

Pipes & Wires

Thought leadership of critical energy & infrastructure matters
Issue 234 – October 2025

From the editor's desk...

Welcome to Pipes & Wires #234 this issue starts with some regulatory decisions in New Zealand, Australia and Britain, and then examines the sale of some unregulated energy businesses in Mexico.

We then look at South Africa's energy transition, and examine the draft report on Australia's wholesale market settings. This issue then concludes with a look at the proposed expansion of the Cahora Bassa hydro plant in Mozambique. So ... until next time, happy reading...

Subscribe to Pipes & Wires

If you're receiving this second-hand, pick this [link](#) to subscribe.

Recent client projects

Recent client projects include...

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.

Transaction advisory (\$12b and counting)

- Forecasting AugEx, RepEx and OpEx, advising on likely revenue cap implications.
- Identifying strategic, commercial and regulatory red-flags.

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 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.

Regulatory analysis

- Reviewing the AER's recent treatment of network 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.

www.utilityconsultants.co.nz

4 Lansbury Court, Hamilton 3210, New Zealand Phone +64-7-8546541

- Translating demand forecasts into AugEx.
- Reviewing procurement models and processes.

Global trend and pattern analysis

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

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.

Network regulatory decisions

NZ – potential amendments to the Electricity IM’s

Introduction

In late June the Commerce Commission announced that it was [beginning work on potential amendments](#) to the [Electricity Distribution Services Input Methodologies Determination 2012](#) (commonly known as the IM’s). This article examines the scope of the proposed amendments.

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.

Scope of the proposed amendments

The Commission has identified a potential IM amendment in regard to Customised Price-Quality Path applications during the 4th Default Price-Quality Path (DPP4), viz...

- When setting a DPP, we may determine “alternate X-factors” to defer revenue from earlier years of the DPP to the later years for the purpose of mitigating price shocks to consumers. Under the current IMs, this DPP deferred revenue is permanently foregone should an EDB transition to a CPP from a DPP.
- A potential IM amendment would explicitly provide EDBs an avenue to recover revenue deferred under a DPP when they move to a CPP.

The Commission considers it appropriate to address this issue now rather than wait for the statutory review of the IM’s under [s52Y of the Act](#).

Next steps

The Commission expects to release its final decision in December 2025.

Further readings

Readers may be interested in the following back issues...

- [Pipes & Wires #224](#) - NZ finalising the Input Methodologies decision.
- [Pipes & Wires #167](#) – NZ the Transpower CapEx Input Methodologies Review.

Aus – gas under pressure

Introduction

Australian Gas Networks recently submitted its [Access Arrangement Proposal](#) for its South Australian distribution business to the Australian Energy Regulator (AER) for the next 5 year regulatory period commencing on 1st July 2026. This article examines that Proposal to provide context for the AER’s draft and final decisions.

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			
CapEx	\$503m			
Opening RAB	\$2,054m			
Rate of return	6.2%			
Regulatory depreciation	\$109m			
Revenue excl. ARS	\$1,317m			

Pipes & Wires will pick up this story again when the AER publishes its draft decision.

Britain – the draft RIIO – 3 gas decisions

Introduction

Britain's gas transmission business and the 4 gas distribution businesses are subject to the RIIO – 2 revenue control which expires on 31st March 2026 (the same as the RIIO – 2 revenue control that apply to the 3 electricity transmission businesses that featured in PW 233). This article examines the draft decisions for RIIO – GT3 and RIIO – GD3 to set some context for Ofgem's final decisions.

The gas businesses

The 5 gas businesses are...

- [National Gas Transmission](#) – bulk supply through 5,000 miles of pipelines and 21 compressor stations to the distribution companies.
- [Cadent Gas](#) – supplies 11,000,000 customers throughout the North West, West Midlands, East Midlands, East England and North London.
- [Northern Gas Networks](#) – supplies 2,900,000 customers throughout the North of England.
- [SGN](#) – supplies 5,900,000 customers across the South of England, and across Scotland.
- [Wales and West Utilities](#) - supplies 7,500,000 customers across Wales and the South-West of England

Key features of the draft decisions

Key features of the [RIIO – GT3 draft decision](#) include...

- Reiteration of previous expectations that gas transmission will support decarbonisation goals, including cooperation and collaborative planning with the wider energy sector.
- Retaining the incentives to reduce the carbon impact of compressor and pipeline gas venting, including a reduced venting target.
- Retaining the Network Asset Risk Metric price control deliverable.
- Extending the Gas Strategic Planning Re-Opener mechanism to include outputs from more external agencies.
- Consideration of re-openers for asset health and capacity changes.

