Directlink Joint Venture

2025-2030 Revenue Proposal Overview

31 January, 2024

Energy Infrastructure Investments

Contents

Acknowledgement of Country

At Directlink, we acknowledge the Traditional Owners and Custodians of **Bundjalung** country on which our asset is operated and maintained.

We acknowledge their connections to land, sea and community.

We pay our respects to their Elders past and present, and commit to ensuring Directlink operates in a fair and ethical manner that respects First Nations peoples' rights and interests.

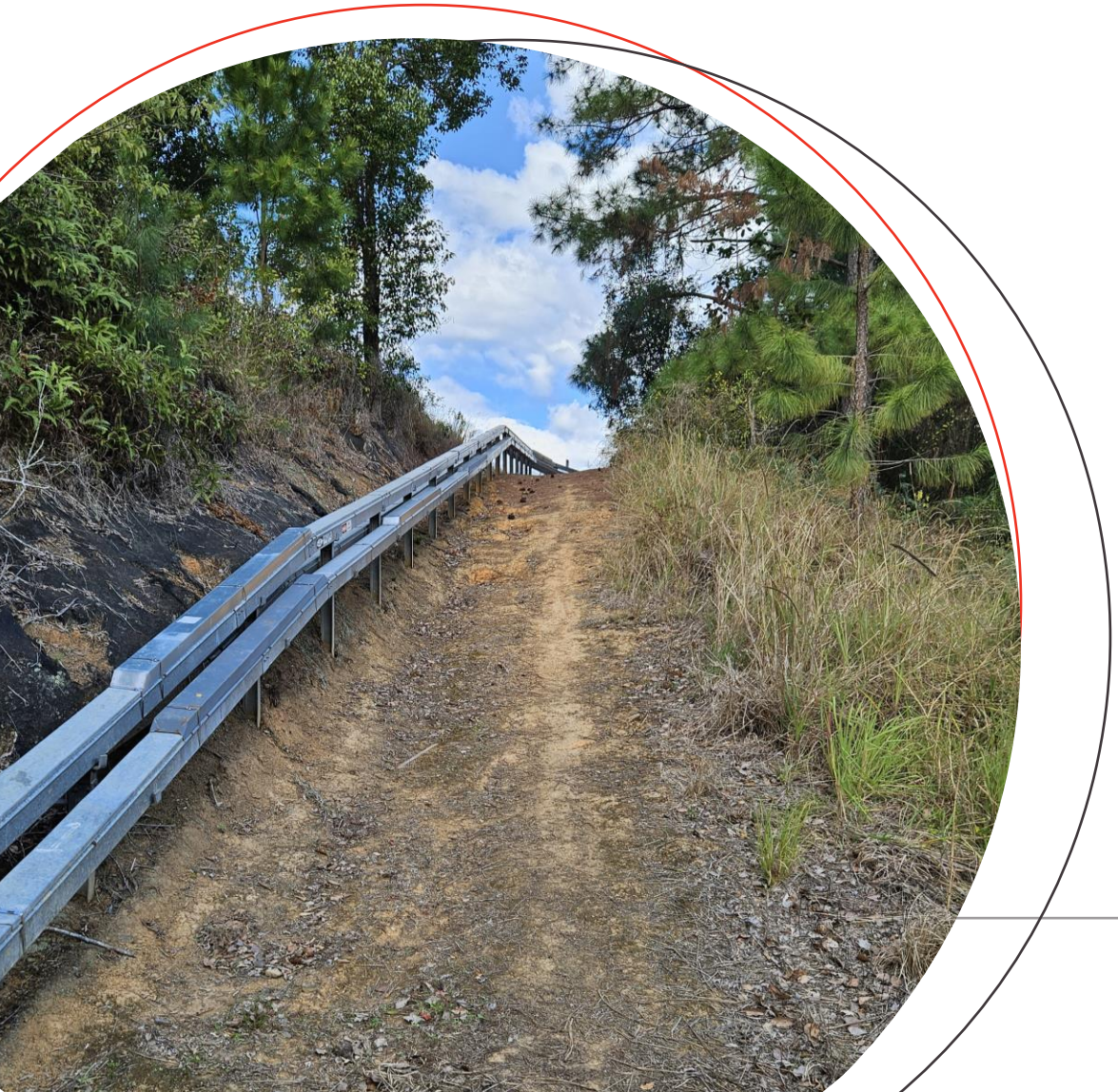
About this document

On 31 January 2024, Directlink submitted its Revenue Proposal for the 1 July 2025 to 30 June 2030 (2025–30) regulatory period to the Australian Energy Regulator (AER).

This document has been prepared for customers and stakeholders to provide an overview of our Revenue Proposal.

We welcome customers and other stakeholders' views on this Revenue Proposal. Please share your views with us by emailing yoursay@apa.com.au

The AER will make its final determination in April 2025.



About Directlink

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About Directlink

Directlink is an interconnector running between Mullumbimby and Terranora in NSW. Although Directlink is the smallest regulated asset in the National Electricity Market, it plays an important role in facilitating the transfer of energy between Queensland and New South Wales.

Interconnector
Operates like a two-way highway for electricity to be sent between QLD and NSW

180MW
Delivery of capacity to both NSW and QLD

63 km
of transmission lines consisting of 3 parallel high voltage direct current transmission lines

2
Converter stations at Bungalora and Mullumbimby

December 2000
Directlink was commissioned in 2000 using leading edge technology for the time. It is due to reach the end of its economic life in 2042

3 Owners
MM Midstream Investments Pty Ltd (49.9%)
Osaka Gas Energy Oceania Pty Ltd (30.2%)
APA Group Limited (19.9%)

~$16M
Approximate current annual revenue

0.10%
of NSW customers' total electricity bills comprise of Directlink costs

Operating context

Directlink is operated by the Australian Energy Market Operator (AEMO) and plays an important role in lowering costs for customers by helping to reduce wholesale market volatility by moving energy to where it is needed.

Directlink assists in stabilising the electricity grid when renewable energy is intermittent. This role will become increasingly critical during the energy transition.

The link is dispatched by AEMO, in a similar manner to a generator, to control flows between the NSW and Queensland regions of the National Electricity Market (NEM) and thereby minimising the costs of generation in the NEM.

