Regulatory Proposal 2022-27
AusNet Services - Transmission

Consumer
Challenge
Panel

Presentation to Pre-determination Conference, 5th August 2021

CCP23
Bev Hughson
David Prins
Mark Henley (Chair)

Recognition of Country

We acknowledge the Traditional Owners of Country throughout Australia, in this situation the owners of the land hosting the Victorian electricity transmission network and the lands on which participants are located.

We recognise the continuing connection to land, waters and culture.

We pay our respects to their Elders past, present and emerging.

Summary – Key Issues

Key issues / themes from CCP23 advice to AER

- Context: Consumer Engagement, improved after slow first half 2020. Post lodgement engagement much better
- **Uncertainty remains: Forecasts, Future Network ➡ pass throughs, Also ISP impacts, DER, Government changes etc.**
- **System Capex: generally OK, major station renewal capex supported, but query some cost assumptions**
- Depreciation: Creating new sub-classes of assets & changing standard asset lives of these raises policy issues & adds $35.6m for each of next 3 reg. period + $29m in 2022-23.
- IT: for future network or BaU?
- **Opex: Base and Step changes OK, but big $ to taxes, rates and fees**
- **Productivity**

(Continuing key Issues highlighted)

AER Draft Determination says:

- AusNet Services (ANS) can recover $2837.8 million this is 2.9 per cent lower than AER allowed for in our 2017–22 final decision and is 1.6 per cent less than that proposed by AusNet Services.
- Opex Step Changes to be updated, including
  - Cyber Security costs
  - Insurance
  - Council rates.
- CAPEX, updates expected from ANS
- Depreciation, new Asset classes for Accelerated D, part accepted
- Other updates expected
  - Demand
  - System Strength
  - Renewable Energy Zone impacts

Key Topics from DD and recent engagement

- System Strength
- Opex (NB Step Changes)
  - Including Local Government rates, Cyber Security, insurance
- Changing market conditions since RP
  - 2022 ISP –Development of AEMO scenarios, Early retirement of coal-fired power plant' Post 2025 market design – transmission pricing
  - Federal and State government policies
  - Uncertainty: including contingent projects, pass throughs, RIT-Ts and adequate scrutiny
  - Future Network, innovation, forecasts, etc
- Incentives:
  - MIC (STPIS)
  - NCIPAP
- Capex
  - Potential for increases in major project capex compared to proposal, NB ICT
  - Estimation of 'risk' allowances for asset replacement projects
  - Direct access by AusNet to Vic Government funding ?
  - Review of labour/contractor costs for capital projects
  - Capex forecasts & actual capex profiles?
  - Identify opportunities for capex productivity improvements
  - Depreciation methodology: NB new asset classes: insulators and instrument transformers
  - Productivity outcomes, and measurement in an ISP world

Consumer Engagement

Focus is on period post initial lodgment.

AusNet Services (ANS) Transmission Engagement

Lodgement timeline right and current timeline below; note Apr-Jul 2021.

Figure 3–1: Customer engagement timeline

Engagement Activities

October 2020
Submitted our Regulatory Proposal to the AER

Nov – Mar 21
Post-lodgement engagement **planning**

CAP Meeting #7

Apr – Jul 21
Feedback and insights **gathering**

AER to publish Draft Decision

Series of Collaborative Workshops

W'shop #1	W'shop #2	W'shop #3	W'shop #4	W'shop #3b	W'shop #5
20 April	**3 May**	**17 May**	**27 May**	**23 June**	**23 July**

August 21
Consolidation of feedback and insights for Revised Proposal

W'shop #6 **6 Aug**

CAP Meeting #8

September 21
Submit our Revised Proposal

Include CAP in BAU Engagement Program

January 22
AER to publish Final Decision

Ongoing bilateral meetings & internal briefings

The AER seeks regulatory submissions on our proposal to inform the Draft Decision

Undertook survey with customer and stakeholders to identify priority areas for workshops.

Develop and published our post-lodgement engagement plan for stakeholder feedback.

Gathered customer and stakeholder feedback on new information that emerged since we submitted our Revenue Proposal that will impact our Revised Proposal.

Consider all customer and stakeholder feedback for inclusion in our Revised Proposal

We will continue to hold quarterly meetings with the CAP as part of our ongoing engagement activities

CCP23 Observations of Engagement

- ANS did not prepare a draft plan or a draft proposal. Having a well-planned post-lodgement engagement program has proved a better option, noting the extraordinary nature of 2020. This was, partly, an outcome of the request for an extension not having being granted.
- Pre-lodgement engagement activities were mainly in the IAP2 spectrum “Inform – Consult” range, with more recent activities more “Collaborate” focussed (with good “inform: where appropriate)
- Engagement has been “work in progress” since initial lodgement, note 6 “Collaborative Workshops” held, at least one more to come. Focus topics have included:
    - System Strength
    - Opex, NB Step Changes
    - Capex aspects
    - Incentive Schemes
- Less or no focus, so far: depreciation, context / business narrative and Draft Determination
- Now AusNet Services need to demonstrate engagement response in Revised Revenue Proposal. (We have good reason to expect that they will)

Element	Possible Assessment – Post Lodgement only	CCP23 Assessment of AusNet Services
Nature of Engagement	Consumers partner in informing the proposal	Limited
	Relevant skill and experience of stakeholders and customers	Yes
	Impartial support provided	Option available,
	Sincerity of Engagement	Yes
	Independence of consumers	Yes
	Multiple channels used for engagement	Collab Workshops
Breadth and Depth	Clear identification of topics and reset relevance	Yes
	Consumers consulted on broad range of topics	Focus on some key topics
	Consumers able to influence topics	Yes
	Consumers encouraged to test assumptions	Yes
	Consumers able to access & resource independent research & engagement	Option available, not requested
Clearly Evidenced Impact	Proposal clearly tied to expressed views of consumers (applied to RRP)	Expected, but too early to say
	High level of business engagement, eg access to CEO / Board	Not evident, NB CEO at 6/8/21
	Responded to consumer views	reference group
	Engagement impacts clearly identified	Yes
	Submissions from consumers show impact consistent with expectations	Can't say yet

Table 3 applied, CCP23 perspective. For Post Lodgement period only

Proof Point	Reasonable opex and capex proposed	Expected, but too early to say
	In line with or lower than historical costs	Probably, but too early to be sure
	In line with or lower than top down analysis	TBA – AER role
Key to Colours	**Dark Green: Strong Application** **Mid Green: Reasonable Application** **Ochre: Not Applicable or Too early** **Raspberry: Application not observed**	

