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Opex Step Change Overview Paper

2023-28 Revenue Proposal

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1. Purpose, structure and scope of this document

1.1. Purpose and scope of this document

This document explains and justifies our proposed operating expenditure (opex) step changes for our prescribed transmission services for the next regulatory control period 1 July 2023 to 30 June 2028 (2023-28 regulatory period). This document supports our Revenue Proposal and references other supporting documents for further detail.

All opex is presented in real 2022-23 dollars and is expressed in total costs (i.e. direct costs plus escalations).

Our opex forecast is discussed in chapter 7 of our Revenue Proposal, including our proposed base year and proposed escalation factors.

We explain and justify our categories of capital expenditure (capex), including replacement capex (Repex), augmentation capex (Augex), Information Technology (ICT) and Non-network Other, in separate capex overview documents.

1.2. Structure of this document

This Opex Step Change Overview Paper is structured as follows:

- chapter 2 presents a summary of our proposed opex step changes
- chapters 3 explains and justifies our insurance premium step change
- chapter 4 explains and justifies our cyber and physical security step change
- chapter 5 explains and justifies our ISP preparatory activity step change
- chapter 6 provides a summary of the documents and models relevant to the opex step changes (see below).

A number of other documents and models support, and form part of, our 2023-28 Revenue Proposal. This document references these documents and models for further detail and should be read in conjunction with them.

2. Summary of opex step changes

This chapter sets out our proposed opex step changes over the 2023-28 regulatory period, as well as potential additional step-changes that may be required due to anticipated regulatory and policy changes and a number of step-changes that we have decided to self-fund over the next regulatory period.

2.1. Base-step-trend approach

As set out in chapter 7 of our Revenue Proposal, we have applied a base-step-trend (BST) forecasting methodology to prepare our opex forecast, other than debt raising costs where we have adopted a category specific forecast. The BST is the AER's preferred forecasting method and is the approach we proposed in our Expenditure Forecasting Methodology.[1]

This paper provides details of our proposed opex step changes over the 2023-28 regulatory period resulting from new or changed regulatory obligations or changes in external circumstances beyond our control.

2.2. Proposed opex step changes

Table 2-1 sets out our forecast opex step changes over the 2023-28 regulatory period and the associated driver. These step changes account for 5.7% of our total opex forecast.

Table 2-1: Opex step changes 2023-28 ($Million, Real 2022-23)

Opex step changes	Driver	Total opex
1 Insurance premiums	Change in insurance market conditions beyond our control and increase in asset base due to Major Projects.	30.0
2 Cyber & Critical Infrastructure Security	New regulatory obligation	25.0
3 ISP Preparatory Activity	New regulatory obligation	2.9
Total		**57.8**

Chapters 3 to 5 explain and justify each of these step changes including the driver of each step change and the basis on which we have developed the step change cost estimate.

2.3. Other potential opex step changes

In addition to our proposed opex step changes in Table 2-1 we may need additional opex step changes over the 2023-28 regulatory period for:

- **Transmission Ringfencing Guideline** – compliance costs associated with any changes made by the AER to the transmission ring-fencing guideline. We understand the AER plans to release its draft ring-fencing guideline for consultation in early 2022.

[1] TransGrid, 2023-28 Expenditure Forecasting Methodology, June 2021

- **AEMO Participant fees** – Energy Networks Australia (ENA) submitted a Rule Change to the AEMC in August 2021 to clarify that AEMO's restructured market fees would be recovered from electricity consumers outside of the Revenue Determination. If the intent of the Rule Change is not approved by the AEMC then we may have to include recovery of AEMO fees as a step change in our forecast opex.

We will assess the need for these additional step changes once the policy and / or regulatory positions are more advanced. We will include an update in our Revised Revenue Proposal of the need or otherwise for additional opex step changes.

2.4. Self-funded ICT opex step changes

Over the 2023-28 regulatory period, we expect to modernise and improve our ICT tools, as well as transition into cloud-based ICT services. We expect increases to both ICT capex and opex over the same period for some of our ICT work packages, which means that we cannot demonstrate the capex to opex trade-offs in order for the AER to approve the increases in opex as step-changes. We therefore propose to self-fund these opex increases.

