CAP Working Group Items of Interest Identified on 29 October 2021

On 29 October 2021, the CAP Working Group identified the following item of interest via an email from Mark Henley.

ElectraNet has completed the following table as requested by the Working Group.

<table>
<tr><th>Topic</th><th>Latest price/ status</th><th>Comments re lower cost options considered</th></tr>
<tr><td>Longer term direction/ narrative</td><td colspan="2">

The PRP (Section 2) and the summary note provided on 28 October 2021 summarise the overall narrative of the Revenue Proposal.
ElectraNet's Network Vision public consultation early in 2021 and WG Meeting 3 (with presentations by AEMO and SAPN) also focused on the long-term direction of the network.
In the next few years ElectraNet will build the Project EnergyConnect interconnector to New South Wales and complete the Eyre Peninsula upgrade. We have recently commissioned four synchronous condensers in South Australia's Mid North region.
The Eyre Peninsula upgrade will substantially improve the reliability of supply to Port Lincoln and the Eyre Peninsula generally.
The other two projects will facilitate increased uptake of renewable energy while maintaining reliability and security of supply. They will allow wholesale electricity prices to fall substantially, while increasing transmission prices modestly.
In the forthcoming regulatory period, ElectraNet will return to 'business as usual '. Unlike the current regulatory period, the outlook for 2024 – 2028 is dominated by refurbishing and replacing assets on our ageing network, guided by our Asset Management Objectives, which are:

Safety of people – ensure the safety of staff, contractors and the public;
Protect the environment – ensure the environmental impact of network operations are minimised;
Affordability and reliability – reduce the overall cost of electricity to customers by removing network constraints, operating the network and delivering our capital and maintenance works as efficiently as possible, while maintaining safety and reliability;
Power system security and resilience – ensure the network is resilient and operates within acceptable parameters in the face of electrical, physical, or cyber disruption, and continues to enable the transition to a low carbon emissions future.

These objectives were developed in consultation with ElectraNet's Consumer Advisory Panel and are consistent with the National Electricity Objective and the capital expenditure objectives set out in the National Electricity Rules.

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Repex	The Repex forecast (replacement and refurbishment) has been reduced from $494m in the Preliminary Revenue Proposal (PRP) to $401m (a $93m or 19% reduction), based on the outcomes of customer engagement and further internal review and development.	• The majority of ElectraNet's capital forecast relates to Repex driven by the ongoing need to manage safety, security and reliability risks associated with ageing assets. • Since the PRP ElectraNet has undertaken a line-by-line Management review of the capital program, including the project need, scope, cost estimate and economic benefits to customers – this review has considered specific feedback from the CAP Working Group and led to the cancellation of some projects, and scope reductions and cost revisions on others. • Project deferral is considered as an option in the economic assessment for each Repex project – this means that for projects included in the capex forecast, the economic assessment has found the deferral option to be less beneficial for customers, often with an unacceptable safety risk to people working on the relevant equipment (refer to WG Meeting No. 2 information). • A top-down assessment shows that the current Repex forecast is 36% less than the current period forecast. Further reductions would involve unacceptable increases in network and asset risk.
ICT	The Business IT capex forecast has been reduced from $77m in the PRP to $73m (a 5% reduction). This reflects the cancellation of two projects and cost refinements for others. We have also refocused our overall technology program on the benefits to be delivered to customers. In addition, accounting standard changes now require us to account for cloud computing services as opex, and this impact is being separately shown in the forecasts.	**ICT program** • The WG previously sought information regarding the driver of/ need for the various projects in our overall ICT portfolio. This was provided in *Additional Information #5* (cost) and *Additional Information #10*. • In summary, our internal review has prioritised and refocused the technology program on the benefits to customers and identified two projects which we considered lower priority to proceed, and these have been removed from the forecast. • For the remaining ICT projects, we remain of the view that these will be beneficial to customers noting that many of them are expected to reduce the cost of our day-to-day business operations, which will flow through to customers as future price reductions. **ICT and Cyber security** • A small part of the total ICT portfolio relates directly to the cost of improving our cyber security. This was discussed at *WG meeting 5* and is discussed in the step change section below.