Forecasts

Forecasts

- The AER's draft decision notes that
  - ANS has advised the AER that its revised proposal will use a new updated demand forecast, which may impact on its capex and opex forecasts
  - If ANS' revised proposal is significantly different to its initial proposal, AusNet Services will need to demonstrate that it has consulted with stakeholders, and has their support on any revised expenditure forecasts
  - ANS held a series of workshops, over April to July 2021 (and continuing), to engage with stakeholders prior to the release of its revised proposal
  - ANS' revised proposal will need to demonstrate how it has taken into account the views of stakeholders in framing its revised proposal
- CCP23 has observed workshops with ANS where revised forecasts have been considered – updated capex has been a focus at request of consumers
- We will be looking to see how the revised proposal reflects those discussions, and demonstrates that stakeholder views have been taken into account

OPEX

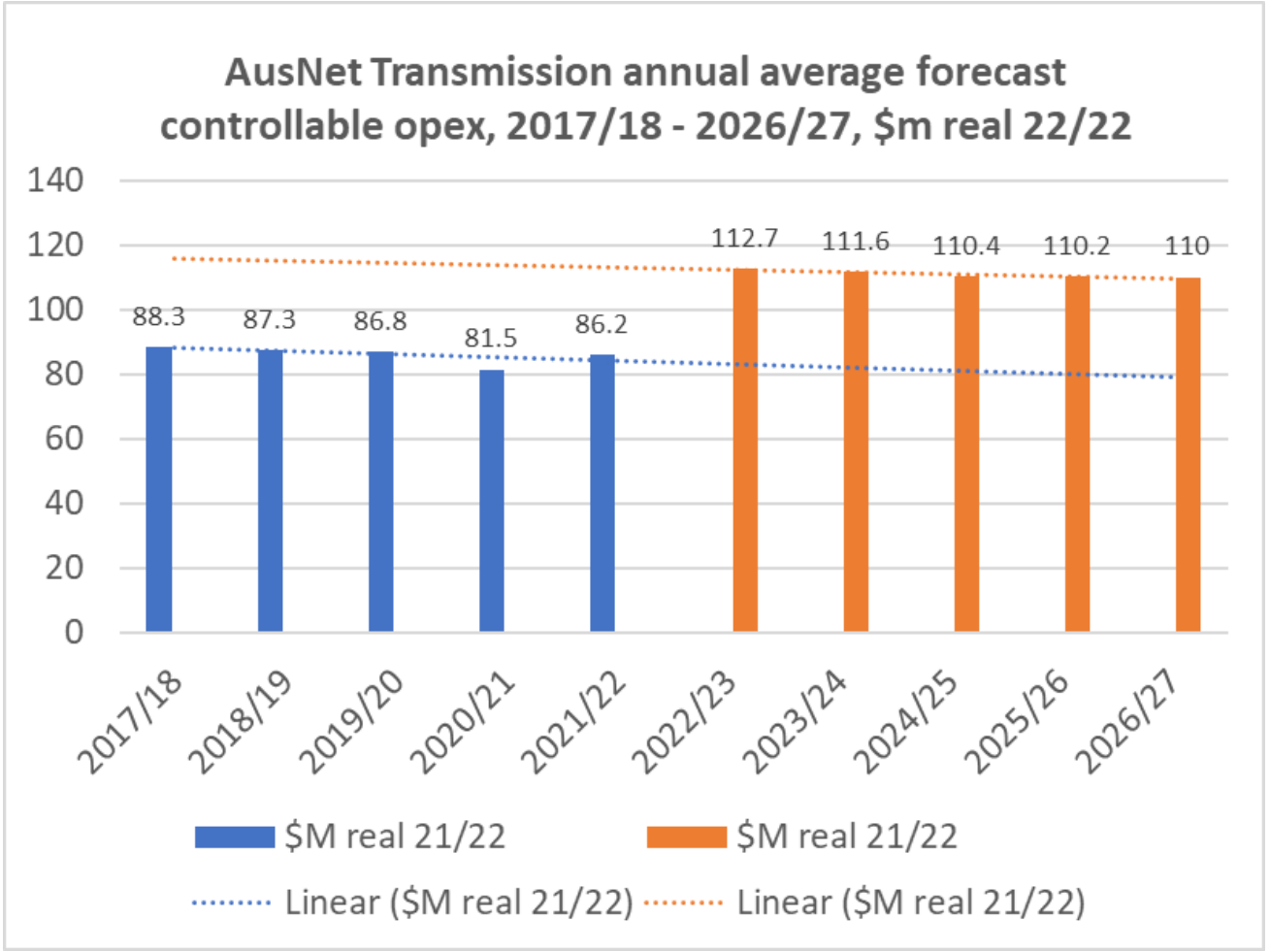
Focus is on Step Changes

Controllable Opex Costs

- 30% increase in opex ‘controllable costs’ from current to next period
- 80% of increase from Step Changes, mainly Council rates

(how controllable is controllable?)

- Remainder mainly from demand changes
- Wage increases: internal labour costs of CPI + 0.8% pa proposed, not accepted by CCP23
- Note: net opex lower than current period since
- lower base year > step change rises



AER Draft Determination

Table 7 Comparison of AusNet Services' proposals and our draft decision on opex ($million, 2021–22)

Opex category	AusNet Services' proposal	AusNet Services' updated proposal	AER draft decision	Difference ($)
Base (reported opex in 2020–21)	407.5	407.5	408.4	0.9
Base year adjustments	0.1	0.1	0.1	0.0
Final year increment	2.5	2.5	2.5	0.0
Trend: Output growth	–	–	–	–
Trend: Real price growth	5.0	5.0	5.5	0.5
Trend: Productivity growth	–3.8	–3.8	–3.8	–0.0
Step changes	108.7	108.7	3.1	–105.5
Category specific forecasts	842.0	894.2	894.2	–
Total opex (excluding debt raising costs)	1362.0	1414.1	1310.1	–104.0
Debt raising costs	8.7	8.7	8.5	–0.2
Total opex (including debt raising costs)	1370.7	1422.8	1318.6	–104.2
Percentage difference to proposal				–7.3%

Step Changes, ANS Summary 23rd July 2021

Status	Step change	Revenue Proposal ($M)	Draft Decision ($M)	Preliminary Revised Proposal Forecast ($M)	Discussion areas
Included in Revenue Proposal	5 minute settlement	0.9	✓0.9	0.9	n/a
	ICT cloud	2.3	✓2.3	2.3	n/a
	Cyber security	27.9	×0	27.9	For your information
	Environmental Protection Act (EPA) Amendments	3.2	×0	3.2*	For your information
	Council rates	71.5	×0	51.9*	For your information
New step changes arising post Revenue Proposal	AEMO's participant fees	n/a	n/a	10.7	**Collaboration**
	Bushfire insurance premiums	n/a	n/a	7.6	**Collaboration**
	Phasor Monitoring Units (PMUs)	n/a	n/a	2.5*	For your information
	State budget tax and levy (new Mental Health Levy and Land Tax increases)	n/a	n/a	7.2	For your information
	Network support	n/a	n/a	0	Validate that our approach reflects feedback from previous workshop
Total		**106**	**3**	**114**	