The natural environment that Directlink operates in is challenging. The area is environmentally sensitive, has high rainfall, and in some locations, Directlink's easement is surrounded by dense vegetation which leads to issues of access to the easement and the above ground sections of the cable. In addition, there are 124 water crossings and 17 tunnels across the easement. Due to the nature of the rainfall in the area, the water levels in the creeks are highly variable resulting in threats of flooding and landslips.

Directlink will reach the end of its economic life and be fully depreciated in 2041-2042. Planning for its end of life will need to be considered for the 2025-30 period to ensure reliability and affordability is balanced for continued operation to 2042.

Our strategic objective is to be a prudent and efficient operator that manages Directlink to ensure safety, compliance and deliver maximum availability to realise long-term value for the community, our customers and Directlink.

Growth

Helps to meet the electricity needs of the growing population centre south of the Gold Coast.

Challenging environment

High annual rainfall, with average rainfall of 1,800mm in the Mullumbimby area. Difficult terrain, easements run through steep terrain, environmentally sensitive land and across different land uses.

Energy transition

Directlink assists in stabilising the electricity grid when renewable energy is intermittent. This role will be increasingly critical during the energy transition.

Planning for end of life

Key technology in the original design of Directlink will be obsolete or sub-optimal by approximately 2042. Planning for its end of life has been a key consideration for the 2025-30 period to ensure reliability and affordability is balanced for continued operation to 2042.

Key highlights for the 2020-25 period

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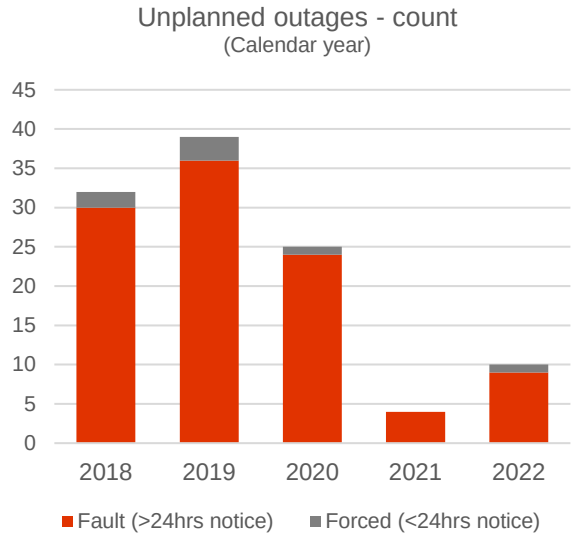
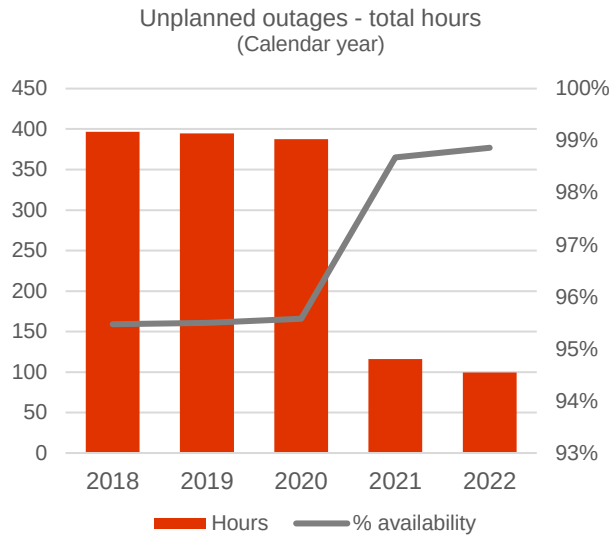
Key highlights for the 2020-25 period

Before 2021, Directlink's reliability performance was sub-optimal due to legacy construction issues and its operating environment. However, recent improvements are evident, with fewer than 10 unplanned outages in each of the last two years and a 75 percent reduction in associated downtime hours. In the 2022 calendar year, Directlink achieved an availability of 99 percent.





Investments in the current period (2020 to 2025) to improve reliability include:

Long running cable repair strategy has reduced our cable failure rate

Significantly improved fire protection system to prevent future damage from fire

Control and protection system replacement to improve reliability

Insulated- Gate Bipolar Transistors (IGBT) replacement to mitigate obsolescence risk

The most significant project is the IGBT replacement. An IGBT controls the flow of electrical power, turning it on and off efficiently to convert from alternating current to direct current. It manages this by precise control which minimises energy loss.

The AER provided an allowance of $15.7 million for the 2020-25 regulatory period to enter into a long-term service agreement with Hitachi (the sole provider of Directlink's IGBTs) to manage the maintenance of the IGBTs.

In October 2018, Directlink was notified by Hitachi, that due to the cessation of the manufacture and supply of crucial inputs, it would no longer provide support for, or manufacture, the IGBTs used in Directlink. This meant that action was required to replace the obsolete IGBTs so Directlink could continue to operate and provide its full capacity.

Directlink commenced a project in 2022 to replace the obsolete IGBTs which is due for completion in 2025-26. Total cost of the replacement is $25.6 million, with approximately $6 million being spent in the 2025-30 regulatory period.

Our Engagement

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Our Engagement

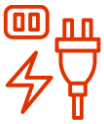
Our engagement process

Directlink has approached this stakeholder engagement with the understanding that, although Directlink is the smallest transmission network in the NEM, it plays an important role in supporting NSW and QLD customers.

Our objectives for stakeholder engagement during the regulatory process are to deliver a revenue proposal that:

'Brings the outside in' by directly responding to the needs and preferences of our customers and other key stakeholders.

Provides sustainable returns for shareholders and investors.



Delivers a reliable supply of electricity between New South Wales and Queensland.

Supports the energy transition in New South Wales and Queensland.

Stakeholder interactions

We established a series of meetings where we invited many stakeholders to participate and share their views and preferences on Directlink and how it should operate in the future. Stakeholder input was instrumental in helping to improve our understanding of the needs and expectations of different consumer segments.