Key features of the [RIIO – GD3 draft decision](#) includes...

www.utilityconsultants.co.nz

4 Lansbury Court, Hamilton 3210, New Zealand Phone +64-7-8546541

- The view that although the pace and scale of the transition away from gas is uncertain, Ofgem does not anticipate large, systemic changes during the RIIO – 3 period.
- A consequent recognition that gas distribution networks will therefore need to maintain secure and reliable supply, with an associated RepEx allowance of £5.9b to replace deteriorating mains.
- Only approving spending for which strong customer benefits have been stated.
- Recognition of asset stranding risk, and mitigating its impact on investors.
- A draft baseline TotEx for all 4 gas distribution businesses of £12.8b, which is £3.8b less than proposed in the business plans.

Pipes & Wires will comment further as the final decisions emerge.

Further reading

Readers may be interested in the following articles...

- [Britain – the RIIO 3 revenue control.](#)
- [Britain – the RIIO ED3 revenue control.](#)
- [Britain – the final PR24 water revenue decisions.](#)

NZ – recent cost of capital determination

Introduction

The Commerce Commission recently released the [cost of capital determinations](#) that will apply *inter alia* to electricity distribution businesses for the Disclosure Year 2026 (DY26, ending 31st March 2026). This article examines the key features of those determinations.

Regulatory frameworks

The regulatory framework is set out in clauses 2.4.1 to 2.4.9 of the [Electricity Distribution Services Input Methodologies Determination 2012 \(consolidated to 23 April 2024\)](#). This determination is made pursuant to [Part 4 of the Commerce Act 1986](#).

Key features of the EDB WACC's

Key features of the EDB WACC's include...

Parameter	25 th percentile	Mid-point	65 th percentile	75 th percentile
Vanilla WACC	5.81%	6.53%	6.95%	7.26%
Post-tax WACC	5.17%	5.90%	6.31%	6.62%

Industry reshuffling and capital allocation

Mexico – Iberdrola sells unregulated energy assets

Introduction

Subject to regulatory approval, Spanish energy giant Iberdrola recently agreed to sell 15 unregulated energy plants in Mexico for \$4.7b. This article examines the wider Iberdrola group, its strategy and this transaction.

A bit about the Mexican business

Iberdrola's Mexican business historically included about 8,500MW of combined cycle generation as well as wind generation. About 55% of these Mexican assets were sold to the Mexican government in 2024 for \$6b, giving the Mexican government effective control of the electricity market.

This article focuses on the residual Mexican business which includes 1,368MW of combined cycle generation and 1,232MW of wind generation.

A bit about Iberdrola

Iberdrola was formed in 1992 from the merger of [Hidroeléctrica Española](#) and [Iberduero](#) (which itself was formed from the merger of Hidroeléctrica Ibérica and Saltos del Duero in 1944). Each of the UK and US subsidiaries have equally interesting evolutions. Iberdrola has a very clear strategy of accelerating electrification in markets with strong credit ratings.

Iberdrola's strategy

Iberdrola has a clear [strategy](#) of investing to accelerate the energy transition in markets with solid credit ratings, which includes investing €41b over the 2024 – 2026 period, of which €21.5b will be into networks. This transaction highlights the migration of capital from unregulated energy to regulated networks.

The deal

The sale to Cox of all of Iberdrola's remaining 1,368MW of combined cycle and 1,232MW of wind generation for an initial price of \$4.7b includes further payments as projects under construction are completed. The sale assumes a valuation multiple of \$1.6m per MW (which seems about right for recent wind sales, and high for recent gas-fired sales).

Energy mix and grid security

South Africa – the Just Energy Transition

Introduction

Like many countries, South Africa is migrating away from base-load coal-fired generation. This article examines the proposed Just Energy Transition

Key features of the Just Energy Transition

Eskom's [Just Energy Transition](#) comprises three strands ... Just, Energy and Transition which are depicted very well as follows (from Eskom's website)...

JUST <i>Doing better for people and the planet</i>	ENERGY <i>Continued Electricity provision</i>	TRANSITION <i>Transformational change of business models</i>
- Detailed studies of socio-economic impact of plant shutdown on employees and communities - Stimulate local manufacture and job creation, competitiveness - Emission reductions – air quality and carbon emissions - Managing rehabilitation liabilities - Customer needs driven	- Repowering ageing coal fleet - Increasing share of renewable energy - Increasing share of gas - Storage options - Grid strengthening - Smart grids - Electricity access through micro grid options	- Repurposing ageing coal fleet - Future of the Generation business vis-à-vis increasing role of IPPs - Separate coal and green business - A different Eskom from what we now know – Transmission, Distribution, Generation redefinition - Enable private sector financing, partnerships - New revenue streams to contribute to JET

Comparison of current and future generation mixes

Eskom's current and (proposed) future installed generation mixes are as follows...

Primary energy	2025	2040
Coal	38,000 MW	18,000 MW
Gas and Diesel	2,000 MW	12,000 MW
Nuclear	1,800 MW	10,000 MW
Hydro	2,500 MW	32,000 MW
Wind	3,500 MW	
Solar	2,000 MW	

Proposed coal-fired station closures

It is proposed to close the following coal-fired stations, noting the deferral of closures to 2027...