Over the 2023-28 regulatory period, we estimate that we will self-fund $[redacted] million total increased ICT opex, or $[redacted] million per annum. This is made up by the following ICT packages[2] of work:

- Application Maintenance – we plan to update or replace 100+ specialised software applications with cloud-based applications, either due to obsolescence or end of vendor support. This will require additional opex to support these cloud-based services of three and a half additional headcount and support costs for our payroll system. The additional opex is $[redacted] million over 5 years, or $[redacted]K per annum.
- Customer Safety and Support – we plan to replace our current Customer Relationship Management (CRM) tool to a modern best-of-breed product and provide the public an on-line portal to enhance customer engagement capabilities. An increase in total opex of around $[redacted] million over 5 years, or $[redacted] thousand per annum, will be required to fund additional licencing and support for the CRM and online portal.
- Operational Evolution – we plan to replace our legacy Project and Portfolio Management (PPM) system with a hybrid cloud-based project management solution and invest in inventory, asset and workforce management tools. There are projected to be opex increases as these are cloud-based solutions. We expect to incur $[redacted] million additional opex over the 2023-28 regulatory period, or $[redacted] million per annum.
- Infrastructure and Network – we plan to continue transitioning our IT landscape into a hybrid environment with IT infrastructure being both on-premises and in the cloud. We will be migrating at least 10 critical and viable on-premises applications to cloud-based platforms over the 2023-28 regulatory period, increasing our opex by around $[redacted] million over 5 years, or $[redacted] thousand per annum.
- Data and Decisioning – we plan to maintain data from our legacy systems in an online archive for ongoing compliance and asset maintenance purposes. This archive will maintain data which has not been migrated to our cloud platforms, for cost prudency. In addition, there will be an additional three

[2] See ICT overview paper for more details on the ICT packages of work.

resources required to support an increased focus on data quality and integrity. The additional opex is $[redacted] million between 2023-24 and 2025-26, or $[redacted] thousand per annum.

3. Insurance Premiums

This chapter sets out our proposed opex step change for insurance premiums, which have been increasing at unprecedented levels due to increased frequency and severity of natural catastrophe events globally and hardening market conditions.

3.1. Forecast opex step change

Table 3-1 sets out our forecast Insurance Premium opex step change over the 2023-28 regulatory period.

Table 3-1: Insurance Premium opex step change 2023-28 ($Million, Real 2022-23)

	2023-24	2024-25	2025-26	2026-27	2027-28	Total 2023-28
Insurance Premium	3.8	5.1	6.1	7.0	8.0	**30.0**

3.2. Background

As a prudent business operating a large transmission network, we purchase several types of insurances to cover potential liabilities that may arise in our daily operation. The insurances we have are as follows:

- **General liability insurance,** which provides us with cover for third party personal injury, property damage and financial loss, including bushfire liability
- **Industrial Special Risks (ISR)** insurance, which provides us with cover for damage to assets declared within the policy, such as substations and transmission lines
- **Financial and professional related insurances**, such as director/officer liability, employment practices liability, professional indemnity, corporate protection, workplace health and safety liability, and cyber liability; and
- **other (ancillary) insurances**, including Motor, Marine Transit, Corporate Travel, Group Journey, Contract Works and Contractors Pollution Liability insurances.

3.3. Driver of the step change

Insurance premium rates are subject to external factors that our other operating costs are not. This means that insurance premiums are not expected to follow typical inflationary drivers (e.g. consumer price index or average weekly earnings) that apply to many of our other operating costs over the 2023-28 regulatory period. Whilst insurance premiums largely reflect the risks of insuring our exposure, other external factors have considerable bearing on insurance pricing. These external factors include:

- recent claims activity of other insured businesses (nationally and globally)
- the increased frequency and severity of natural catastrophes
- demand from other utility companies and government entities for the same types of insurance, such as bushfire liability coverage in Australia
- market capacity available, which depends on the amount of available insurer capital and willingness or appetite to deploy capital, and
- capital requirements.

The insurance market is hardening for many of the insurance products we purchase due to significant global claims activity and a resultant reduction in market capacity. This has led directly to substantial premium increases. The COVID-19 pandemic has also increased the uncertainty on potential liability for insurers, adding further pressure on premiums.

To help understand the likely change in insurance premiums, we have engaged Aon plc[3] to forecast our insurance premiums for the 2023-28 regulatory period. Aon is a leading global provider of risk management, insurance brokerage and reinsurance brokerage. Aon has provided insurance premium forecasts for four types of insurances, namely: general liability, ISR, financial and professional insurances, and ancillary insurances. Aon's forecasts are presented in Table 3-2 below.