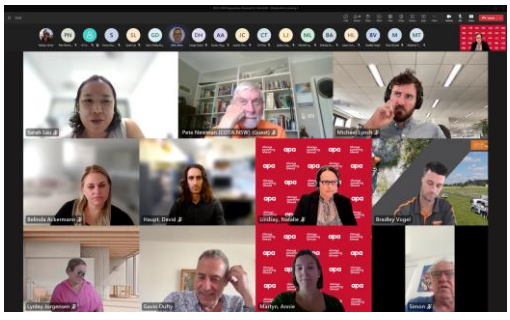
We asked our stakeholders to:

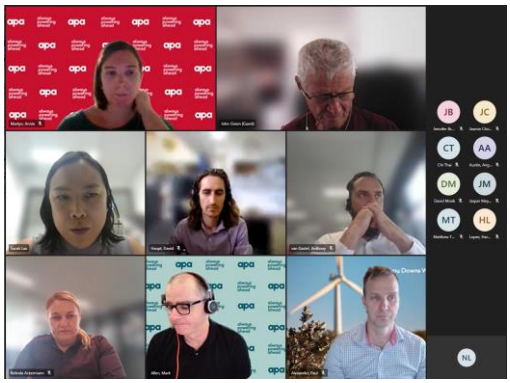
- Provide independent feedback and challenge Directlink on the degree to which its Revenue Proposal addresses the needs and preferences of customers.
- Co-design the engagement program, including scope, timing, themes and engagement activities.
- Input into the development of the Revenue Proposal and challenge key components including operating expenditure and capital expenditure.
- Assist in improving Directlink's understanding of the needs and expectations of different customer segments, including vulnerable groups.

Attendees at our stakeholder meetings as well as individual meetings included:

BYRON SHIRE COUNCIL	• David Haupt
COTTON AUSTRALIA	• Jennifer Brown
COTA NEW SOUTH WALES	• Marika Kontellis • Pete Newman • Maxi Victoria
COTA QUEENSLAND	• John Green • Robyn Robinson
essential energy	• Bradley Vogel
EUAA Energy Users Association of Australia	• Mark Grenning
Independent expert	• Simon Bartlett
Public Interest Advocacy Centre	• Craig Memery • Michael Lynch
QEUN	• Jennifer Brownie
St Vincent de Paul Society good works	• Gavin Dufty
Transgrid	• Belinda Ackermann
AEMO	
AUSTRALIAN ENERGY REGULATOR	

We sincerely thank our stakeholders for their commitment, active participation and thoughtful insights, feedback and challenge throughout Directlink's engagement activities. The engagement outcomes have enriched our understanding and has led to meaningful outcomes as discussed below.





To date, we have conducted a co-creation workshop, four stakeholder meetings and seven individual stakeholder meetings. This included several meetings with representatives of AEMO to better understand the role Directlink plays in the NEM. Following the AER's release of its Draft Decision, our intention is to reconnect with stakeholders. A timeline of Directlink's engagement interactions is shown below.

31 August 2023	Co-creation workshop with stakeholders	Identification of core issues and priorities
11 September 2023	Stakeholder Meeting #1	Future of Directlink
11 September 2023	Meeting with AEMO	Outage duration and planning
13 September 2023	Meeting with AEMO	Blackstart support
11 October 2023	Stakeholder Meeting #2	Forecast capital expenditure
18 October 2023	Meeting with Energy Users Association of Australia	Future of Directlink and capital expenditure
1 November 2023	Meeting with Essential Energy	DC and AC systems and converter
8 November 2023	Stakeholder Meeting #3	Forecast operating expenditure and building blocks
9 November 2023	Meeting with AEMO	How Directlink fits into the Integrated System Plan (ISP)
13 November 2023	Meeting with Energy Users Association of Australia	Directlink capital expenditure and operating expenditure
16 November 2023	Supplementary Meeting - Stakeholder Meeting #3	Forecast operating expenditure and building blocks
24 November 2023	Meeting with Byron Bay Shire Council	Directlink – Byron Bay Shire Council impacts
4 December 2023	Stakeholder Meeting #4	Proposal overview
January 2024	Stakeholder group	Stakeholder review of Directlink Revenue Proposal overview
31 January 2024	Directlink submits proposal to the AER	
February 2024 and onwards	Additional stakeholder meetings	To discuss AER Draft Decision and revised proposal

What we heard and how we responded

We have focused our engagement on key issues where stakeholders can have the greatest impact on the Proposal, where their opinion would genuinely influence and guide the final outcomes.

Meeting focus	What we heard	How we responded
Co-creation workshop	▪ Stakeholders sought clarification around how costs and risks are allocated to consumers for the Directlink Interconnector and indicated their interest in affordability and minimising customer risk. ▪ Among the stakeholder group, there was also interest in ensuring the Directlink Interconnector played a role in the Federal Government's objective of net zero by 2050 and the need to consider environmental impacts, including fire risk and climate resilience, in developing the revenue proposal. ▪ Some stakeholders suggested additional stakeholder groups to consult with such as biking groups, small farm holdings and other small communities that may be impacted by changes in the asset's infrastructure. ▪ Stakeholders highlighted concerns around increased vulnerability to supply chain issues particularly in the context of finding spare parts and staffing and labour force issues. ▪ Some stakeholders also indicated support for in depth engagement around the future of the Directlink Interconnector as part of the engagement process. ▪ Stakeholders broadly endorsed the proposed engagement objectives and mapping of issues for the revenue proposal.	▪ Directlink has noted concerns around energy affordability and has sought to clearly outline trade-offs between affordability, reliability and risk in discussing its capital and operating expenditure proposals with stakeholders. ▪ Directlink has considered the need to manage climate risk and resilience, with $179,368 proposed to future protect against land slip risks, included in its revenue proposal. ▪ Vulnerability to supply chain issues and labour force issues were discussed with stakeholders in Meetings 2 and 3 as part discussions around proposed capital and operating expenditure. ▪ Directlink will continue to engage with a broad range of stakeholders as the AER assesses its revenue proposal.
Meeting 1: Future of Directlink	▪ Stakeholders wanted to ensure that the continued reliability of the asset was a key priority for Directlink, noting increased concerns around cost pressures and labour shortages. Some stakeholders also asked whether key equipment, such as the control and protection system and remote terminal units, would remain fit for purpose until the end of the asset's life in 2042. ▪ Stakeholders showed strong interest in understanding the options for the Directlink Interconnector once it reaches its end of life in 2042 and what this looks	▪ Directlink has noted the importance stakeholders place on reliability and has taken this into account in developing its capital expenditure plans, which were discussed in detail with stakeholders in Meetings 2 and 3. ▪ Directlink held a number of meetings with AEMO during the development of the revenue proposal to understand future demand for the Directlink Interconnector, with AEMO confirming the continued value the asset provides. ▪ Directlink will continue to consult with stakeholders on plans for the end of the

