

manage financial risk, allowing participants to transfer risk to those best equipped to manage it. As the spot market becomes more weather dependent and energy constrained, new financial risks emerge that need to be managed with a derivatives market being key. Traditional hedging instruments are likely to become less available as thermal generation is withdrawn from the market.	generation withdraws from the market, it is recommended that permanent market making obligation framework be established.
Long term – structural barriers to long term investment. The long term success of the NEM requires timely long term investment including firming, storage and essential system services. However, significant investment has rarely occurred without some form of government support such as the Renewable Energy Target (RET). Policies such as the RET have substituted renewables for coal without any additional requirements to provide other services such as shaping, firming and grid services (such as frequency control, voltage support and inertia).	Reiterated the draft report's conclusion that strong incentives for long-term investment are required. The final report recommends the establishment of an Electricity Services Entry Mechanism to provide durable long-term investment signals whilst preserving the efficiency of the energy-only sport market.

This concludes Pipes & Wires examination of the Wholesale Market Settings Review.

Aus – the updated Integrated System Plan

Introduction

The Australian Energy Market Operator (AEMO) recently published its Draft 2026 Integrated System Plan (ISP), the road map for the National Electricity Market (NEM). This article examines the key features of that Draft ISP to set some context for the Final ISP.

Regulatory framework

The ISP provides a whole-of-system plan for the efficient development of the NEM for the next 20 years, seeking to optimise investment in generation, storage and transmission. Section 49(2) of the National Electricity Law sets out the AEMO's specific obligations in regard to long-term transmission grid planning.

Key features of the Final 2024 ISP

A comparison of the Draft and Final ISP's are as follows…

Key features of the Draft ISP	Key features of the Final ISP
Australia is relying more and more on renewables… • Over 40% of all electricity in the 2024/25 year. • About 51% for the month of October 2025. • About 79% for a single half-hour on 11th October 2025.	
Investment is shifting from kick-starting the energy transition to de-risking that transition by ensuring sufficient grid-scale infrastructure to off-set coal retirements.	
Renewables are being supported by other technologies including… • Extending transmission grids to connect new renewable energy zones. • Enhancing distribution networks to optimise voltage control and host roof-top solar and household batteries. • Declining battery costs, and emerging battery technologies. • New gas-fired generation with flexible operating modes. • Existing hydro and pumped storage generation. • More flexible operation of remaining coal generation.	
The Optimal Development Path (ODP) out to 2050 would see the NEM having… • About 120,000 MW of grid-scale wind and solar. • A further 87,000 MW of rooftop and small-scale solar. • About 40,000 MW of grid-scale storage and hydro. • A further 27,000 MW of household and commercial batteries. • About 14,000 MW of flexible gas-fired generation. • A further 6,000km of transmission.	

The nett market benefits are expected to be $24b.	

Pipes & Wires will comment further when the AEMO publishes its Final ISP.

Network regulatory decisions

NZ – cost of capital decisions

Introduction

The Commerce Commission recently released the cost of capital determinations that will apply to the following regulated infrastructure…

- FirstGas pipeline businesses.
- Powerco's gas distribution business.

This article examines the key features of those decisions.

Regulatory frameworks

The regulatory frameworks are set out in…

- Clauses 2.4.1 to 2.4.9 of the Gas Distribution Services Input Methodologies Determination 2012 (consolidated as of 23 April 2024).
- Clauses 4.4.1 to 4.9 of the Gas Transmission Services Input Methodologies (IM Review 2023) Amendment Determination 2023.

Key features of the FirstGas and Powerco WACC's

Key features of the FirstGas and Powerco WACC's include…

Parameter	25th percentile	Mid-point	75th percentile
Vanilla WACC	5.69%	6.45%	7.20%
Post-tax WACC	5.11%	5.87%	6.62%

Aus – gas under pressure (AGN's Revised Proposal)

Introduction

Australian Gas Networks (AGN) recently published its Revised Proposal for its South Australian gas distribution business for the 5 year regulatory period commencing on 1st July 2026. This article examines the key features of that Revised Proposal to set further context for the AER's Final Decision.