Overall, Aon's forecasts suggest the following:

- [redacted]
- [redacted]
- [redacted]

Table 3-2: Insurance premium forecast by insurance type (including statutory charges, ex GST, $Million, nominal)

Insurance type	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	change FY22-FY28
General liability	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
ISR	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Financial/ professional related	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Other/ Ancillary	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Total	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

In making its forecasts, Aon identified key cost drivers for the different insurance types. A summary of the key cost drivers over the 2023-28 regulatory period is provided in the table below. Many of these factors are outside our control, with the notable exception of the increased value of our declared assets as we deliver several major projects in the next regulatory period.

3 Aon, Premium Cost Forecast, November 2021.

Table 3-3: Key cost drivers for different types of insurance over the 2023-28 regulatory period

Insurance type	Key cost drivers
General liability	Insurer capacity and reserves have been reduced due to increasing severity and frequency of natural catastrophic events. Uncertainty over the liability impacts of COVID-19 is also putting pressure on general liability premiums.
ISR	There is pressure on ISR insurance rates as insurers adjust their premiums to address profitability concerns and as insurers withdraw capacity from the market after claims worsened during 2020. The costs of our ISR insurance will increase as our declared asset value grows over the 2023-2028 regulatory period
Financial/ professional	Cyber liability insurance is expected to increase significantly due to an escalating trend in ransomware attacks. Deteriorating economic conditions are also expected to increase premiums for corporate protection, and director and officer liability insurance.
Ancillary/other	Premiums expected to increase due to hardening insurance market conditions.

3.4. Reflection in our base year

Our base year opex forecast includes $11.2 million to cover our insurance premiums for FY2022. This factors in increases in premiums that have already occurred in the market. However, further increases in insurance premiums significantly above CPI are expected in each year of the 2023-28 regulatory period as estimated by Aon.

3.5. Estimation of the opex step change

The insurance premium opex step change is based on forward estimates provided by Aon, as noted above.[4]

Aon has relied upon our latest insurance costs as the base cost for its forecast. This information has been used alongside analysis from insurance line broking specialists, industry data, research and anticipated changes in our exposures to forecast our future insurance costs for the different insurance types.

[redacted]

4 Aon, Premium Cost Forecast, November 2021.

Table 3-4: Insurance Premium opex step change 2023-28 ($Million, Real 2022-23)

	2023-24	2024-25	2025-26	2026-27	2027-28	Total 2023-28
Aon insurance premium estimate (Nominal)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Less FY22 insurance premiums adjusted for inflation (Nominal)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Conversion to real 2022-23$	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Insurance Premium (Real$2023)	3.8	5.1	6.1	7.0	8.0	30.0

4. Cyber and Critical Infrastructure Security

This chapter sets out our proposed opex step change for new regulatory obligations for Cyber and Critical Infrastructure Security.

4.1. Forecast opex step change

Table 4-1 sets out our forecast Cyber and Critical Infrastructure Security opex step change over the 2023-28 regulatory period.

Table 4-1: Cyber and Critical Infrastructure Security opex step change 2023-28 ($Million, Real 2022-23)

	2023-24	2024-25	2025-26	2026-27	2027-28	Total 2023-28
Cyber and Critical Infrastructure Security	5.2	4.7	5.2	4.7	5.2	25.0

4.2. Background

In response to cyber security and critical infrastructure concerns, the Federal Government passed the Security of Critical Infrastructure Act 2018 (CI Act), which introduced obligations in the electricity, gas, water and ports sectors to ensure the physical and electronic security of Australia's critical infrastructure.

Since the passage of the CI Act, the Department of Home Affairs is progressing the need for tighter cyber security for critical assets through the Security Legislation Amendment (Critical Infrastructure) Bill 2020 (Cth), which has subsequently split into two parts. Part 1 is the Security Legislation Amendment (Critical Infrastructure) Bill 2021 which has now been legislated and part 2 of the Bill is the draft Security Legislation Amendment (Critical Infrastructure Protection) Bill 2022 (collectively 'Critical Infrastructure Bills'). The Critical Infrastructure Bill requirements are expected to commence from January 2023 and will impose requirements on us to increase our cyber and physical security capabilities above those currently required under the CI Act. The Critical Infrastructure Bills build on work completed by AEMO to develop the Australian Energy Sector Cyber Security Framework (AESCSF). There are two measures for cyber security capability and maturity in the AESCSF:

- Maturity Indicator Level (MIL) – there are four MILs, MIL-0 through to MIL-3, and
- Security Profile (SP) – there are 3 SP levels, SP-1 through to SP-3.