Meeting focus	What we heard	How we responded
	like for consumers. Some stakeholders queried whether the asset would be needed until the end of its life, while other stakeholders queried whether the asset could be upgraded. ▪ In separate one-on-one stakeholder meetings, AEMO emphasised the criticality of the Directlink Interconnector, particularly as it is in an area of high demand and the energy system is becoming more unpredictable. AEMO also highlighted its preference for shorter outages on the Interconnector and the value it provides in managing voltage. AEMO also noted it continues to assume the Directlink Interconnector's ongoing presence in its ISP modelling.	asset's life over the coming years to understand their preferences. As outlined with stakeholders, Directlink expects the Interconnector's technology will be obsolete or sub-optimal by 2042. As a result, Directlink has included additional operating expenditure of $4.7m in its revenue proposal to account for end-of-life restoration and rectification costs.
Meeting 2: Capital expenditure	▪ Some stakeholders asked about the future demand for the Directlink Interconnector and queried how the risk of outages would be managed. ▪ One stakeholder noted they could understand the need for investment around land risk management. Another noted that the AER was best placed to make this assessment. ▪ A number of stakeholders indicated it was unclear whether the proposed master controller project would be beneficial. One stakeholder noted their preference was to not proceed with this project while another stakeholder stated their interest in undertaking a feasibility study for the master controller. ▪ Stakeholders were particularly interested in Directlink's approach to spares. Stakeholders emphasised the need for Directlink to make reasonable and prudent purchasing decisions, which considered the risk of stranded assets and the risk of costly upgrades if there were insufficient spares. Stakeholders also noted there was a need for further detail on spares and queried the potential risks around spares and opportunities for efficiencies.	▪ To reduce the risk of outages and enable the Interconnector to reliably meet increasing demand, Directlink has included a total of $33.8m in capital expenditure in its revenue proposal, which includes $8.6m in major maintenance and $12.5m for spares management. Directlink has also included operating expenditure for an apprenticeship program in its revenue proposal to manage labour force risks. ▪ To better manage land slip risks, Directlink has included $179,368 in capital expenditure in its revenue proposal. ▪ In light of some stakeholder concerns around the master controller project, Directlink has included $136,488 in capital expenditure to undertake a feasibility study of this project to assess its benefits and whether it should proceed. ▪ Directlink provided further detail on its proposed capital expenditure and spares strategy for stakeholder feedback in Meeting 3. Directlink continues to undertake a critical spares assessment to determine what spares are required and will continue to engage with stakeholders in developing its spares strategy. The spares strategy will take into account the unique nature of many of the Directlink Interconnector's assets and the need for appropriate storage to ensure spares are kept in recommended conditions.

Meeting focus	What we heard	How we responded
Meeting 3: Capital expenditure updates *(Spares management – assets with long lead times)*	▪ Some stakeholders noted the Directlink Interconnector is a critical asset for providing connection between NSW and Queensland. For this reason, most stakeholders were largely risk-averse and prioritised reliability, supporting Directlink's preference to buy enough spares to reach its end of life. ▪ However, some stakeholders raised concerns around affordability and the risk of buying too many spares, indicating a preference for Directlink to buy enough spares to cover expected lead times or enough to reach the end of the regulatory period (2030).	▪ Directlink will continue to develop its spares strategy and discuss its strategy with stakeholders through to the AER's Draft Determination. ▪ Directlink acknowledges the high level of importance placed on reliability by stakeholders as well as concerns around managing the risks of buying too many spares. ▪ Based on the views put forward by most stakeholders, Directlink's revenue proposal includes for assets with: ○ Long lead times, a proposal to buy enough of some spares to reach the end of the Directlink Interconnector's life, with spares for other assets to be purchased based on lead times. ○ A high risk of obsolescence, a proposal to buy enough spares to reach the end of the Directlink Interconnector's life. ○ No change in sourcing and obsolesce risk, a proposal to buy enough spares to cover expected lead times or enough to reach the end of the regulatory period.
Meeting 3: Capital expenditure updates *(Spares management – assets with high risk of obsolescence)*	▪ Stakeholders were largely comfortable with Directlink's preference to buy enough spares to reach the end of the interconnector's life in light of the uncertainty around the future supply of these types of assets. ▪ However, one stakeholder noted their preference for Directlink to buy enough spares to reach the end of the regulatory period (2030) to limit the risk of buying too many spares.	
Meeting 3: Capital expenditure updates *(Spares management – assets with no change in sourcing and obsolescence risk)*	▪ Stakeholders again expressed that the reliability of the asset is essential, noting having enough spares in stock is critical to this. ▪ Stakeholders were broadly comfortable with Directlink's proposal to buy enough spares to cover expected lead times or enough to reach the end of the regulatory period (2030).	
Meeting 3: Operating expenditure	▪ Most stakeholders expressed support for the proposed operating expenditure step change in relation to labour resilience to better manage labour force risks. ▪ Stakeholders noted that the end of life step change sounded logical and there was broad support for spreading the costs of the program across multiple years. However, some stakeholders noted consumers are still experiencing concerns around energy affordability. A stakeholder also noted the importance of ensuring the expenditure set aside for the	▪ Directlink will continue to refine its forecast operating expenditure and will put forward one step change relating to the apprentice program to improve labour resilience and two category specific forecasts relating to insurance and end of life costs in its revenue proposal to reflect additional costs in these categories. ▪ Directlink will continue to work with the AER on the proposed end of life costs, on ways to limit the impact on customers, provide certainty around how this expenditure will be used, and ensure the

