

Powerlink's Customer Panel meeting

22 OCTOBER 2021

Agenda

- Input on Powerlink's 2023-27 Revised Revenue Proposal positions
- Review of asset reinvestment approach
- Afternoon tea break
- Proposed security and resilience regulations for critical infrastructure
- Powerlink inputs into Integrated System Plan (ISP)
- AEMO ISP Consumer Panel update
- Customer centric innovation
- Better Practice Landholder & Community Engagement Guide and Community Engagement Strategy
- Customer Panel planning for 2022





Input on Powerlink's
2023-27 Revised Revenue
Proposal positions

Chief Executive, Paul Simshauser Manager Revenue Reset, Matthew Myers

Purpose

To inform our Customer Panel of the Australian Energy Regulator's (AER's) Draft Decision outcomes and engage on our Revised Revenue Proposal positions.

- On 30 September 2021, the AER published its Draft Decision on our 2023-27 Revenue Proposal. We will lodge our Revised Revenue Proposal with the AER by 3 December 2021.
- This slide pack covers:
 - Powerlink's strategic focus and where to next for our business;
 - overview of the AER's Draft Decision and comparison with our Revenue Proposal; and
 - key preliminary positions for our Revised Revenue Proposal.
- This slide pack should be considered alongside:
 - the AER's Draft Decision;
 - our Revised Revenue Proposal Preliminary Positions document, which was included in the pre-reading material for our October 2021 Customer Panel meeting; and
 - our Overview of the AER's Draft Decision.

Note: figures in this presentation are in \$ real 2021/22 unless otherwise specified.



Regulatory milestones





Strategic focus and where to next for the business



Our strategic focus

Our purpose is to connect Queenslanders to a world-class energy future.

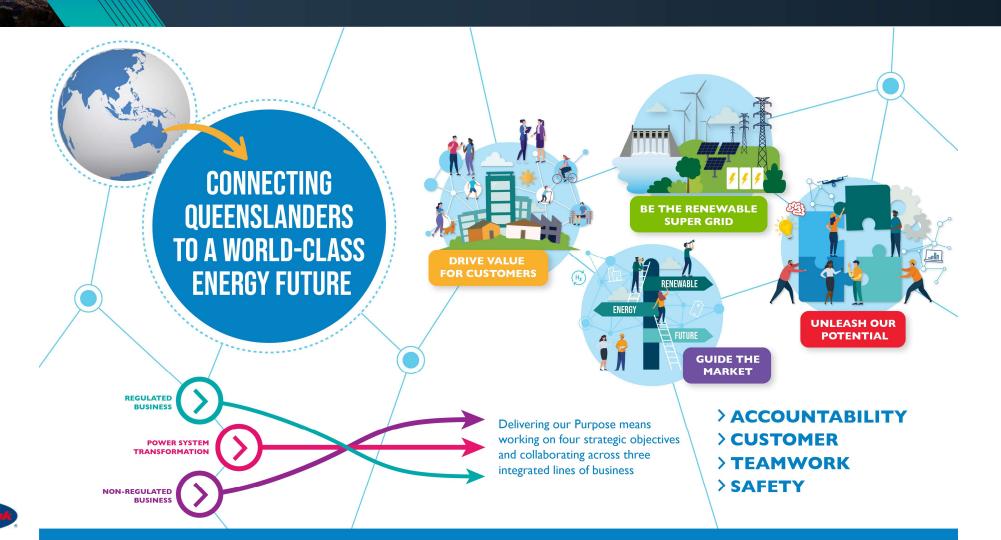
In our regulated business, this means:

- connect Queensland communities to safe, secure, reliable and affordable electricity services;
- meet and manage electricity demand through our regulated network; and
- drive value for customers.

Our Revenue Proposal and capable of acceptance approach reflect these objectives.



Where to next for our business





AER Draft Decision Overview



AER's Draft Decision Overview

The AER's view is our Revenue Proposal is capable of acceptance and it has accepted all major aspects.

- Accepted all major elements of our Revenue Proposal, including our capital and operating expenditure forecasts, Proposed Pricing Methodology and key financials (with updates and minor corrections).
- Did not accept elements of our Service Target Performance Incentive Scheme (STPIS) or our request not to apply the Demand Management Innovation Allowance Mechanism (DMIAM).
- In terms of consumer engagement, the AER stated that:
 - we put forward a well-informed proposal, underpinned by significant consumer engagement;
 - our self-assessment of consumer engagement reflected positively on Powerlink as it invited open and transparent evaluations of our engagement approach; and
 - it is confident that Powerlink is committed to putting consumers at the centre of its business and ensuring stakeholders' views are reflected.