CCP23 Responses

Step Change	ANS RRP	CCP23 Comment	Legit'mate step?
Cyber Security	27.9	Cost allocation between DNSP, TNSP, Gas? Efficient Cost	Yes
EPA amendments	3.2	Check with EPA re actuals amounts	Yes
Council Rates	51.9	Less that initial costs, confirm final costs. $19.6 improvement	Yes
AEMO fees	10.7	Relationship with separate AEMO costs, separate AER determination	Yes
Bushfire Insurance	7.6	Cost allocation with DNSP, efficient costs, risk share	Yes
Phasor Monitoring Units	2.5	Still looking at this one	Not sure
Vic Govt tax and levy	7.2	Confirm actual costs	Yes
Network Support	0	Accept integrating with existing budget lines	Yes

CCP23 comments re opex step changes

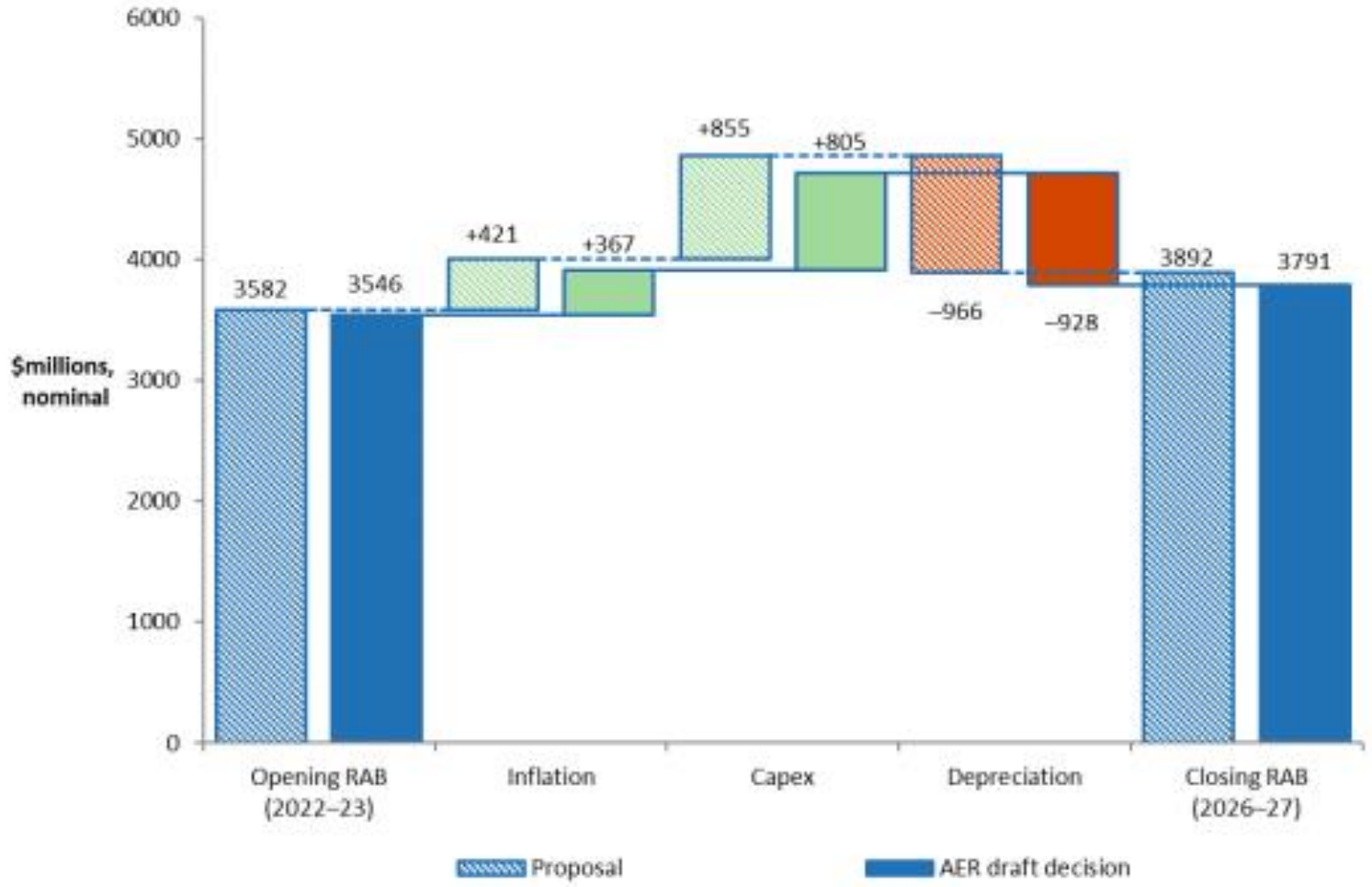
- Revised proposal likely to be higher than initial proposal $106m to $114m
- AER DD step change considerations $3m due to $0 ‘placeholder’ allowances, requesting further information and / or awaiting final costs to be lodged with ANS.
- CCP23 regards all step changes under consideration as legitimate, exogenous costs (possible exception being phasor monitoring units which may be a recurrent cost?)
- Key considerations for AER:
  - How are step change costs for Transmission fairly allocated between the various AusNet Services businesses?
  - Are the proposed costs as efficient as possible?

Regulatory Asset Base (RAB) and Depreciation

Regulatory Asset Base

- AER has made adjustments to the opening RAB for 2022-27 RCP:
  - Adjusted some of the Inputs for the final year (2021-22) asset adjustments
  - The proposed value for the 'growth assets' to be rolled into the opening RAB
  - Updated inputs into the RAB models (RFM) for newer information:
    - Actual CPI for 2020-21
    - Forecast inputs for nominal WACC and depreciation
    - Approved cost pass through
- CCP23 considers these are reasonable adjustments
- The AER determined a closing RAB of $3,791m ($nom), 2.6% lower than ANS proposal
  - Reflect lower opening RAB, expected inflation rate, forecast depreciation and forecast capex.
- CCP23 supports the AER's position – but notes (for reference) that closing RAB does not include 'growth assets'

Figure 2.2 Key drivers of changes in the RAB – AusNet Services' proposal compared with AER's draft decision ($million, nominal)



Source: AER analysis.