Meeting focus	What we heard	How we responded
	end of life program was used for that purpose. ▪ Stakeholders did not raise any concerns around the proposed step change for security of critical infrastructure. ▪ One stakeholder queried the appropriate excess level for Directlink's insurance in relation to the insurance step change. ▪ The stakeholder group was largely supportive of Directlink's draft forecast operating expenditure. However, it was emphasised that consumers are focused on reducing immediate financial burdens.	program is flexible as forecasts are refined. ▪ Directlink is no longer proceeding with the step change on security of critical infrastructure as this expenditure will instead be incorporated into the base year costs. ▪ Directlink remains focused on affordability and will continue to look for opportunities to limit proposed operating expenditure where possible.
Meeting 3: Capital Expenditure Sharing Scheme (CESS) proposal for Insulated-Gate Bipolar Transistor (IGBT) project	▪ There were a range of stakeholder views on Directlink's proposal to separate out the IGBT replacement project from the CESS due to contractual changes by the manufacturer. ▪ One stakeholder noted that Directlink's CESS proposal was reasonable as the ability of Directlink to manage the risk around changes in the IGBT contract were outside of its control. There were concerns from some stakeholders around setting precedents for other network businesses and the risks of weakening the incentives under the CESS for managing capital expenditure allowances. ▪ Other stakeholders also noted the complexity of this issue and noted the AER was best placed to make the decision on how the IGBT project should be treated under the CESS.	▪ Directlink acknowledges the complexity of this issue and the CESS and the risks of setting precedents for other network businesses. ▪ Directlink has put forward a proposal to separate out the IGBT replacement project from the CESS in its revenue proposal due to its limited ability to manage contractual changes by the manufacturer. ▪ Directlink will continue to discuss this proposal with the AER and consider any ways it could limit similar risks from occurring in the future.
Meeting 4: Overview of the revenue proposal	▪ Stakeholders expressed a high level of interest in the detail of Directlink's spares strategy. One stakeholder raised concerns about the ongoing need for the Directlink Interconnector and the risk that consumers will be paying for spares that won't be used until future regulatory periods. However, another stakeholder was supportive of Directlink's spares proposal and noted there needs to be enough spares purchased to account for unforeseen breakdowns. ▪ With regards to the Directlink Interconnector's end of life, one stakeholder noted end of life costs will need to be updated over time, while another stakeholder noted depreciation	▪ Directlink acknowledges the importance of striking the right balance between affordability and reliability in its approach to spares. Directlink will continue to engage with stakeholders to seek their feedback as it further develops its spares strategy. ▪ Directlink understands the end of life program is a significant new annual cost, however these costs will continue to increase if this cost is further delayed to after 2030. As a result, Directlink has included end of life costs in its revenue proposal. Directlink will continue to investigate and refine end of life costs as the Directlink Interconnector get closer to its end of life.

Meeting focus	What we heard	How we responded
	costs will need to reflect the asset's remaining life. Another agreed that it was reasonable that current consumers would contribute to end of life costs. ▪ In relation to insurance, one stakeholder was particularly concerned around affordability and was interested in what Directlink was doing to reduce insurance costs for consumers. Other stakeholders noted there are ongoing increases in insurance costs and that reducing insurance costs for consumers may result in higher risks.	▪ Directlink understands affordability is a key concern for many consumers. While a number of factors affecting the forecast increase in the Directlink Interconnector's revenue for 2025 to 2030 are outside of Directlink's control, such as insurance costs and higher interest rates, Directlink is taking steps to support long term affordability for consumers. This includes: ○ Reducing the risk of needing to undertake costly system upgrades by buying enough spares to reach the end of the Directlink interconnector's life for assets which have a high risk of obsolescence. ○ Undertaking a feasibility study on the master controller project to assess benefits and whether it should proceed, rather than putting forward the project for the 2025 to 2030 period. ○ Reducing the risk of bill shock for consumers by smoothing end of life costs over multiple regulatory periods. ○ Improving the Directlink Interconnector's resilience to extreme weather events and reducing the risk of significant repair costs through capital expenditure to upgrade land slip management.

Please refer to the engagement summary report attached to Directlink's 2025-30 Revenue Proposal for more detail.

Emerging and future challenges for Directlink

Several emerging and future challenges were highlighted at the Directlink co-creation workshop. Our proposal seeks to address these challenges, as outlined below.

Energy transition – Emission reduction objectives are driving significant investment in energy infrastructure and electrification of everything – homes, transport and industry will place extra demand on the energy system. As discussed above, Directlink can help stabilise the grid when renewable energy is intermittent.

Climate change, environment and resilience – Directlink's design means that it is relatively resilient to extreme weather events however there are some elements that require improvement. Our proposal includes investment in land-slip rectification works.

Vulnerability to supply chain issues – Directlink is vulnerable to supply chain issues for some key components. The spares strategy has been a key consideration for the 2025-30 Revenue Proposal.

Labour and skills shortages – Just like other energy companies, Directlink faces competition for limited resources. As a result, our proposal includes the establishment of an apprenticeship program specifically for Directlink. In addition, cost of labour is forecast to increase above inflation in the forthcoming period, which has been reflected in our proposal.

Technology advancements – There is no single driver that will require Directlink to cease operation in 2042, however, a number of key components are expected to be nearing obsolescence – IGBTs in particular. We propose to focus on the reliable and responsible management of the current asset; noting there will be changes in external factors that will inform future investment in interconnectors in this geographical location.

Managing risk – We effectively manage risk by making good, risk informed decisions, that gives us confidence to deliver on our business strategy and plans. This includes considering our commitments to our investors, our staff, our customers and other stakeholders.

Planning for Directlink's end of life has been considered and we propose an allowance associated with removal of equipment and rehabilitation of land for the decommissioning of Directlink in the longer term. This ensures current consumers, rather than future consumers, pay for the asset as well as reducing bill shock.

Affordability – Our objective is to manage Directlink in an economically efficient way that ensures safety, compliance and reliability is maintained. We remain focused on affordability and will continue to look for opportunities to limit our proposed expenditure where possible. We have elected to defer or cancel a number of projects, for example, implementation of a master controller, installation of solar panels and batteries at the converter stations and proactive rectification of potential future landslip sites. We will also adapt our spares strategy to re-use and recondition items where practical.

Our proposed revenue

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Our proposed revenue

The Revenue that Directlink needs to maintain a reliable transmission link between Queensland and New South Wales for the 2025-30 period is set out below. Adjusting for the impact of inflation, the required revenue is above the maximum allowed revenue for the current period 2020-25.

$47.7M

Return on capital

Directlink has used the AER's Rate of Return Instrument 2022 to calculate the Rate of Return. Based on the available data, the estimated nominal Weighted Average Cost of Capital (WACC) for the financial year 2025-26 is 6.02%.