Revenue Proposal and Draft Decision comparison

AER view is our Revenue Proposal is capable of acceptance. There is less than a 3% difference between our Revenue Proposal Maximum Allowed Revenue and the AER's Draft Decision.

		80	\$%			
	Capital Expenditure	Operating Expenditure		Regulatory Asset Base	Maximum Allowed Revenue	Electricity prices
Revenue Proposal	\$863.9m	\$1,046.4m	4.44%	\$6,958.4m	\$3,333.9m	11% decrease
Draft Decision	\$863.9m	\$1,046.4m	4.65%	\$6,983.4m	\$3,414.9m	9% decrease
Difference	Nil	Nil	↑0.21%	↑\$25m (0.4%)	↑\$81m (2.4%)	↑2%



Capital expenditure – AER review

The AER review was targeted at reinvestment capex, but touched all aspects of the capex forecast plus our one proposed contingent project.

- Three formal Information Requests related to capex.
 - 21 questions; and
 - 138 sub-questions often the same questions related to multiple projects
- Several more hours of ad-hoc meetings to clarify specific aspects of our transmission line reinvestment approach and repex modelling.



Key Revised Revenue Proposal Positions



Key Revised Revenue Proposal Positions

We welcome input from our Customer Panel on all key positions prior to lodgement of our Revised Revenue Proposal.

- We propose to accept key elements of the Draft Decision, with minor updates (e.g. for inflation) and adjustments.
- Focus of discussion today is on:
 - inflation background as to why this is driving some updates;
 - capital expenditure and operating expenditure;
 - update on a potential further Regulatory Asset Base (RAB) transfer;
 - our Revised Proposed Pricing Methodology; and
 - the Demand Management Innovation Allowance Mechanism (DMIAM)
- We also welcome input on any other preliminary positions outlined in the pre-reading sent to the Customer Panel.

Note: all forecast figures are indicative and may change (e.g. to reflect latest inflation after release of the latest RBA Statement on Monetary Policy in November 2021).



Background – 2020/21 and 2021/22 inflation

- For our Revenue Proposal, we included estimates of inflation for 2020/21 and 2021/22 based on the RBA's forecasts.
- The actual inflation outcome for 2020/21 and the RBA's latest forecast inflation for 2021/22 are materially different to these assumptions, shown below.
- We flagged this issue with the AER and our Revenue Proposal Reference Group (RPRG) in August 2021.

Timing of inflation assumption	2017/18	2018/19	2019/20	2020/21	2021/22
Revenue Proposal	2.08%	1.59%	-0.35%	2.25%	1.25%
Revised Revenue Proposal (indicative)*	2.08%	1.59%	-0.35%	3.85%	1.50%
Difference – RP to RRP	0%	0%	0%	1.60%	0.25%

^{*} The Revised Revenue Proposal (indicative) figures are currently the same as the AER's Draft Decision. These figures will be updated after the RBA's November Statement on Monetary Policy is published.

The AER does not typically update our forecasts of capital and operating expenditure for changes to inputs at the time of
the Draft Decision. Therefore, given the material difference, we propose to apply an update in our Revised Revenue
Proposal to capital and operating expenditure.



Revised capital expenditure forecast

Our revised capital expenditure forecast is \$876.8m.

We accept the AER's Draft Decision on capital expenditure, updated for inflation.

	2022/23	2023/24	2024/25	2025/26	2026/27	Total
Revenue Proposal*	190.9	209.4	157.2	152.4	154.0	863.9
Revised Revenue Proposal	193.1	212.5	159.8	154.8	156.5	876.8
Difference – RP to RRP	2.2	3.1	2.6	2.4	2.5	12.9 (1.5%)

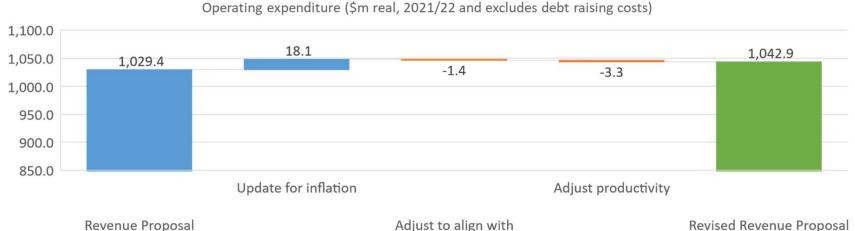
^{*} Note: the AER accepted our Revenue Proposal capital expenditure forecast. Therefore, the capital expenditure figures in the Draft Decision are identical to these figures for the Revenue Proposal.