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Step changes (opex)	Four step changes are proposed as follows: 1. **Insurance**: this step change will address both the increasing cost of insurance premia during the coming period and the impact of changes in ElectraNet's insurance deductibles, which are expected to increase substantially to bring us in line with our peers (current arrangements are very favourable and not expected to be offered in future). 2. **Cyber:** this step change will deal with the cost of improving ElectraNet's cyber security during the regulatory period and is expected to bring ElectraNet into full compliance with anticipated legislative requirements at SP3. This remains under consideration by our Board. 3. **Cloud computing**: this step change will account for the impact of shifting operations to the cloud (separate from costs that need to be moved from capex to opex due to changes in the appropriate accounting treatment of items). 4. **Rule changes**: This step change will deal with the impact of recent rule changes that have given (and will give) give ElectraNet additional responsibilities in planning and managing the increasingly complex electricity network, which will require additional specialist resources.	The opex step changes represent external costs imposed on the business that are largely outside of our control. Some of these costs have risen from the PRP based on the latest information. • In relation to the proposed insurance step change the CAP WG encouraged ElectraNet to consider the appropriate approach to risk sharing between customers, ElectraNet and others, and to consider opportunities to reduce forecast costs. • As discussed at *WG meeting 5*, our ability to do this is constrained by the National Electricity Law and Rules, the Electricity Transmission Code, the network lease, and other instruments, which all place obligations on ElectraNet to maintain various levels of insurance (*WG meeting 5*). Based on the Working Group's feedback, we will propose a cost pass-through if cyber insurance becomes unavailable in future. • The risk sharing review identified cyber security and cyber insurance as areas in which alternative risk sharing approaches may be appropriate. In particular, the legislation driving cyber security obligations remains fluid, and the cost of complying with them, and of lifting our cyber security to a prudent level, remains unclear. • The latest information suggests a growing likelihood of firm cyber security obligations in the short-term, and on this basis a full compliance solution is currently expected to be proposed based on achieving SP3. The ElectraNet Board will consider the appropriate level of cyber security maturity to target at it November 2021 meeting.

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EP/PEC deferral implications (rising costs)	Estimated cost savings now expected for PEC and timing delays into the next regulatory period represent cost savings for customers. These savings are partially offset by the additional cost of demolishing the existing Eyre Peninsula line that is required to be removed from service as a condition of development approval.	• Estimated PEC cost savings and timing deferrals that have become apparent since the PRP will result in required revenue and customer prices being lower than otherwise due to lower cost and later capitalisation of the assets. • ElectraNet has rebalanced its capital program and workload given the PEC timing delay through offsetting project timing movements, minimising any net increase in the capex forecast for the coming period • The PEC deferral has no impact on CESS outcomes because major project timing movements (such as for PEC) are removed from the CESS calculations. However, the rebalancing mentioned above will have adverse CESS outcomes for ElectraNet. • The cost impact of the Eyre Peninsula line removal is expected to be more than offset by savings on PEC.
Anti-climb on towers	ElectraNet presented several scope options for this project. We have reduced the proposed project scope and therefore cost estimate from \$36m in the PRP to \$21m, largely by adopting a more targeted and staged approach to addressing the public safety risk over multiple regulatory periods.	• A range of lower cost options were considered as set out in the CAP WG Additional Information – tower anti-climb note of 10 August 2021. • We propose to adopt the lower cost option described, subject to any further advice the Working Group receives from Lifeline.

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How is ENet improving efficiency, NB AER Benchmarking Productivity targets (opex)	• ElectraNet has stringent controls in place to manage its operating expenditure and these have been ramped up in the current regulatory period, limiting recruitment of new or replacement roles (Group Executive panel approval required to fill roles), and placing downward pressure on external consultancy, travel, and training costs. Current levels of training and development are unsustainable in the longer term. Employment records show high levels of annual leave balances and excess hours worked which are an indication of limited resources available and which are also unsustainable in the longer term. • In response to increasing upward pressure on operating expenditure, ElectraNet has needed to consistently overspend the AER opex allowance in the current regulatory period at shareholders' expense to meet our obligations to serve the long-term interests of customers. This too is unsustainable in the longer term. • Realistically, there are no opportunities to further reduce the operating expenditure forecast given known cost pressures, without placing at risk the ongoing ability of ElectraNet to efficiently manage and operate the network to deliver the services customers expect. • Our updated opex outlook is a realistic reflection of our expected costs and remains consistent with the AER's base step trend approach. We believe the opex outlook reasonably satisfies the National Electricity Rules operating expenditure objectives and is reasonable for the purpose of establishing an efficient ex-ante opex allowance. • The AER's transmission benchmarking report shows that ElectraNet is the second most efficient Australian TNSP, and the most efficient of the mainland TNSPs (*WG meeting #6 and Additional Information – benchmarking*). ElectraNet's poor ranking on the AER Opex partial factor productivity measure is offset by its higher ranking on Capex partial factor productivity. • The forthcoming (2021) benchmarking report shows that ElectraNet has improved on all three benchmarking measures since last year, though our position has not changed relative to other TNSPs. • As discussed at *WG meetings #5, #6* and in *Additional information – benchmarking,* ElectraNet believes efficient costs in South Australia are relatively higher than in other states due to the unique characteristics of South Australia's transmission network. ElectraNet's poor ranking among TNSPs in terms of the AER Opex partial factor productivity benchmarking reflects limited opportunities for economies of scale (being a smaller network), the geographic spread of the service area – more assets are required to provide the same level of service, and the age of our network – older assets require more maintenance, and therefore more opex. • In this respect ElectraNet welcomes the AER's indication in the draft of the 2021 benchmarking report that it will consider whether output measures currently included in its benchmarking are appropriate moving forward.	
Regional Engagement	• The PRP was published on our website and promoted on social media and through our mailing lists. It also received coverage in the Advertiser. As the Working Group is aware, the PRP contains a call to action, inviting consumers and other stakeholders to get in touch to express their views on our forthcoming regulatory proposal. • As the Working Group is also aware, though, it can be difficult to get end customers to engage with transmission given its arms-length relationship with customers. • ElectraNet has been very active in regional areas with its customer and stakeholder engagement in connection with the Eyre Peninsula upgrade, Project EnergyConnect and, to lesser extent, the synchronous condenser project.	