$37.7M

Regulatory depreciation

Regulatory depreciation (Return of capital) recovers the outstanding cost of previous investments that Directlink has made to ensure ongoing reliable operation.

$39.5M

Operating expenditure

Directlink's operating activities are focused on delivering safety, security and reliability for the interconnector. We have adopted the AER's preferred method for forecasting operating expenditure the "Base, Step Trend" method.

$0.6M

Revenue adjustments

Revenue adjustments account for penalties and rewards earned though incentive arrangements.

$3.4M

Net tax allowance

Taxation is calculated based of forecast revenue, operating expenditure tax depreciation and tax rates.

$127.8M

Smoothed maximum allowed revenue (2025-30)

The smoothed revenue is a forecast of the revenue expected to be earned by Directlink for the period, and as the name suggests, its purpose is to smooth revenue year on year.

$88.1M

Maximum allowed revenue (2020-25)

The maximum allowed revenue proposed for the 2025-30 is 44.9% above the maximum allowed revenue for the current 2025-25 regulatory period.

Compared to the 2020-25 period, revenue for the 2025-30 period is proposed to increase by $35.1 million, key drivers include:

Return on capital

$10.4M

driven by higher interest rates and inflation

Depreciation

$12.4M

driven by the remaining life of the asset base of 16 years

Operating expenditure

$3.6M

driven by historic increases in cost

End of life costs

$4.7M

Incentives

$3.2M

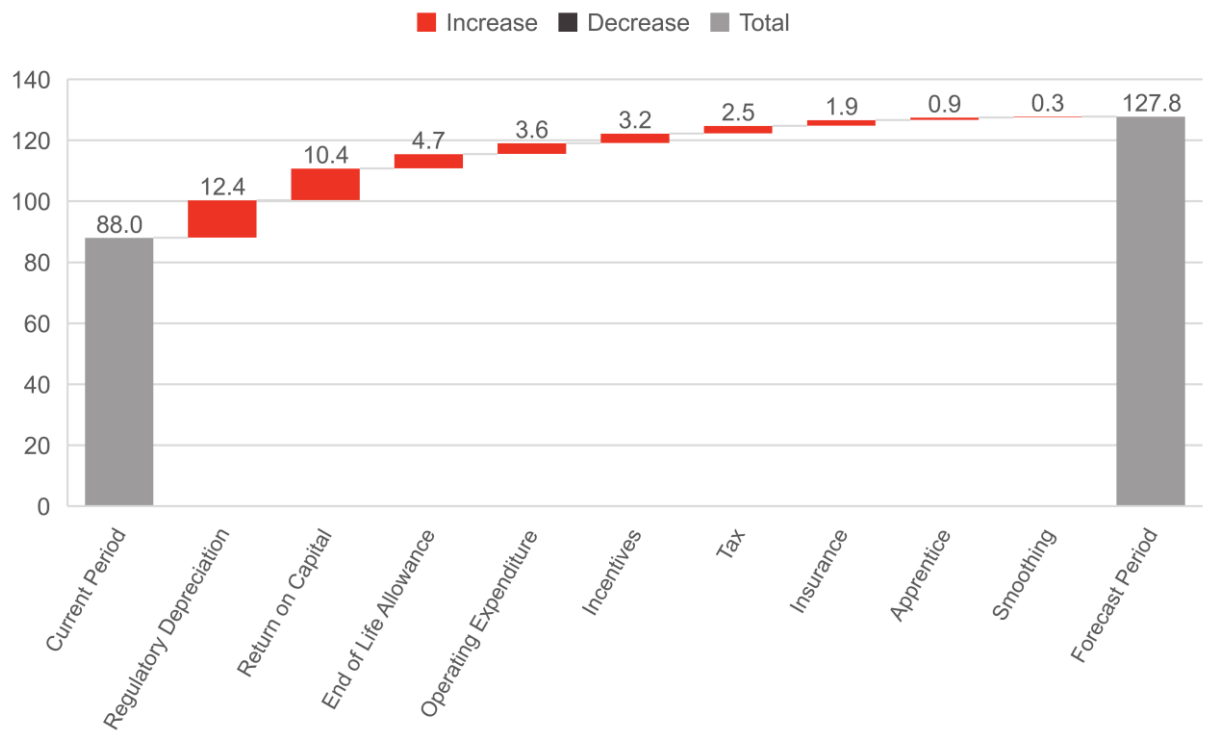
driven by penalties this period being lower than last period

Insurance premiums and apprentice

$2.8M

driven by tightening insurance markets and long term need for qualified labour

Drivers of changes in revenue between 2020-25 and 2025-30



Impacts of our Proposal

~$25.6M
Average annual smoothed revenue proposed for the 2025 to 2030 period

10.19%
Annual average change in revenue

0.10%
of NSW customers' total electricity bills

$1.29
Increase in the annual electricity bill for a typical residential customer by 2029-30 (assuming the AER's 2023-24 Default Market Offer for Ausgrid)

Plan on a page

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Plan on a page

Our 2025-30 Revenue Proposal plan on a page summarises how we propose to deliver on the priority issues highlighted by stakeholders.

Improving safety and protection

$5.0M

To help protect against the increasing risk of break-ins and loss and damage of key assets, we propose to improve security to deter break-ins and improve 24/7 site monitoring. To improve safety, support systems will be installed in high-risk landslip areas.

Asset monitoring

$1.3M

To ensure Directlink continues to operate reliably, general upkeep and maintenance of existing asset management systems is required. A feasibility study will also be undertaken to determine if a master controller should be installed to improve monitoring and reliability performance.

Continuing major maintenance

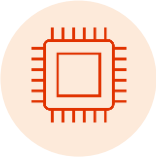
$8.6M

To ensure ongoing safety and compliance of Directlink, we propose to undertake key asset replacements and upgrades including circuit breaker replacement, fire system upgrades, cooling system maintenance, and replacement of major structural components.

Refreshed spares strategy

$12.5M

To help protect supply chain vulnerabilities and ensure the ongoing safe and reliable operation of Directlink, we are updating our spares strategy. Key electrical components have an increasingly long lead time post COVID and some components risk becoming obsolete with limited notice from the manufacturer.