Revised operating expenditure forecast

Our revised operating expenditure forecast is \$1,042.9m (excluding debt raising costs).

- We accept the AER's operating expenditure forecasting approach outlined in its Draft Decision. We also accept the AER's Draft Decision on debt raising costs.
- We propose to update our Revenue Proposal forecast for inflation, apply adjustments to align with the AER's Draft Decision forecasting approach and apply productivity of 0.6% (0.1% higher than our Revenue Proposal) to ensure we maintain our no real growth target. The effect of each of these steps is shown in the chart below.
- We have maintained our position not to seek any step changes.





Potential Regulatory Asset Base transfer

We remain in discussions with the AER about a potential further transfer of assets into our Regulatory Asset Base (RAB).

- In its Draft Decision, the AER flagged that it is seeking additional information from Powerlink about the use of some of our assets and will make any necessary adjustments in its Final Decision.
- This matter is being addressed with the AER on a confidential basis.



Revised Proposal Pricing Methodology

The AER accepted our Proposed Pricing Methodology. We plan to propose a minor amendment.

- We proposed one key change and several minor amendments in our Proposed Pricing Methodology in January 2021.
- Following the submission of our Proposed Pricing Methodology, the Australian Energy Market Commission (AEMC) made its Dedicated Connection Assets (DCA) Rule change Final Determination in July 2021.
- This Rule change clarified how assets should be treated for the purposes of calculating annual prescribed transmission prices and that settlements residues that accrue on DCAs should be allocated directly to the owner of the DCA.
- To clarify how pricing arrangements will operate as a result of this Rule change, we propose to include a minor amendment (and consequential changes to reflect the new Rules) to the calculation of non-locational charges in our Revised Proposed Pricing Methodology.
- The amendment is to Section 6.8.3.2 of the Revised Proposed Pricing Methodology and is shown below.
 - by adding or subtracting any remaining settlements residue (not being settlements residue referred to in the determination of the locational component or settlements residue that accrue on a designated network asset due to boundary point loss factors, but otherwise including the portion of settlements residue due to intra-regional loss factors) which is expected to be distributed or recovered (as the case may be) to or from the TNSP in accordance with clause 3.6.5(a); and



Customer Panel discussion

What are your views on our preliminary Revised Revenue Proposal positions?

Do you have any questions or input on matters not directly covered in our session today?

As a Customer Panel, are you open to providing a Statement on Capable of Acceptance for inclusion in our Revised Revenue Proposal?





Demand Management Innovation Allowance Mechanism

- We have proposed to empower our Customer Panel to make a decision on whether we should seek to apply the Demand Management Innovation Allowance Mechanism (DMIAM) in our Revised Revenue Proposal.
- Customer Panel members to outline their views and decision, for discussion and response by Powerlink.





Review of asset reinvestment approach

Executive General Manager Network & Business Development, Stewart Bell

Review scope

- AER considers Powerlink's current models are well developed and generally provide a reasonable assessment of the expected benefits of the proposed investment.
- The AER identified areas for further improvement in the repex asset management approach.
- Review is an opportunity for continuous improvement to deliver further benefits for customers as part of our business as usual approach.

Scope

- The detailed scope of the review is still to be determined. Will need to consider opex and capex trade-offs and the operating environment in Queensland.
- Potential areas include:
 - Role of deterministic criteria in an economic framework
 - Appropriate management of input quantity limits (e.g. skilled workers)
 - How an economic risk-based framework informs network reinvestment asset decisions



Timing and engagement approach

Timing

Aim is to finalise review scope in early 2022, with review to commence shortly after.

Engagement approach

- Intention is to engage at 'Involve' level of the IAP2 Spectrum with customers and the AER both on the scope and delivery of the review.
- It represents a further opportunity for customers to help shape our asset reinvestment approach in the future.