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RAB impacts if interest rates rise, and current action options	ElectraNet will show the impacts on forecast revenue of upward movements in interest rates at the Working Group meeting on 12 November 2021.	
Contingent projects: probability and triggers	• Please refer to previous CAP WG presentation and handout. • The current position is that there will be three contingent projects rather than the five included in the PRP, with three potential contingent projects to be automatically deemed as such if triggered under the Rules. • The additional contingent project is the Power Quality Management project that was included in the capex forecast in the PRP – this was discussed with the WG at WG meeting 3. • The WG asked whether the need for the project is sufficiently well defined to include it in the capex forecast and whether a transmission solution is most efficient. • Given these uncertainties, ElectraNet has reduced the scope of the project to focus on quantification of the problem and identification of the cause – once more information is available the project will be reconsidered, potentially as a contingent project.	• The contingent project approach is inherently cost reducing because customers only pay for the project if the project is required. • AEMO is conducting a review of the five contingent projects proposed in the PRP and the Power Quality management project (referred to in the PRP as "Harmonic Filter Banks"). • AEMO's draft findings are that: – All five contingent projects identified in the PRP should be considered as contingent projects – More information is required before the need for the power quality management project can be confirmed. This is consistent with the feedback from the WG and with ElectraNet's revised proposed approach to this project. • Two of the contingent projects are likely to be identified in AEMO's ISP. If these projects are identified as actionable projects in the ISP, they will be deemed as contingent projects regardless of whether they are included in the Revenue Proposal. • The same applies to the system strength project, which will be introduced automatically as a contingent project if required under the Rules.

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In the previous period we made forecasts of the cost of three major projects, namely Project EnergyConnect, the Eyre Peninsula upgrade, and the Main Grid System Strength (synchronous condensers) project.
As our understanding of these projects grew over time the cost estimates increased. This has been reflected more widely across the NEM in AEMO’s ISP. Among other things, this has reflected the unique nature of the projects with little recent experience to draw upon.
Our experience has been that outturn project costs for smaller projects have also exceeded expectations. This has resulted from multiple factors including higher costs in the market which we understand is also reflected across other infrastructure sectors, reflecting price pressures across the board, and the complexity involved in delivering small in situ asset replacements. These cost pressures have been managed through active ongoing reprioritisation of the capital program.
ElectraNet has also identified and implemented improvements in its project scoping and estimating approach that are intended to provide more accurate and higher confidence project cost estimates for the Revenue Proposal.
The overall stable but downward trend in forecast expenditure across repex and other categories provides confidence that the network can be efficiently managed within an overall prudent capital expenditure allowance, with individual projects prioritised as needed as the capital program is delivered to maintain an acceptable overall risk profile and maintain the services customers expect.
Our proposal to introduce twice yearly sessions for CAP members to provide insight and opportunity to influence development of network and asset plans will also increase the ongoing involvement of customers in this process as the capital program is managed and delivered
It should also be remembered that the revenue reset is about setting an efficient level of capex for the next regulatory period that is reasonably required for ElectraNet to meet its obligations under the Rules related to reliability, security and safety of supply. The AER does not approve individual capital projects in its revenue determination. ElectraNet is expected to manage and reprioritise its capital program within the AER capex allowance as new information becomes available during the regulatory period, while balancing the need to meet ongoing service requirements and address network and asset risk.
In doing this we will make use of the best available information at the time to identify the highest priority projects and implement those. In large part this can be expected to correspond with our forecast capex program, but there will always be some change to requirements. It is in customers’ long-term interests that we pursue projects that are priorities at the time even if this differs from those we currently expect to be priorities. Therefore, over time, the scope of projects we pursue will change.
The Capital Expenditure Sharing Scheme (CESS) should also be considered. This is a key part of the incentive based regulatory regime which is explicitly intended to give ElectraNet an incentive to underspend our capex allowance. It does this by rewarding us financially for doing so. However, that reward represents only a fraction of the saving, with the balance going to customers. Therefore, consumers benefit when ElectraNet obtains a CESS reward payment. At the same time the CESS penalises ElectraNet for overspending our capital allowance to ensure that we do not do so lightly. The intention is to acknowledge the imperfections inherent in forecasting the capital requirement, while also ensuring that ElectraNet has an incentive not to make customers fund projects that are not efficient.
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