Complete Insulated-Gate Bipolar Transistors (IGBT) upgrade

$6.1M

The IGBT upgrade commenced in 2022 and is due to be completed during 2025/26. The total investment is $25.6M and will ensure this critical infrastructure is operational and there are sufficient spares available for the longer term. This upgrade reduces the risk of prolonged outages.

Planning for end of life

$4.7M

An allowance for end-of-life costs is proposed to cover costs associated with the removal of equipment and rehabilitation of land for decommissioning of Directlink in the longer term. This ensures current consumers, rather than future consumers, pay for the asset.

Expenditure in detail

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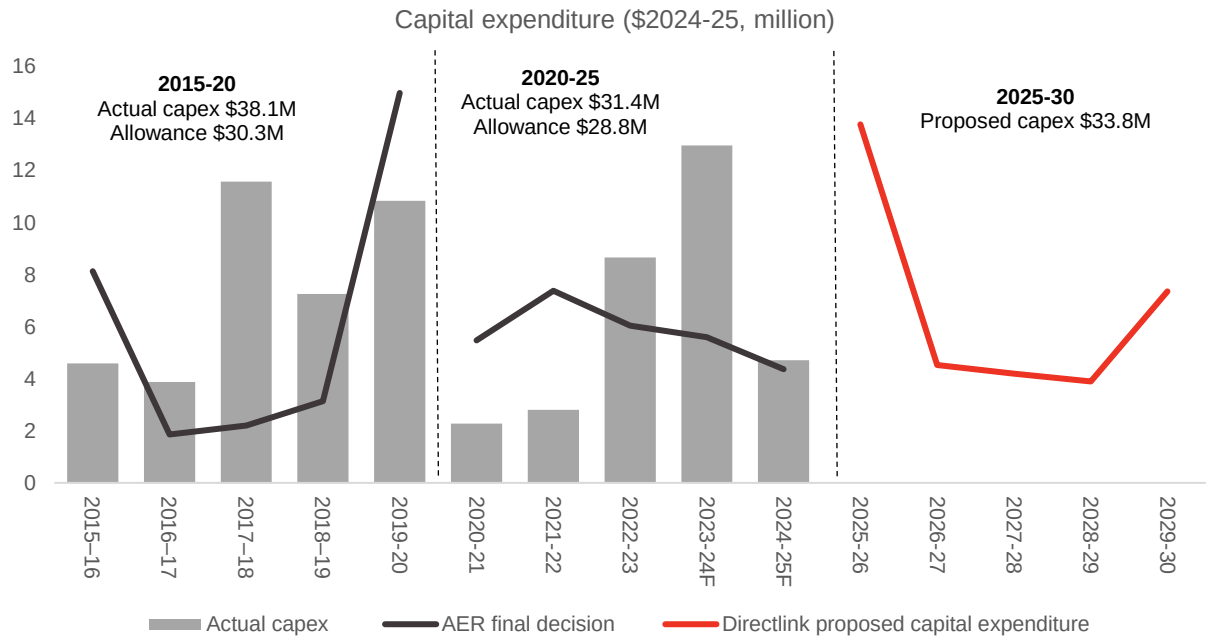
Expenditure in detail

Capital expenditure

As shown in the chart below, Directlink's proposed capital expenditure for 2025 to 2030 is $33.8 million and is in line with actual capital expenditure in previous regulatory periods.



The table below shows that the largest element of the proposed capital expenditure is the spares management program, representing 37 per cent of total capital expenditure.

$2024-25, million	2025-26	2026-27	2027-28	2028-29	2029-30	Total
Safety and Protection	3.7	1.1	0.2	0.0	0.0	5.0
Major Maintenance	1.4	2.0	2.2	2.1	0.9	8.6
Asset Monitoring	0.8	0.2	0.1	0.1	0.1	1.3
Spares Management	1.8	1.2	1.7	1.5	6.2	12.5
IGBTs	6.1	0.0	0.0	0.0	0.0	6.1
Determination costs	**0**	**0**	**0**	**0.1**	**0.1**	**0.3**
Total	**13.8**	**4.5**	**4.2**	**3.9**	**7.4**	**33.8**

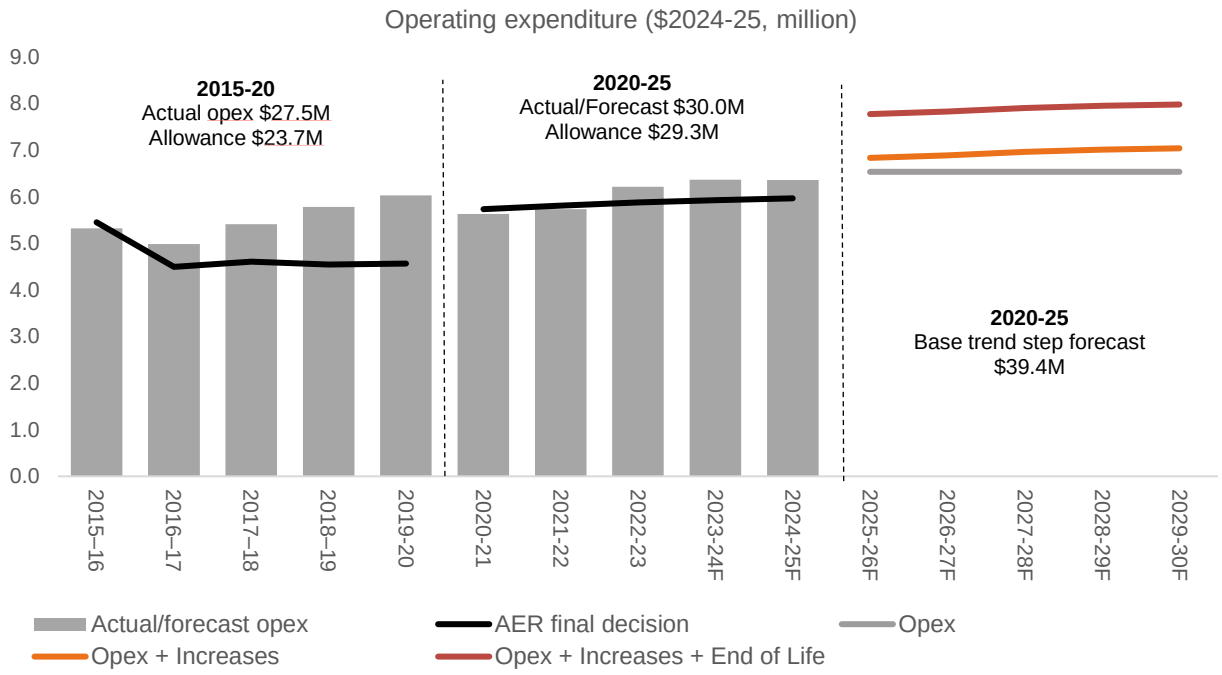
As discussed above, most stakeholders were largely risk-averse and prioritised reliability, supporting Directlink's preference to buy enough spares to:

- Cover timeframes for assets with long lead times; and
- Reach end of life for assets with a high risk of obsolescence.