Note: Capex is net of forecast disposals. It is inclusive of the half-year WACC to account for the timing assumptions in the PTRM.

Opening RAB includes "growth assets" of $296m ($nom)

Closing RAB does not include "growth asset" adjustments

Depreciation

- AER allowed net depreciation cost increase of 2.8% to $560.2m ($nominal). Change due to
  - Increase due to AER applying the new inflation approach
  - Offset in part because AER reduced the proposed amount for accelerated depreciation of proposed new asset classes
- AER's Draft Determination :
  - Accepted proposed year by year tracking approach
  - Accepted accelerated depreciation for decommissioned assets
  - Accepted proposal to reduce asset lives of polymeric insulators, but
  - Rejected rejected proposal for glass and porcelain insulators
  - Rejected proposal to reduce asset life of instrument transformers

Total reduction of $340m ($2021-22)[1]

- CCP23 supports AER's decision
  - Recognise and appreciate the AER's extensive investigation on the issues we raised re asset lives and accelerated depreciation

1) See AER, *AusNet Services Transmission 2022-27, Draft Decision*, Attachment 2, p 14. Figure is gross deprecation, ie before inflation adjustment of the depreciation.

AER's Draft Decision on proposed asset lives

Table 4.3 AER's draft decision on AusNet Services' asset lives at 1 Apr 2022 for insulators and instrument transformers (years)

Asset class	Proposed asset life	AER asset life
Insulators - Already decommissioned	1.0	1.0
Insulators - Decommission 2022-2027	5.0	5.0
Instrument transformers - Already decommissioned	1.0	1.0
Instrument transformers - Decommission 2022-2027	1.0	5.0
Insulators/Polymeric insulators[a]	40.0	35.0
Instrument transformers[b]	38.0	45.0

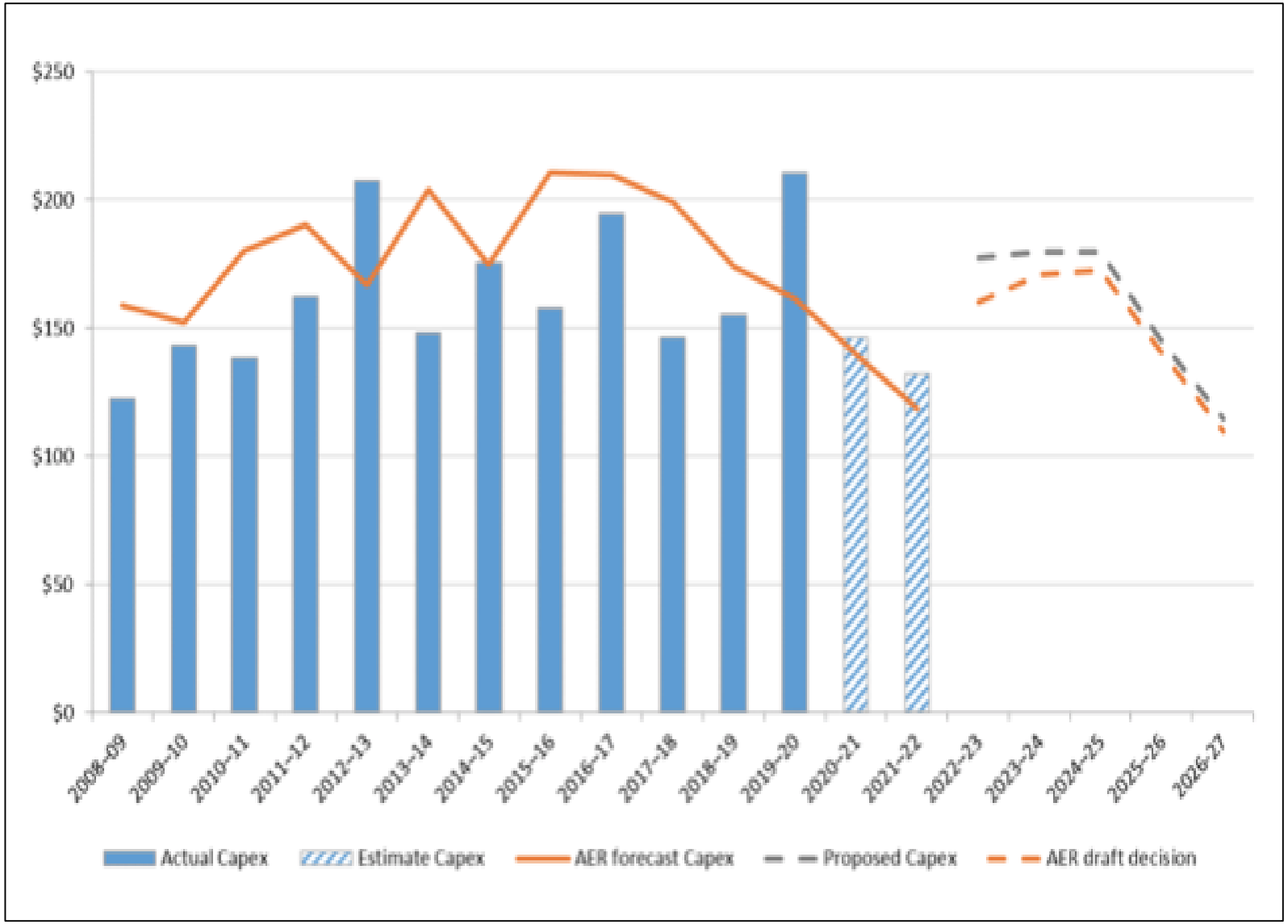
Source: AER analysis.

(a) As discussed below, we have narrowed the proposed new asset class from all insulators (including long lived glass and porcelain insulators) to those made of polymeric material. AusNet Services proposed that polymeric insulators have an asset life of 25 years.

(b) AusNet Services initially proposed 38 years for these assets. In response to our questions it revised the asset life to 40 years. We have not approved the proposed reduction to the standard asset life for this asset class and consider the assets should remain being depreciated over 45 years. We have therefore transferred the value of the assets back to the existing broader asset class of 'Switchgear', which has a 45 year standard asset life.

CAPEX

AER reduces ANS's proposed capex by 5.5%



AER assessment:

- Overall forecasting approach is prudent
- Rejects:
  - one project
  - some capex costings
- Notes risk of some 'material' changes given ANS proposed review of costs

AER's main concern is with the proposed asset replacement program

Table 5.3 AER draft decision substitute estimate ($million 2021–22)

	AusNet Services forecast	AER draft decision	Difference ($)	Difference (%)
Major station renewal	424.2	422.0	-2.2	-0.5%
Asset replacement program	213.4	173.1	-40.3	-18.9%
Information technology	83.8	83.0	-0.8	-0.9%
Safety, security and compliance	54.2	53.7	-0.5	-0.9%
Non-network	22.2	22.0	-0.2	-0.9%
Total	**797.7**	**753.8**	**-44.0**	**-5.5%**

Source: AER analysis; AusNet Services, *Revenue Proposal 2023–27*, 29 October 2020.