On 13 October 2021 the NSW State Government introduced the Energy Legislation Amendment Bill 2021 (NSW Bill) which was subsequently legislated in November 2021. It is expected that the NSW Bill brings forward the AESCSF compliance timeframe requirements of part 2 of the Federal Critical Infrastructure Bill by 12 months.

[redacted]

4.3. Driver of the step change

This step change is driven by new regulatory obligations, ie, the Critical Infrastructure Bills and NSW Bill.

When fully enacted, these bills will require us to achieve the equivalent of MIL-3 across all domains and sustain a SP-3 rating within 60 months after the bill has been passed.

Table 4-2 sets out our expected compliance requirement and required timing under the proposed Critical Infrastructure Bills. We have taken these timeframes to commence from when the NSW Bill was legislated.

Table 4-2: Compliance timing under the proposed CI Bill

	Compliance requirements	Timing from Bill commencement
Cyber Security	Meet SP-1 of the AESCSF Framework	12 months
	Meet SP-2 of the AESCSF Framework	24 months
	Meet requirements that will be based on the new AESCSF Framework currently being drafted, but likely akin to the SP-3 requirements in the existing framework.	60 months
Personnel Security	Develop a process for determining critical employees, contractors and sub-contractors	6 months
	Ensure our risk management program includes details of processes used to determine critical employees	6 months
	Ensure our risk management program includes details of how background checking (both for new and ongoing employees) is conducted, having regard to AS 4811-2006, or the most recent version of this standard, or an equivalent standard	6 months
	Ensure critical employees, engaged 12 or more months after the commencement of the Bill, undertake and pass a background check under the AusCheck scheme	Immediate
	Ensure our risk management program includes details of how we: • Assess and manage the ongoing suitability of self-assessed critical employees, contractors and subcontractors • Manage the risk of insider threats to our assets, including but not limited to negligent employees and malicious insiders • Manage risks arising from the off-boarding process for staff, contractors and subcontractors • Manage risks arising from existing employees who fail to maintain suitability.	12 months
Supply Chain Security	Ensure our risk management program includes details of how we comply with the requirements of: • ISO 28001:2007 Security management systems for the supply chain, best practices for implementing supply chain security, assessments and plans, requirements and guidance, or an equivalent standard • ISO 28000:2007 Specification for security management systems for the supply chain, or an equivalent standard • ISO 22301:2019 Security and resilience, business continuity management systems requirements, or an equivalent standard.	12 months

	Compliance requirements	Timing from Bill commencement
	Demonstrate how our risk management program, as far as is reasonably practical, minimises and mitigates relevant impacts to our assets arising from the supply chain, including but not limited to: • Unauthorised access, interference or exploitation • Privileged access • Disruption and sanctions • Threats to people, assets, equipment, products, services, distribution and intellectual property within supply chains	12 months
Physical Security	Ensure our risk management program sets out how we: • Detect and deter unauthorised persons accessing secure areas and respond to incidents where unauthorised access occurs • Restrict, control and monitor access by unauthorised persons • Control authorised access, including restricting access to only those persons with the appropriate approval who have an operational need to access.	12 months
	Demonstrate in our risk management program how we conduct tests, as appropriate, to ensure active security measures are effective and appropriate to detect, deter, respond to and recover from breaches of security at self-assessed critical sites. These tests may be conducted in conjunction with other safety, security or emergency management exercises or procedures.	12 months
	Ensure our risk management program sets out how we have regard to ENA Doc 015 2006 "National guidelines for prevention of unauthorised access to electricity infrastructure".	12 months

4.4. Reflection in our base year

In the current regulatory period, we have made changes to how we manage growing cyber and critical infrastructure vulnerabilities[redacted] we expect to undertake several activities in 2021-22 in our operational technology (OT), information and communication technology (ICT), and physical infrastructure. We discuss the activities we intend to undertake in the 2021-22 year in Table 4-3 below.