Directlink will continue to develop its spare strategy with stakeholders through to the AER's Draft Determination.

Operating Expenditure

Directlink's proposed operating expenditure for 2025 to 2030 is $39.4 million and is higher than actual operating expenditure in previous regulatory periods.



Directlink has used the AER's preferred method to forecast operating expenditure, known as the "Base, Step, Trend" method. The results of this method are shown in the table below.

	2022-23	2025-26	2026-27	2027-28	2028-29	2029-30
Base Year	5.4					
Base year adjustment and real price changes	0.1	0.2	0.2	0.2	0.3	0.3
Growth	-	-	-	-	-	-
Productivity	-	-	-	-	-	-
Step changes	-	0.2	0.2	0.2	0.2	0.2
Base-step-trend	**5.6**	**5.8**	**5.8**	**5.8**	**5.9**	**5.9**
Insurance	0.9	1.0	1.0	1.1	1.1	1.1
End of Life costs	-	0.9	0.9	0.9	0.9	0.9
Debt Raising Cost	0.1	0.1	0.1	0.1	0.1	0.1
Total	**6.6**	**7.8**	**7.8**	**7.9**	**8.0**	**8.0**

Directlink has elected the 2022-23 financial year as the base year and applied:

- Trend change of 1.2 percent to account for increase in labour costs above inflation.
- Step change to incorporate an apprenticeship program within Directlink.
- Category specific forecasts related to **insurance** with increases driven by tightening market conditions and responses to the increasing frequency and severity of extreme weather events, and **end of life costs** that sets aside an annual amount to cover the future costs of restoration and rectification.

Other matters

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Other matters

Revenue adjustments arising from incentive schemes

Incentives schemes were applied to Directlink during 2020-25 period. The table below provides an overview of two schemes that applied and our proposed approach to the calculation of rewards or penalties. Directlink is proposing the exclusion of IGBT expenditures and allowances from the calculation of the CESS due to the change in circumstances of IGBT maintenance agreements (discussed earlier).

Incentive scheme	Efficiency Benefits Sharing Scheme (EBSS)	Capital Expenditure Sharing Scheme (CESS)
How does it work?	The EBSS provides financial rewards for network service providers whose operating expenditure becomes more efficient and financial penalties for those that become less efficient.	The CESS provides financial rewards for network service providers whose capital expenditure becomes more efficient and financial penalties for those that become less efficient.
How do customers benefit?	Consumers benefit from improved efficiency through lower regulated prices.	Consumers benefit from improved efficiency through lower regulated prices.
Our proposed outcomes	Proposed EBSS penalty of **$560k**	Proposed CESS penalty of **$36k** (excluding IGBT capital expenditure)

Cost pass through

The regulatory framework recognises that there are unpredictable events which may incur high costs to the service provider. As informed by the current insurance market, we propose the following pass-through events for the 2025-30 period:

Insurance Coverage Event

Insurance credit risk event

Natural Disaster Event

Terrorism event

Each of the above pass-through events has been nominated with the aim of promoting prudent and efficient risk mitigation so that we can safely, reliably and securely supply to our customers as far as practicably possible.

Risks and benefits of our proposal

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Risks and benefits of our proposal

How do customers benefit from our proposal?



Reliability	***Security***	***Planning for end of life***
Our proposal contains a **$33.8 million** investment program designed to maintain the reliability of Directlink in an economically responsible way. This will ensure Directlink continues to transfer electricity where and when it is needed and to provide voltage support for customers in: • Northern NSW, specifically Lismore and Armidale regions • Queensland, especially during shoulder seasons	Our proposal will invest **$3 million** in system security by safeguarding critical infrastructure against threats in line with obligations under the Security of Critical Infrastructure framework. We have done this in an efficient and proportionate way which will enhance ongoing security for customers.	Directlink will reach the end of its economic life and be fully depreciated in 2041/42. **$4.7 million** is proposed to be set aside to cover the cost of restoration and rectification works at the end of the life of Directlink. Amounts set aside will be less than the amount that will be required to be charged to customers in 2041/42.

What are the risks for customers?



Emerging and future challenges	***Affordability***	***Spares strategy***
Several emerging and future challenges were highlighted at the Directlink co-creation workshop. Our proposal seeks to address these challenges, as described earlier. The pace of how quickly these challenges might impact Directlink may be slower or faster than anticipated. This means customers, may be exposed to a decline in reliability or pay more than is forecast for future Directlink services.	We know cost of living pressures are significant for many customers in QLD and NSW, and recognise the increases proposed for 2025 to 2030 are substantial in revenue terms. In recognition of these cost pressures, we have elected to defer or cancel a number of projects, for example: • Master controller • Solar panels and batteries • Proactive rectification of potential future landslip sites • Re-use and reconditioning of items as part of the spares strategy.	Our approach to spares management needs careful consideration given it is a critical issue and risk for the next regulatory period and beyond. As a result, work on the spares strategy will continue through to the AER's Draft Determination Balancing all of the risks involves conducting risk assessments, considering the age and type of equipment, industry standards and regulations, and customer expectations.

Glossary

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Glossary

AC	Alternating current
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
Capex	Capital Expenditure
CESS	Capital Expenditure Sharing Scheme
DC	Direct Current
EBSS	Efficiency Benefits Sharing Scheme
ISP	Integrated System Plan
MW	Megawatt
NEM	National Electricity Market
NSW	New South Wales
Opex	Operating Expenditure
QLD	Queensland
STPIS	Service Target Performance Incentive Scheme

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