Note: Non-network capex includes the additional amount of capitalised leases expenditure.

Numbers may not add up due to rounding.

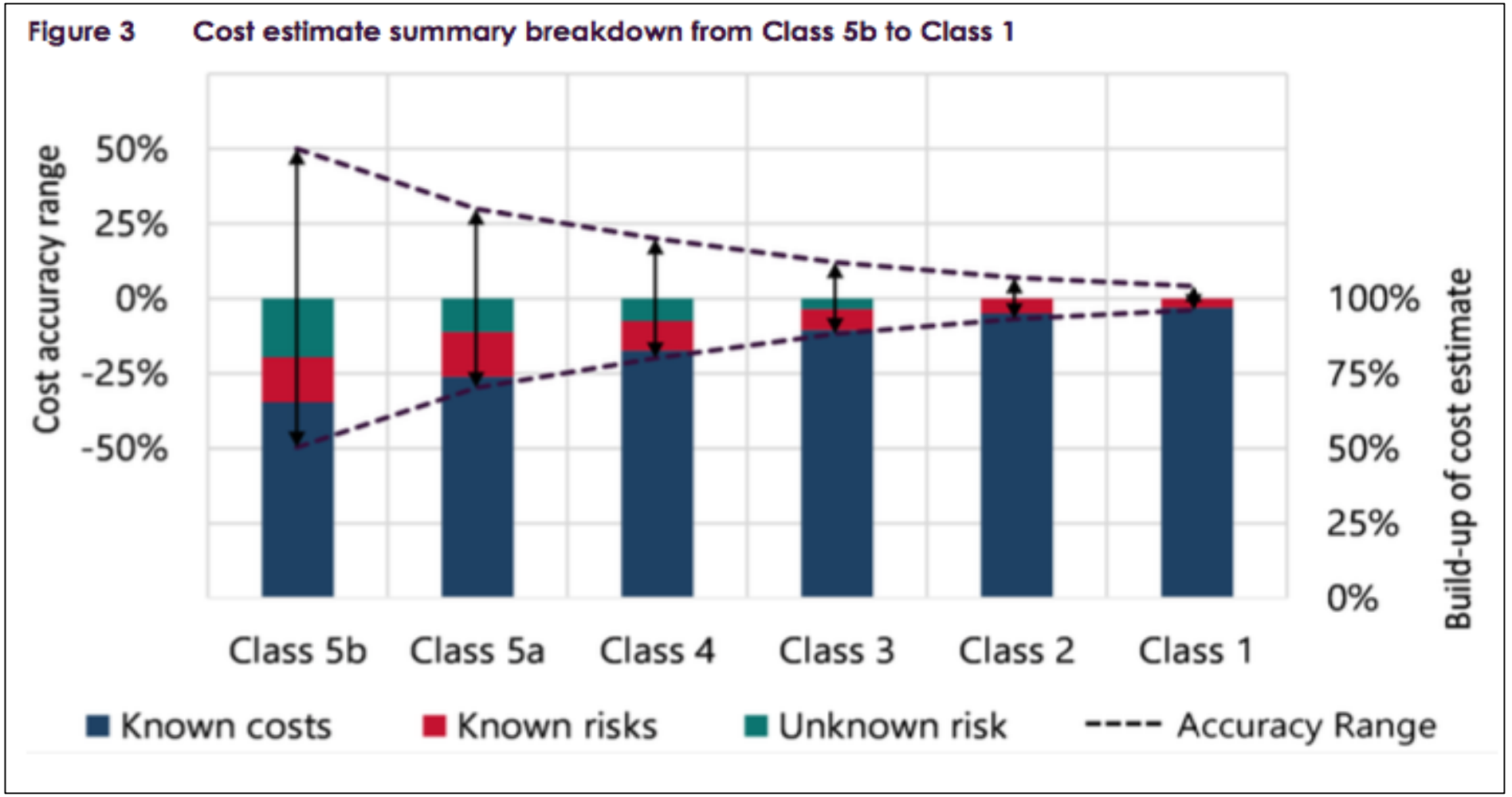
Major station renewals

- AER allowed $422m ($2021-22) – a reduction of <1%. AER states ANS has :
  - ‘reasonably’ justified the need
  - Adopts good industry practice in identifying and quantifying impacts of failure
  - Undertakes prudent cost-benefit & options analysis
  - Likely identified the efficient cost of its major station projects
  - Noted significant improvement since 2017 in AusNet’s approach
- CCP23 agrees with AER’s position
- Potential for changes in ANS’s revised capex proposal
  - Updating costs of a number of major projects
  - Refinement of its major project risk allowances
  - Impact of early closure of Yallourn power station (2028)
  - Impact of renewal works on system strength
- ANS is currently consulting with consumers on some changes
- Net effect of these changes on total capex & project timings is not yet clear

Asset replacement program (ARP)

- AER allowed $173m ($2021-22), a reduction of 19% to ANS's proposal. AER states ANS has:
  - Generally adopted a 'relatively prudent' approach to its forecast.
  - However, the AER did not support the following:
    - The proposed replacement of some microwave radio devices ($23.4m), given reasonable condition of current radio devices
    - The proposed risk allowance for price & volume uncertainty ($14.8m); AusNet can more readily mitigate risks on ARP projects
- CCP23 generally supports the AER's conclusions
  - ANS has the opportunity to address some of these concerns in its revised proposal
  - Opportunity to address communication upgrades through Vic Govt $540m fund
  - CCP also expressed concerns with some inputs into ANS's risk assessment
- Assessment of project risk costs is an important area for development

Assessing risks on cost estimates for major projects – AEMO conceptual framework.