Table 4-3: [redacted]

Type	Domain	Activity Type	Current Activities 2021-22
[redacted]	[redacted]	[redacted]	[redacted]
			[redacted]
			[redacted]
			[redacted]
			[redacted]

Type	Domain	Activity Type	Current Activities 2021-22
			[redacted]
			[redacted]
			[redacted]
		[redacted]	[redacted]
		[redacted]	[redacted]
			[redacted]
			[redacted]
		[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
			[redacted]
			[redacted]
			[redacted]
		[redacted]	[redacted]
		[redacted]	[redacted]

The passage of the Critical Infrastructure Bills and NSW Bill will require us to achieve a MIL-3 rating and a SP-3 rating. [redacted]

[redacted]

Table 4-4: ICT[5], OT[6] and physical infrastructure[7] opex for new activities in FY22 ($Million, Real 2022-23)

[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
			[redacted]
			[redacted]

5 TransGrid Initiatives Workbook, 12 November 2021, OER Packages spreadsheet, cells E87.

6 TransGrid Initiatives Workbook, 12 November 2021, OER Packages spreadsheet, cells E88.

7 TransGrid Initiatives Workbook, 12 November 2021, OER Packages spreadsheet, cells E89 to E90.

[redacted]	[redacted]	[redacted]	[redacted]
			[redacted]
			[redacted]
			[redacted]
	[redacted]		[redacted]
			[redacted]
			[redacted]
			[redacted]
			[redacted]
			[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
			[redacted]
[redacted]			

4.5. Estimation of the opex step change

As noted in section 4.3, we will be required to obtain a MIL-3 rating and SP-3 rating within 60 months of the passage of either the Federal or NSW bill in all AESCSF domains, [redacted]

We expect that the forecast opex will be ongoing given increased political concern associated with cyber and infrastructure security and the new obligations being imposed on us under the Critical Infrastructure and NSW Bills.

[redacted]

Table 4-5: Our SP maturity rating by AESCSF domain

[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]

8 Our assessment is against expected obligations on our ICT and OT business units.

9 Ibid.

[redacted]	[redacted]	[redacted]
[redacted]		
[redacted]		
[redacted]		
[redacted]		
[redacted]		
[redacted]		
[redacted]		
[redacted]		
[redacted]		
[redacted]		
[redacted]		
[redacted]		

[redacted]

Table 4-6: Step change activities to meet requirements under the draft CI Bill

[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
		[redacted]	[redacted]
		[redacted]	[redacted]
		[redacted]	[redacted]

[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

Table 4-7 sets out the opex step change required for OT, ICT and physical infrastructure over the 2023-28 regulatory period. Total incremental opex over the 2023-28 regulatory period for these activities is estimated at $25.0 million. The basis for these cost estimates include licence fees, external vendor fees, hardware costs and labour costs. The cost of new 2021-22 activities listed in Table 4-4 have been deducted from this.

These costs are expected to be incurred evenly as the activities necessary to comply with the new obligations remain the same each year. The only exception is physical infrastructure, where a further $0.47 million every second year is required for independent physical security control validation and assurance reviews.

Table 4-7: ICT[10], OT[11] and physical infrastructure[12] opex step change 2023-28 ($Million, Real 2022-23)

	2023-24	2024-25	2025-26	2026-27	2027-28	Total 2023-28
ICT	3.7	3.7	3.7	3.7	3.7	**18.6**
OT	0.7	0.7	0.7	0.7	0.7	**3.5**
Physical infrastructure	0.8	0.3	0.8	0.3	0.8	**2.8**
Total	**5.2**	**4.7**	**5.2**	**4.7**	**5.2**	**25.0**

We have considered alternative, lower costs options for meeting the requirements of the Critical Infrastructure Bills in the following documents:

- The ICT Cyber Security OER, and
- Critical Infrastructure Security Costs report.

However, our assessment indicates that alternative, lower costs options would not allow us to fully comply with the legislated and draft Critical Infrastructure Bills. As such, these alternatives have been ruled out.

[10] TransGrid Initiatives Workbook, 12 November 2021, OER Packages spreadsheet, cells G90 to K90.

[11] TransGrid Initiatives Workbook, 12 November 2021, OER Packages spreadsheet, cells G91 to K91.

[12] TransGrid Initiatives Workbook, 12 November 2021, OER Packages spreadsheet, cells G94 to K94.

5. ISP Preparatory Activities

This chapter sets out our proposed opex step change for future Integrated System Plan (ISP) projects where we are required by AEMO to undertake 'preparatory activities' (excluding where those activities relate to Renewable Energy Zones (REZs) being developed as part of the NSW Electricity Infrastructure Roadmap).

5.1. Forecast opex step change

Table 5-1 sets out our forecast ISP preparatory activities opex step change over the 2023-28 regulatory period.

Table 5-1: ISP Preparatory Activities opex step change 2023-28 ($Million, Real 2022-23)

	2023-24	2024-25	2025-26	2026-27	2027-28	Total 2023-28
ISP Preparatory Activities	1.0	1.0	1.0	-	-	2.9

5.2. Background

AEMO can require us to carry out 'preparatory activities' for future ISP projects it has identified. These projects are not yet 'actionable' under the new ISP rules, but are expected to become so in the future and are part of the future ISP optimal development path.