How do we best involve customers in the review?







Proposed security and resilience regulations for critical infrastructure

Manager Resilience and Security Risk, Dion Mikkelsen

Background

Why

- Shared responsibility between government and owners/operators.
- Increase in the frequency and scale of threats to critical infrastructure (CI).

Approach

- Amend Security of Critical Infrastructure Act to add co-regulation framework.
 - Entities must have a formal "all hazards" risk management program.
 - Sector-specific rules provide the framework for mitigating risks.
 - Incident reporting obligations and government assistance measures.

Outcomes

- Assurance that CI is being managed in a secure and resilient manner.
- Drive an overall uplift across all CI and within each CI sector.



Alignment



Self-regulation approach

- · Security and resilience risk management is part of 'business as usual'.
- Informed by risk appetite and risk management objectives, following industry norms where appropriate and seek to balance cost with realised benefits.



Range of Possible Rules

Guiding

Enabling and supporting an holistic, risk-based approach specific to each sector.

Risk-based

Prescriptive

Government-led determination of risk

appetite and defined risk management

actions (controls).

Generalised guidance only, not specific to particular threats, risk or industries.

- Defines a minimum standard.
- Unlikely to drive uplift or give assurance.
- · Low level of consistency across entities.
- Lightest touch by government.

- Promotes risk-informed decisions.
- Improves decision making sophistication.
- Requires collaboration and information sharing between government and entities.

- Prescribes 'solutions' for risks.
- Compliance rather than risk focus.
- · Broad-brush risk minimisation over cost.
- Government directs rather than collaborates.



Seeking Customer Panel Input

- Powerlink will need to comply with the regulations.
- Commonwealth Government is trying to move quickly.
- Powerlink and industry are engaged in developing the rules.

- Need to continue to strike the right balance in managing risks.
- How do we best manage potential gap(s) between Powerlink's planned approach to security and resilience versus the requirements of regulations?





Powerlink inputs into Integrated System Plan

General Manager Network Portfolio, Gerard Nicolas

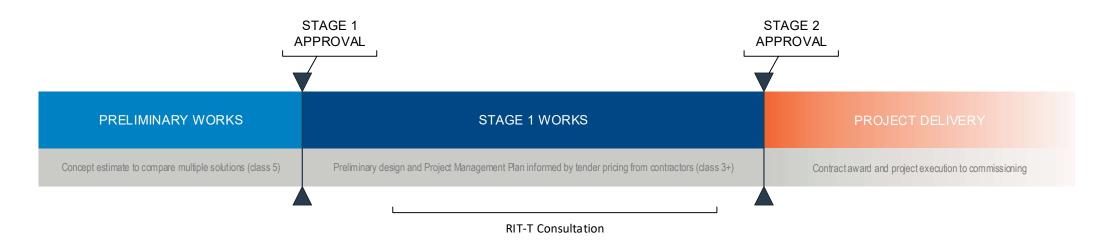
Integrated System Plan inputs

- Powerlink did not provide direct input to the unit rates used in the AEMO cost database for the Integrated System Plan (ISP).
- GHD, who provided input to the AEMO cost database, also supplied comparison unit rates to validate Powerlink's unit costs used within our 2023-27 Revenue Proposal.
- Powerlink provided high-level estimates as preparatory activities for the QNI upgrade, CQ-SQ Transmission Link and the Gladstone Grid Reinforcement projects.
 - AEMO assessed these estimates against estimates generated from the AEMO cost database and found them to be comparable.
- The final cost estimate and economic assessment for any ISP project will be based upon a detailed 'bottom-up' estimate by the TNSP, not derived from AEMO's cost database.
 - provides for a final check of economic benefits and efficient investment timing prior to commitment.