Source: AEMO, Transmission Cost Report, 30 July 2021, Figure 3, p 15: https://aemo.com.au/-/media/files/major-publications/isp/2021/transmission-cost-report.pdf?la=en

CCP23 supports AER's conclusions on other capex programs

- The AER has largely accepted all other aspects of ANS's proposed capex. Some points to note:
  - Ongoing development and application of condition-based economic assessment – eg in the replacement of insulators
  - Increases in cyber security protection on critical equipment and IT systems
    - AER accepts ANS's allocation of shared IT costs
    - External regulations – required to reach Maturity Indicator Level (MIL) 3 by 2024
  - Improvements to risk assessment & management – some capex increases but offset by, decreases in other areas (eg installing fall arrests)
  - Capex/opex trade offs:
    - Cyber security expenditure - AER states proposed opex step change not adequately supported in proposal – may lead to increase in capex?
    - Proportion of owned rather than leased vehicles
  - Cost escalators:
    - AER accepts real increase in internal labour costs due to Superannuation Guarantee
    - Rejects real increase in external labour costs – Insufficient evidence to support this

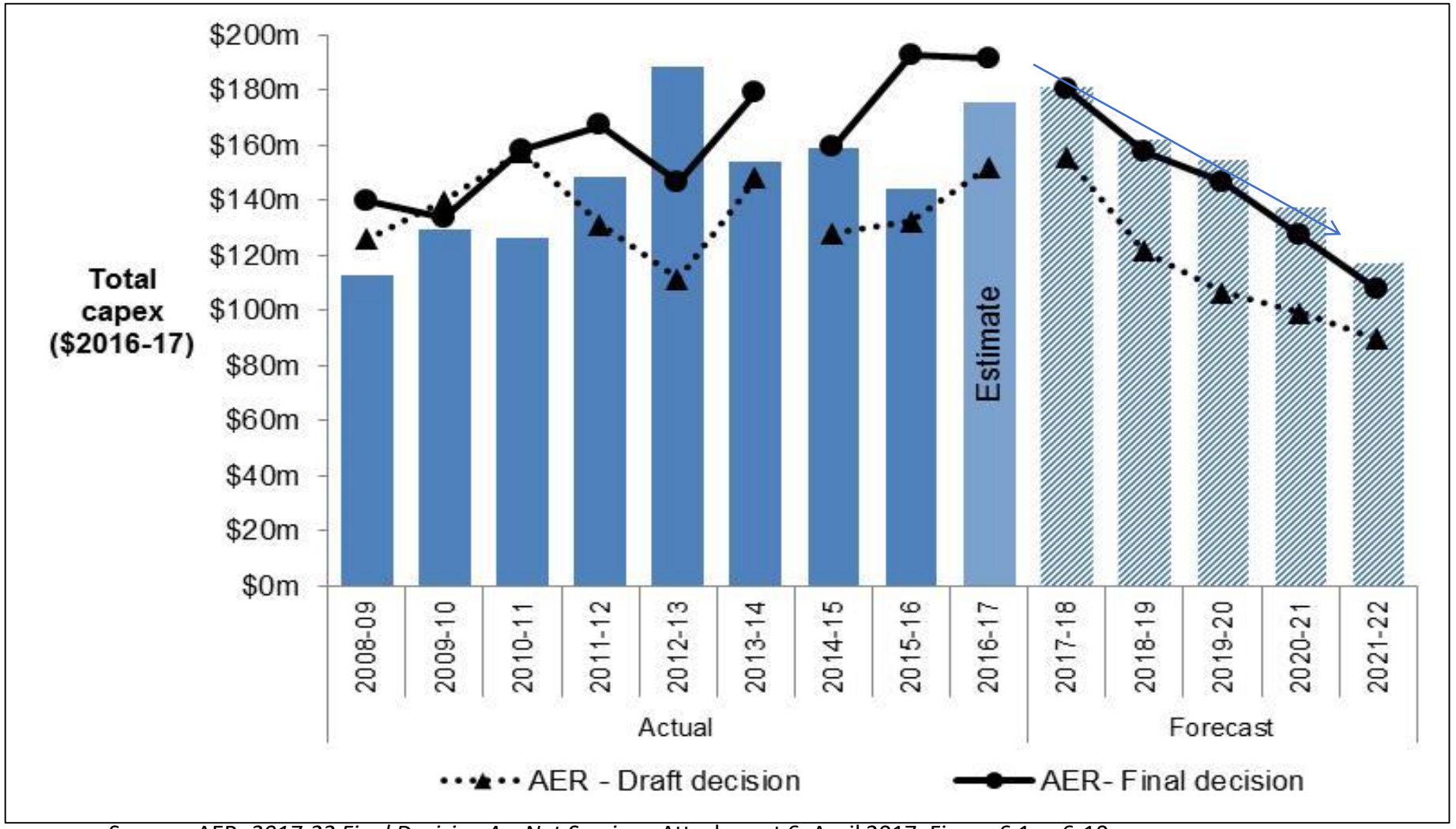
AER draft determination summary

Table 6 AER draft decision on total forecast capex ($million, 2021–22)

	2022–23	2023–24	2024–25	2025–26	2026–27	Total
AusNet Services' proposal	177.43	181.06	179.54	144.86	114.85	797.74
AER draft decision	160.47	170.75	172.72	140.25	109.60	753.78
Difference	-16.96	-10.31	-6.82	-4.61	-5.25	-43.96
Percentage difference (%)	-9.6%	-5.7%	-3.8%	-3.2%	-4.6%	-5.5%

Excludes 'growth' capex incurred over the period at the direction of AEMO and distributors. This capex will be rolled into ANS's RAB at the start of the next regulatory period.

Efficient capex allowances & capex timing – mismatch between proposed & actual



Source: AER, *2017-22 Final Decision AusNet Services*, Attachment 6, April 2017, Figure 6.1, p 6-10.

Efficient capex allowances & capex timing – implications for CESS?