Future ISP projects that AEMO has identified in its draft 2022 ISP and where we are required by the ISP to undertake preparatory activities include:

- QNI Connect, and
- New England REZ Extension

We anticipate that AEMO will require us to complete preparatory activities by 30 June 2023 in their final 2022 ISP.

The ISP is published on a biannual basis – this opex step change is to recover our expected costs of undertaking preparatory activities for future ISP projects identified in future versions of the ISP.

This opex step change does not include preparatory work on REZs which we currently anticipated will be recovered under the separate cost recovery provisions being developed as part of the NSW Electricity Infrastructure Roadmap.

5.3. Driver of the step change

This step change is driven by a regulatory obligation.

The National Electricity Rules (NER) rule 5.22.6(c) specifies that an ISP may specify whether preparatory activities must be carried out for future ISP projects and the timeframes for carrying out preparatory activities.

‘Preparatory activities’[13] is defined as activities to design the project and investigate the costs and benefits of a projects, including:

- detailed engineering design
- route selection and easement assessment work
- cost estimation based on engineering design and route selection
- preliminary assessment of environmental and planning approvals, and
- council and stakeholder engagement.

NER rule 5.22.6(d) specifies that a Transmission Network Service Provider (TNSP) must:

1. in the case of an actionable ISP project for which preparatory activities have not yet commenced, commence preparatory activities as soon as practicable; and
2. in the case of a future ISP project, if the ISP provides that preparatory activities must be undertaken for that project, commence preparatory activities in accordance with the timeframes specified in the ISP for that project.

NER rule 6A.8.2 automatically classifies actionable ISP projects as contingent projects if the trigger event under NER rule 5.16A.5 has occurred (i.e. confirmation by AEMO). In such cases, the preparatory costs can be included as part of the contingent project costs. However, even though we are obligated to carry out preparatory activities, we cannot seek cost recovery if an actionable ISP project does not meet the trigger event under NER rule 5.16A.5, nor for preparatory activities for a future ISP project.

5.4. Reflection in our base year

Our 2021-22 base year opex does not include any work on preparatory activities. The 2020 ISP required us to complete preparatory activities for specified future ISP projects by 30 June 2021. As such, no preparatory activities are expected to be undertaken in 2021-22.

5.5. Estimation of the opex step change

There is an ongoing obligation for us to undertake preparatory activities where required by AEMO for actionable and future ISP projects. However, the level of preparatory activity completed by us will depend on the number of future ISP projects AEMO includes in its biennial ISP that involve works within NSW.

From the draft 2022 ISP, AEMO requires us to undertake preparatory activities for two NSW projects, including publishing a report on the outcome of these activities by June 2023.

It is expected that work on preparatory activities for each ISP project will cost around $935K for external consultant and incremental internal labour costs. We have assumed that we will be required to complete preparatory activities on three future ISP projects in the first three years of the 2023-28 regulatory period, with each project having on average two options.

Our cost estimate for undertaking preparatory activities is based on costs incurred by us for four previous projects, namely, QNI Medium and Large, North West REZ, New England REZ and Reinforcing Sydney – Newcastle – Wollongong supply. For future projects, we have assumed that in undertaking preparatory

[13] NER rule 5.10.2.

activities we will recruit incremental labour resources and external consultant assistance. We have separately identified external costs and the additional internal labour required for each project as follows:

- Our average external consultant costs incurred across our four previous projects is [redacted]
- We estimate the required incremental internal labour [redacted] per project based on our four previous projects. This equates to a cost of [redacted] per project, using an average labour rate of [redacted] for comparable planning work.
- Given the unknown nature and scope of preparatory activities, we have included a [redacted] to cover risk and planning costs.

Based on the above we estimate that we will incur $935 thousand per project to cover external consultant costs and internal labour support, assuming that each project has that has two options. This translates to a value of $1.0 million in Real 2023 dollars per project, and we have assumed that we will need to undertake preparatory activities for one project per year during the first three years of the 2023–28 regulatory period.[14]

[14] ISP Preparatory Activities Estimate Workbook, 6 August 2021, Summary spreadsheet, cells C44 to C51.

6. Supporting documentation

The following documents support our opex step change submission for the 2023-28 regulatory period.

Expert reports and business cases

- AON - Insurance Premium Cost Forecast
- OER-Cyber Security
- Critical Infrastructure Security Costs report