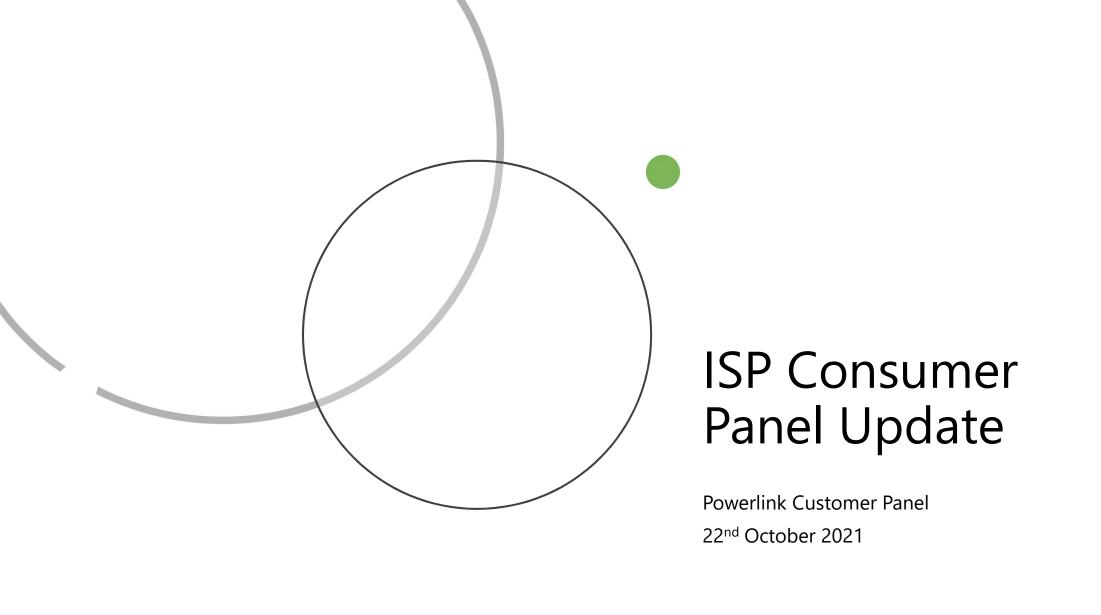


Powerlink's two-stage approval process

- Powerlink has developed a two-stage approval process to provide for:
 - RIT-T pricing consistently against a class 3 estimate
 - firm external pricing + resource and outage commitments prior to final investment decision.