A bit about AGN

AGN owns gas transmission and distribution pipelines across most of Australia, and has a long history that includes the privatisation of legacy gas pipeline businesses such as SAGASCO and the Gas & Fuel Corporation. This article focuses on AGN's South Australia gas distribution business which supplies 485,000 customers.

The regulatory framework

Key elements of the regulatory framework include…

- The National Gas (South Australia) Act 2008.
- The National Gas Objectives.
- The National Gas Rules.

Key features of the process to date

Key features of the process to date include…

Parameter	Initial Proposal	Draft Decision	Revised Proposal	Final Decision
OpEx excl. ARS	$464m	$396m	$434m	
CapEx	$503m	$428m	$337m	

Opening RAB	$2,054m	$2,066m	Not stated	
Rate of return	6.2%	$6.05%	6.51%	
Regulatory depreciation	$109m	$67m	Not stated	
Revenue excl. ARS	$1,317m	$1,188m	$1,288m	

Pipes & Wires will pick up this story again when the AER publishes its Final Decision.

NZ – resetting the DPP4 for the Tasman – Nelson merger

Introduction

Last year Network Tasman acquired the 50% stake in Nelson Electricity that was previously owned by Marlborough Lines. This article briefly examines the merger and then looks at the Commerce Commission's draft decision on how the default price-quality paths (DPP's) applying to Network Tasman and Nelson Electricity will be merged into a single DPP applying to the enlarged Network Tasman.

The merger and its regulatory implications

Network Tasman purchased Marlborough Lines' 50% stake in Nelson Electricity in March 2025 for $27m. This will give Network Tasman a consolidated network footprint throughout the entire Nelson and Tasman region, providing electricity line services to about 53,500 customers.

As of early 2026, Nelson Electricity has not been fully (legally) amalgamated with Network Tasman, but rather operates as a wholly-owned subsidiary. However, because of the timing of the acquisition (March 2025), the businesses are deemed to have merged from 1st April 2025, and the Commission's draft decision accordingly applies from that date (which coincides with the start of the DPP4 revenue control).

In December 2025, Network Tasman and Nelson Electricity submitted a proposed amalgamation of revenue paths and quality (reliability) standards to the commission for their consideration.

Regulatory framework

The overall regulatory framework for the DPP is set out in Subpart 6 of Part 4 of the Commerce Act 1986, with the specific treatment of mergers set out in Subparts 2 and 3 of Part 3 of the Electricity Distribution Services Input Methodologies (IM Review 2023) Amendment Determination 2023 (the IM's).

The draft and final DPP decisions

In accordance with the IM's, the Commerce Commission has considered Network Tasman's request to amalgamate the DPP's and calculated the following draft decisions…

Parameter (for the DPP4 period)	Draft decision	Final decision
Aggregated CapEx	$112.870m	
Aggregated OpEx	$106.398m	
Aggregated Planned SAIDI	901.41	
Aggregated Unplanned SAIDI	82.31	
Aggregated Planned SAIFI	4.0065	
Aggregated Unplanned SAIFI	1.0062	

Pipes & Wires will comment further when the Commission publishes its final decision.

General stuff

Guide to NZ electricity laws

I've compiled a "wall chart" setting out the relationship between various past and present electricity Acts, Regulations, Codes etc in sort of a chronological progression. To request your free copy, pick here. It looks really cool printed in color as an A2 or A1 size.

A bit of light-hearted humor

What if price control had been around in the 1920's and 1930's ? A collection of classic historical photo's with humorous captions looks at some of the salient features of price control. Pick here to download.

Extending the above, a second collection of classic historical photo's with humorous captions looks at some topical issues of regulating emerging technologies. Pick here to download.

A potted history of electricity transmission

I've recently compiled a potted history of electricity transmission. Pick here to download.

Wanted – old electricity history books

Now that I seem to have scrounged pretty much every book on the history of electricity in New Zealand, I'm keen to obtain historical book, journals and pamphlets from other countries. So if anyone has any unwanted documents, please email me.

House-keeping stuff

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