Station	Rating	Key dates	Location	Proposed closure date
Camden	8 x 200 MW	- Commissioned 1967 - Moth-balled 1990 to 2006	Camden, Mpumalanga.	- Originally 2023. - Now delayed to 2027.

www.utilityconsultants.co.nz

4 Lansbury Court, Hamilton 3210, New Zealand Phone +64-7-8546541

		• Re-commissioned 2005 to 2008		
Grootvlei	6 x 200 MW	• Commissioned 1969. • Moth-balled 1989 to 1990. • Three units re-commissioned 2008.	Grootvlei, Mpumalanga.	• Originally 2027. • Now delayed to 2030.
Hendrina	10 x 200 MW	• Commissioned 1970 to 1976.	Pullenshope, Mpumalanga	• Originally 2027. • Now delayed to 2030.
Arnot	6 x 350 MW	• Commissioned 1971 to 1975 • Three units moth-balled 1992 to 1997. • Tree units re-commissioned 1997 to 1998.	Arnot, Mpumalanga	• Provisionally 2030

In addition to the above 6,900 MW, Eskom plans to close a further 16,100 MW of coal-fired generation by 2040.

Further reading

Readers may be interested in the following articles on energy transition and coal closures...

- [Aus – keeping thermal plant in the market.](#)
- [Germany – returning coal-fired generation.](#)
- [Aus – delaying the coal closures.](#)
- [US – securing generation in the Lone Star State.](#)

Energy markets and pricing

Aus – the draft NEM Wholesale Market Settings Review report

Introduction

The Department of Climate Change, Energy, the Environment and Water (DCCEEW) recently released its [draft report on the NEM Wholesale Market Settings Review](#). This article follows on from the commentary in Pipes & Wires #230, and examines the key features of the draft report to set some context for the 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 ?

Headline comments from the draft report

The draft report notes that the NEM is facing mounting pressures. Due to changes to the way we generate and consume electricity the NEM is becoming a system that is...

- 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.

www.utilityconsultants.co.nz

4 Lansbury Court, Hamilton 3210, New Zealand Phone +64-7-8546541

- 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.

The draft report considers the following three trends...

- 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.
- Medium term – liquidity and access challenges in the contract market. The derivatives market provides the scaffolding necessary to 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.
- 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).

Next steps

Following a period of feedback, the final report is expected in late 2025.

Engineering and technology

Mozambique – expanding the Cahora Bassa

Introduction

I first learned about the [Cahora Bassa hydro dam](#) when I was working for Eskom in 2009, which included a fascinating history. This short article examines the existing dam, its’ fascinating history, and the proposed capacity expansion.

The history

Cahora Bassa is 1 of 2 major hydro dams on the Zambesi River in Mozambique (the other being [Kariba](#)), and was built over the period of 1969 to 1974 by the Portuguese colonial government of Mozambique. The dam itself is 303m along the crest and 171m high, and has five 415MW [Francis turbines](#) for an installed capacity of 2,075MW.

The dam was built to supply electricity to South Africa via a [1,420km long HVDC line](#) operating at $\pm 533\text{kV}$ and 1,920MW (which was the world’s first transmission line operating at more than 1,000kV between conductors). As a side note, it was a pleasure to take a guided tour of the Apollo Converter Station in Johannesburg as a guest of Eskom.

The colonial history adds an interesting dimension to what I guess was a simple but large hydro dam construction project, especially given that the entire plant was idle from 1985 to 1997 during the Mozambican civil war.

Proposed expansion

The proposed expansion includes the installation of a 1,245MW hydro plant on the north bank of the Cahora Bassa downstream of the existing plant. This will provide further clean energy options for Eskom, which already takes about 60% of Cahora Bassa’s generation.

Additionally, the proposed separate [Mphanda Nkuwa hydro dam](#) 60km downstream will generate 1,500MW.

www.utilityconsultants.co.nz

4 Lansbury Court, Hamilton 3210, New Zealand Phone +64-7-8546541

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

Opt out from Pipes & Wires

Pick this [link](#) to opt out from Pipes & Wires. Please ensure that you send from the email address we send Pipes & Wires to.

Disclaimer

These articles are of a general nature, they do not constitute specific legal, consulting or investment advice, and are correct at the time of writing. In particular Pipes & Wires may make forward looking or speculative statements, projections or estimates of such matters as industry structural changes, merger outcomes or regulatory determinations. These articles also summarise lengthy documents, and it is important that readers refer to those documents in forming opinions or taking action.

Utility Consultants Ltd accepts no liability for action or inaction based on the contents of Pipes & Wires including any loss, damage or exposure to offensive material from linking to any websites contained herein, or from any republishing by a third-party whether authorised or not, nor from any comments posted on Linked In, Face Book or similar by other parties.