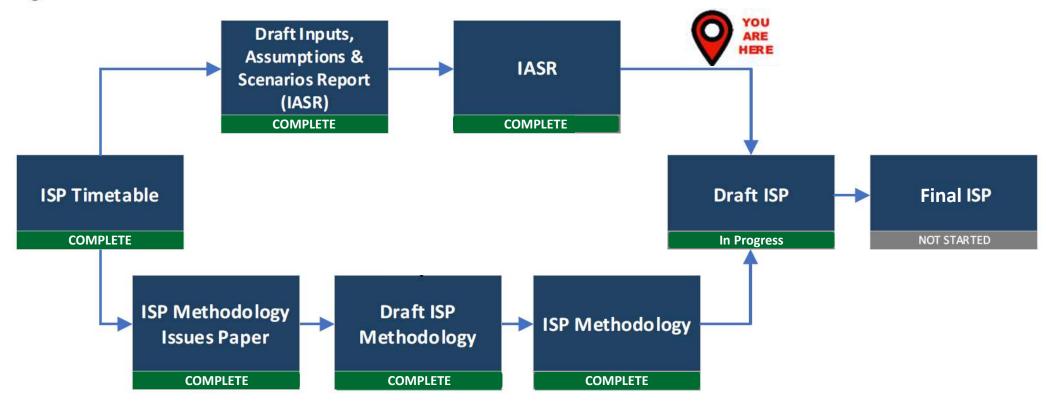


About Us

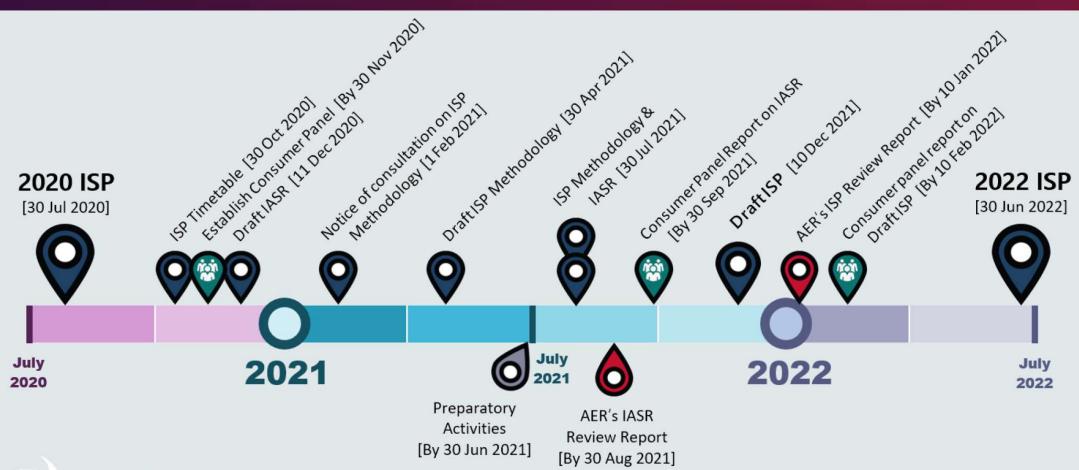
- ISP Consumer Panel established in November 2020 under the NER, part of the ISP Oversight Framework
- We promote the consumer interest are not a substitute for consumers' engagement with the ISP
- We have two main reports to write and maintain a focus on both process AND content
- In terms of content, we maintain a dual focus on <u>managing</u> uncertainty as well as <u>improving the accuracy of forecasts</u>
- AEMO published the <u>Inputs, Assumptions and Scenarios Report</u>
 (IASR) on 31 July and we published <u>our report on 30 September 2021</u>