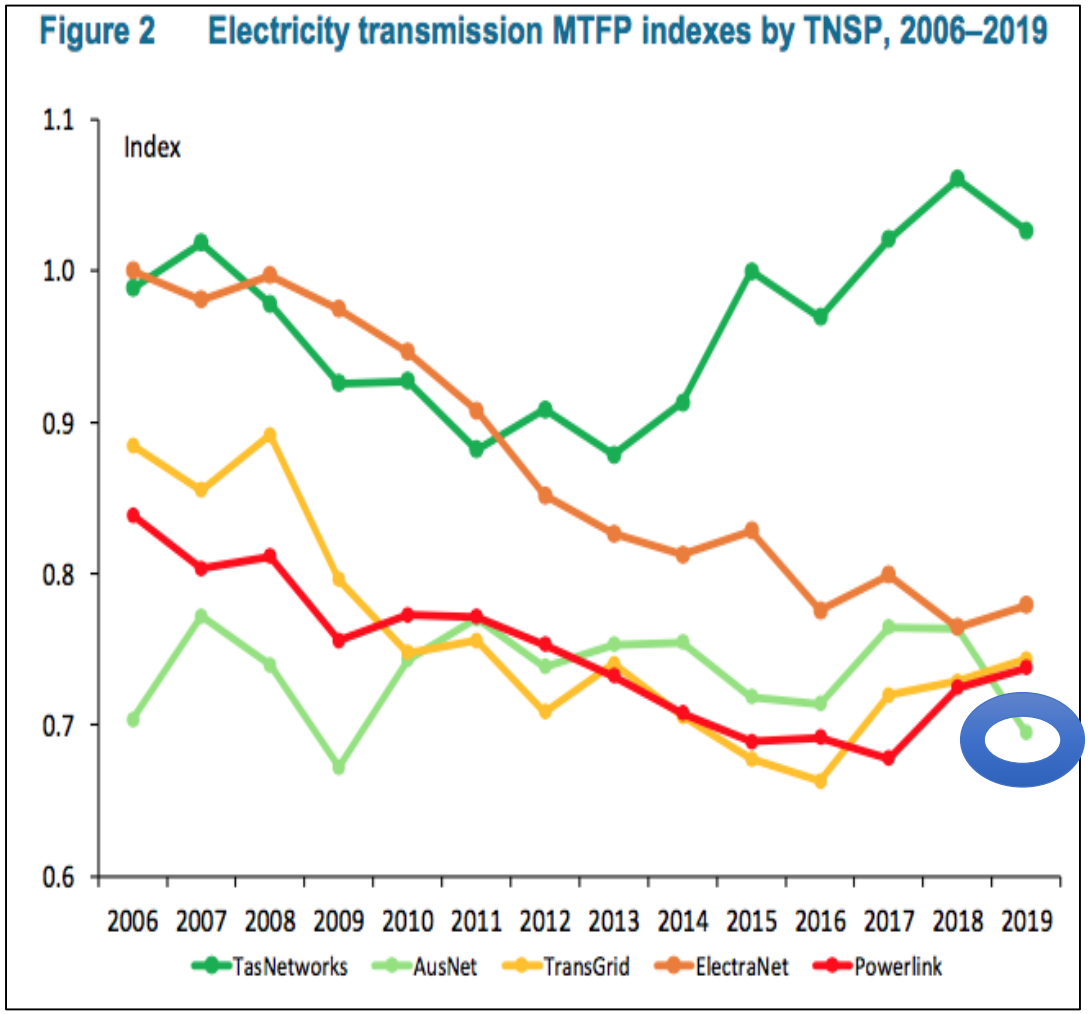
Table 5.4 AusNet Services' actual net capex versus capex allowance – 2017–22 regulatory control period ($million, nominal)

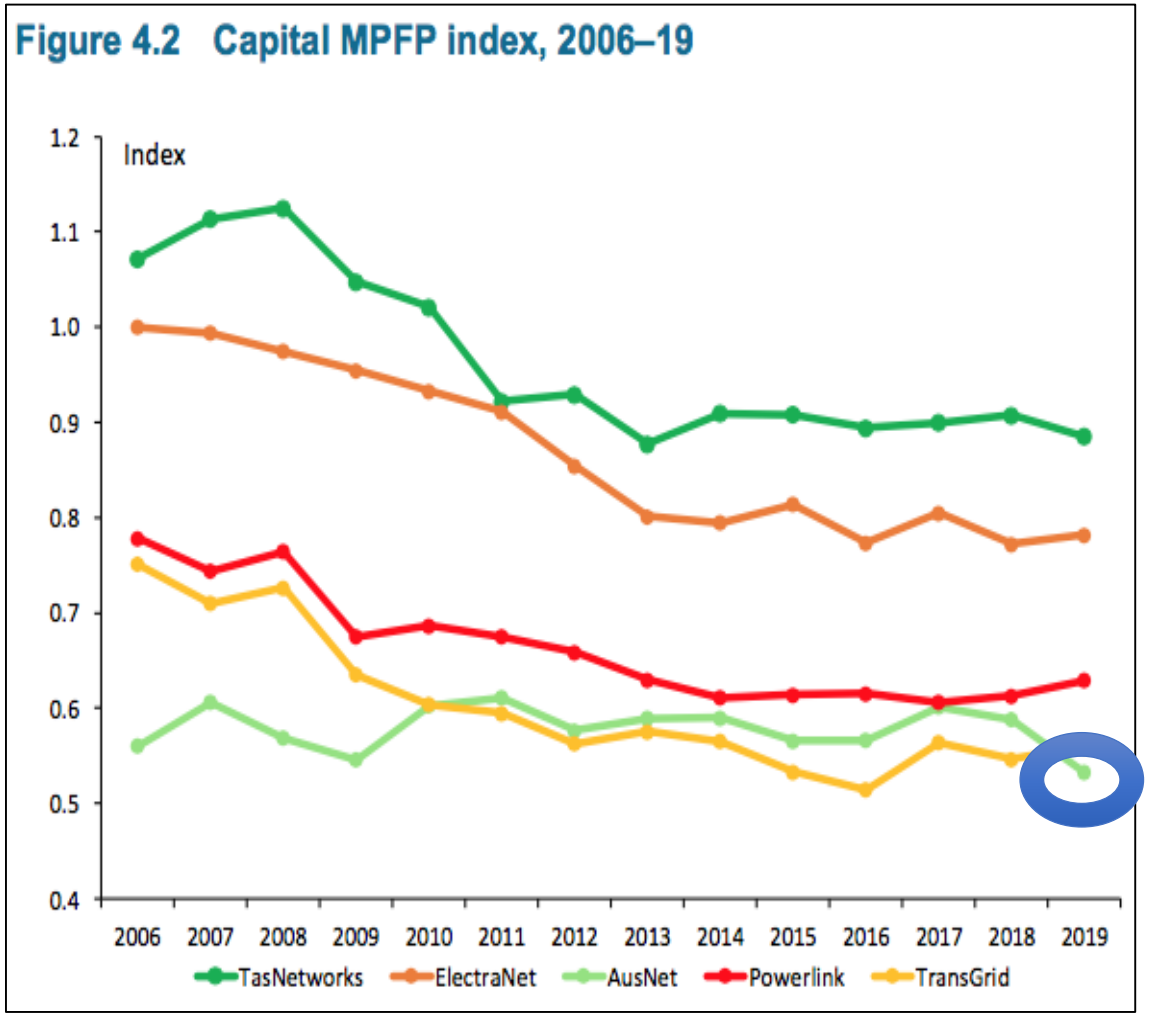
Category	2017–18	2018–19	2019–20	2020–21	2021–22	Total
Total net capex allowance	183.3	163.1	161.5	154.0	118.4	780.3
Total net actual capex	127.7	143.8	192.6	151.0	131.1	746.2
Capex overspend / (underspend)	(55.6)	(19.3)	31.1	(3)	12.7	(34.1)

Source: AusNet Services, AER.

Source: AER, *2022-27 AusNet Services Draft Decision*, 2022-27 Attachment 5, p 31.