2022 ISP Progress

Figure 2 Parallel ISP consultations



2022 ISP timeline

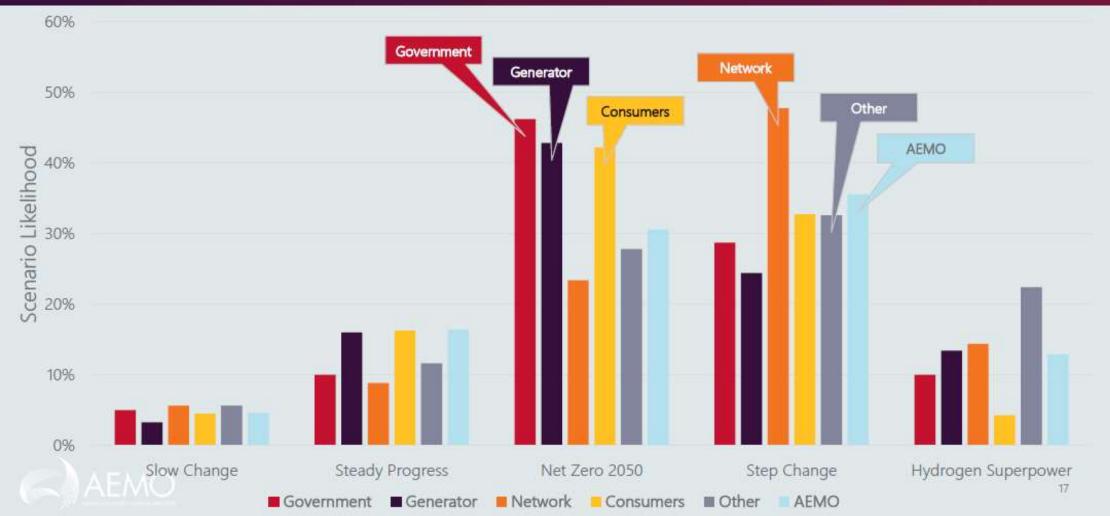




The NEM in 2040: a snapshot

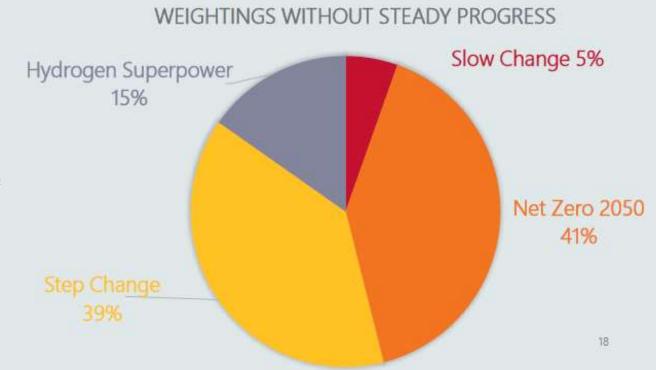
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DEMAND	Slow Change	Steady Progress	Net Zero 2050	Step Change	Hydrogen Superpower
Electrification	ĕ			******	á ⊑
- % of road transport that is EV by 2040	22%	44%	52%	58%	76%
- % of residential EVs still relying on convenience charging by 2040	68%	61%	57%	47%	40%
- Industrial electrification by 2040	-25 TWh	8 TWh	32 TWh	45 TWh	66 TWh
- Residential electrification by 2040	0 TWh	0 TWh	6 TWh	9 TWh	10 TWh
Energy efficiency savings by 2040	16 TWh	25 TWh	30 TWh	44 TWh	44 TWh
Underlying Consumption					
- NEM underlying consumption by 2040	184 TWh	245 TWh	276 TWh	279 TWh	329 TWh
- H2 consumption (domestic), 2040	0 TWh	0 TWh	2 TWh	15 TWh	64 TWh
- H2 consumption (export), including green steel, 2040	0 TWh	0 TWh	0 TWh	0 TWh	221 TWh
- Total underlying consumption by 2040	184 TWh	245 TWh	278 TWh	294 TWh	614 TWh
SUPPLY					
Distributed PV Generation	47 TWh	51 TWh	61 TWh	66 TWh	83 TWh
% of household daily consumption potential stored in batteries	4%	12%	17%	32%	35%
% of underlying consumption met by DER by 2040	26%	21%	22%	22%	13%
Estimate of % coal in generation mix by 2040	50%	20-25%	15-20%	5%	0%
Estimate of NEM emissions production by 2040 (MT CO2-e)	TBD	TBD	55 (~40% of 2020 NEM emissions)	(~7% of 2020 NEM emissions)	(~1% of 2020 NEM emissions)

Scenario likelihoods by cohort



COP26 and impact on scenario weightings

- AEMO will re-assess appropriateness of scenario weightings after COP26 in Glasgow
- If a net zero 2050 commitment is made by Australia then AEMO proposes to:
 - Effectively remove (set to 0%) the Steady Progress scenario, and:
 - potentially reconvene the Delphi Panel to reconsider the remaining weightings, or
 - adjust the four scenario weights in proportion, as shown.





IASR - 4 Strategic Recommendations

A: Further expand AEMO's Stakeholder Engagement Capability

- Resources to build AEMO's capacity for engagement with KPIs and accountability within AEMO.
- Co-design a more comprehensive stakeholder engagement plan for the 2024 ISP.
- Develop and maintain a stakeholder management system to regularly assess stakeholder needs and interests and identify gaps in stakeholder representation and participation.
- Social research to better understand consumer attitudes and perceptions about the future energy market.

B: Focus efforts on the inputs and assumptions that are most material to the consumer interest and have the most uncertainty

- Government policies, gas prices, transmission costs, discount rates, decarbonisation and electrification of other sectors, hydrogen and Integration of distribution network forecasts.
- Manage the complexity and volume of information to foster wider engagement.

IASR - 4 Strategic Recommendations

C: Elevate the status of the scenario work, engage on it earlier and more widely and separate it from the ongoing forecasting and modelling work

- Engage early on scenarios for the 2024 ISP and use this process as an entry point for a wider group of stakeholders.
- AEMO appoint the next Consumer Panel before the scenario development process commences.

D: Focus engagement on how uncertainty is managed prior to publishing the Draft and Final 2022 ISP

- Encourage governments to work closely with AEMO and provide as much detail as possible before draft ISP.
- Keep stakeholders appraised of themes emerging from results as the modelling unfolds note consultation on the Draft ISP will be over Christmas/New Year.
- Operation of the Delphi Panel process to provide input into scenario weights.
- More transparency on the proposed sensitivities or 'event-driven scenarios'.

Comments, Questions ...?

Thank you!



Customer centric innovation

Acting General Manager Strategy, Faith Byers

Innovation Framework

- In 2019, Powerlink adopted Inventium's Innovation Framework The framework is based on decades of scientific research into the most important drivers of organisational innovation outcomes.
- The framework is a maturity model and represents three levels of innovation maturity: Foundation, Graduation and Optimisation.
- Powerlink has been focused on establishing the foundations for growth in organisational innovation capability to enable better outcomes for our customers.
- Customer centricity is seen as an important component of our evolving innovation maturity.

Quantifying your

ptimisation

0



Measurement Communication

Turning innovation into a habit and keeping it top of mind.



Positioning

Being a thought leader on innovation.



Resources

innovation efforts

Allocation of time. money, and people to drive innovation.



Strategy

Aligning innovation with organisational strategy.



Roles

Driving motivation through job definition and focus.





Process

The pathway from mission to market



Climate

Employee perceptions of the organisation



Capability

Skill building for innovation



Leadership

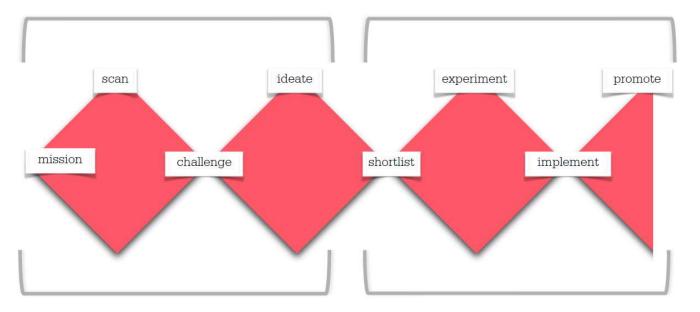
People



Powerlink's innovation process

Customers can add value to the innovation process in the following ways:

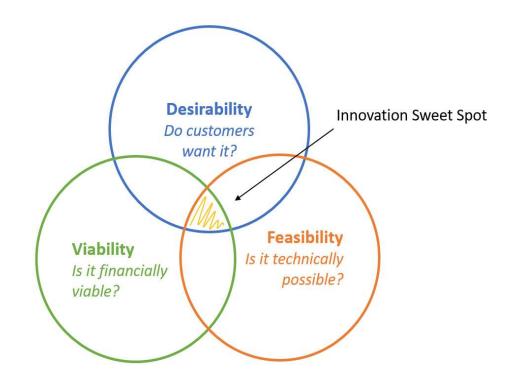
- Uncovering opportunities (mission/scan phase)
- Generating ideas (ideate phase)
- Experimenting/testing ideas (experiment phase)





Seeking Customer Panel input

- What types of engagement may be appropriate for our Customer Panel collectively to help inform Powerlink's approach to innovation?
- How would panel members like to engage in innovation as directly connected customers, or consumer advocates, rather than just via the Customer Panel?







Engagement initiatives and Customer Panel planning for 2022

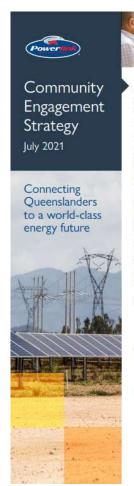
General Manager Communications,
Customer & Engagement, Gerard Reilly

With the sheer breadth of change that comes with the new energy future in Queensland, meeting the needs and expectations of the communities we work in is more important than ever.

We're keen to see communities sharing in the benefits of the new energy future. We know building strong, positive relationships across the life of our network will set us all up for future success.

Engagement initiatives





A message from the Chief Executive

With the sheer breadth of change that comes with the new energy future here in Queenstand, meeting the needs and expectations of the communities we work in is more important than ever. We have always held a strong lever that engaging with local communities is an important part of providing our electricity transmission services safely, reliably and cost effectively. This is front and centre as we look at the challenges and coportunities of the future.

Our infrastructure stays in service for up to 50 years, and partnering with all of our host communities from Cairns down to the New South Wales border is important to building relationships based on respect and trust. Most importantly, we are focusing or partnering that delivers local community benefits for the longer term.

This strategy outlines our community engagement planning approach and the principles we will like up to – from operating and maintaining our existing network, through to be planning and building the network of the future. We know some of the goals we've set for ourselves here are apprintional, and will involve hard work and focus. We're up for the challenge with your help and quadrace.

We are keen to see communities sharing in the benefits of our state's new energy future, and we know building strong, positive relationships across the life of our transmission network will set us all up for future success. It's an exciting time to be in energy, and bringing opportunities to the local communities we work in its a fuge part of that.

We look forward to working with you.

Paul Simshauser Chief Executive - Powerlink Oueensland

Who we are















Customer Panel planning for 2022

- We are due to review our Customer Panel Terms of Reference to ensure it reflects the most appropriate focus, scope and mechanics of the panel.
- Areas for consideration:
 - key topics for 2022
 - composition of panel membership:
 - right balance of membership across directly connected customers, consumer advocates and industry associations
 - attract regionally based members
 - Powerlink representatives
 - investigate offering sitting fees.





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