Relatively low & stagnant capital productivity constrains improvements in overall productivity





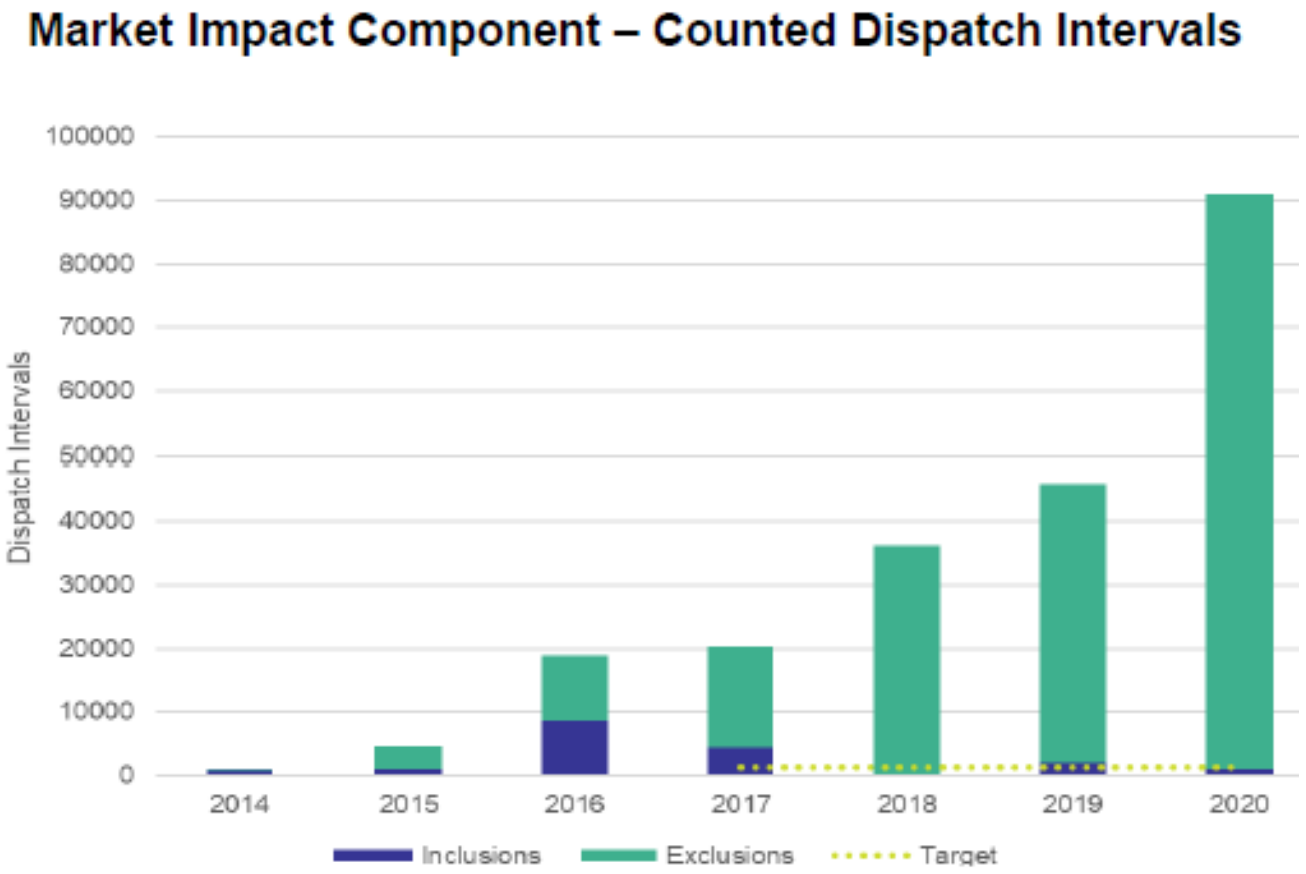
Source: AER, Annual Benchmarking Report – Electricity Transmission networks, Nov 2020.

Outstanding capex issues for ANS's revised regulatory proposal

- Potential for increases in major project capex compared to proposal
- Estimation of 'risk' allowances for asset replacement projects
- Direct access by ANS to Vic Government funding?
- Review of labour/contractor costs for capital projects
- Changing market conditions since revenue proposal
  - 2022 ISP – development of AEMO scenarios
  - Early retirement of coal-fired power plant (Yallourn)
  - Post 2025 market design – transmission pricing
  - Federal and State government (particularly Victoria & NSW) policies
- Capex forecasts & actual capex profiles?
- Identify opportunities for capex productivity improvements
- System strength & ANS's outage management/costs/incentives

Incentive Schemes.
NB: MIC, NCIPAP

STPIS – Market Impact Component (MIC)



- Note the importance of the exclusion regime
- In 2020, 99% of counted Dispatch Intervals were excluded from final performance
- ANS contends that the MIC as designed is no longer fit for purpose
- We participated in a workshop where ANS considered this issue with stakeholders
- We will review the ANS revised proposal with this in mind

Network Capability Incentive Parameter Action Plan – ANS 23rd July

Proposed NCIPAP Project: RealTime System Restoration Manager (RTSRM) project

- **The Network Capability Component (NCC) of the STPIS encourages TNSPs to undertake high-benefit/low-cost projects that facilitate improvements of transmission system assets at times when users place greatest value on the reliability of the transmission system**
- The RTSRM is an application that will be available for normal operations such as daily switch orders and real-time monitoring and assessment of system conditions
- This would increase the capability of network operators to create and analyse small-scale outage and restoration plans typically needed for daily maintenance and clearance purposes, thereby providing wider benefits
- This product has also been in service for several years at PG&E (Pacific Gas and Electric California) for de-energising and re-energising wide areas of California on extreme fire risk days
- We expect that a successful delivery of the RTSRM will reveal important information in assisting in future transmission network capability development.

Customer benefits	Accurate real-time asset data provision (generators, loads, lines, transformers), especially useful during emergency situations
	Improved simulation and planning of a contingency event and system restoration related to severe weather through utilising weather analytics
	Reduction in expected unserved energy
	Reduction in outage times
	Improved overall transfer capability across the network
Costs	Capital installation of $800,000

Incentive Schemes

- We support AER review of the various incentive schemes, to ensure that incentive schemes continue to operate in the long-term interests of consumers, this should include reviewing contemporary appropriateness of MIC
- We urge the AER to assign a high priority to this work program in 2021
- Our comments in our advice were predicated on the current schemes continuing to apply, as we do not know what changes to the schemes may be proposed in the AER's review of incentive schemes
- We support the positions on incentive schemes that the AER took in its Framework & Approach document

Comments or Questions?