



Jemena Electricity Networks (Vic) Ltd

Technology Plan

IT Investment Brief - DW and BI Step change

Recurrent - Step Change



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Glossary

AER	Australian Energy Regulator
BI	Business Intelligence (reporting)
BO	Business Objects – a BI tool from SAP
Current regulatory period	The period covering 1 Jan 2016 to 31 Dec 2020
CYxx	The calendar year which covers the 12 months to 31 December of year 20xx. For the current regulatory period, this is equivalent to RYxx
DNSP	Distribution Services Network Provider
DW	Data Warehouse
HANA	A high-performance database platform from SAP used by many of their products
ICT	Information and Communications Technology
Intervening period	The period covering 1 Jan 2021 to 30 Jun 2021 covers the time between the current regulatory period and the next regulatory period. The Intervening period arises with the move from a calendar year regulatory year to financial.
Jemena	Refers to the parent company of Jemena Electricity Networks (Vic) Ltd.
JEN	Jemena Electricity Networks (Vic) Ltd.
Next regulatory period	The period covering 1 Jul 2021 to 30 Jun 2026
RYxx	Regulatory year covering the 12 months to 30 June of year 20xx for years in the Next Regulatory Period and the 12 months to 31 December of year 20xx for years in the Current Regulatory Period. For example, RY20 covers 1 January 2019 to 31 December 2020 and RY22 covers 1 July 2021 to 30 June 2022

Data Warehouse and Business Intelligence Recurrent Step Change

Objective	<p>The objective of this business case is to ensure that Jemena Electricity Networks (Vic) Ltd. (JEN) maintains the platforms and systems that support the Data Warehouse (DW) and Business Intelligence (BI) reporting.</p>
Background	<p>During the current regulatory period, JEN implemented an all-new foundation platform for its financial, management and regulatory (including Regulatory Information Notice) reporting. This was forecast and allowed for in the AER's determination for the current regulatory period. Data is extracted from a range of systems into the data warehouse where analysis tools are used to produce reports.</p> <p>The establishment of this foundational system was classified as a <i>non-recurrent – maintain</i> project during the current period. No recurrent expenditure associated with this platform was incurred as the first lifecycle update will not occur until the next regulatory period.</p> <p>JEN's 'base' recurrent expenditure (used to forecast recurrent expenditure required during the next regulatory period) is calculated from the actual recurrent expenditure during the current regulatory period. As this does not include any recurrent expenditure for DW/BI systems, a step change is required to account for the additional recurrent expenditure that will be required during the next regulatory period for these systems.</p> <p>We have therefore included this step change to reflect the necessary ongoing lifecycle maintenance activities associated with this system which are not captured in JEN's 'base' recurrent expenditure for the current regulatory period.</p> <p>The systems are used in such a way as to store information for long periods, which is a requirement under many laws, and also a requirement under RIN's issued by the AER.</p> <p><i>NB: The use of the HANA database product as part of this solution is unrelated to the SAP ERP system and any potential migration to the new SAP S4/HANA platform in the future. HANA has been used here with the SAP Business Objects (BO) reporting tool and underpins the DW part of the solution.</i></p>
Customer Importance	<p>The DW/BI reporting systems provide JEN with the data it needs, in the right format, to run the network and to meet its regulatory reporting obligations for providing financial, health & safety, RIN and other reporting to regulators, customers and other stakeholders.</p> <p>The DW/BI systems offer a reporting environment that is automated, reliable, repeatable and auditable, which is necessary for customers (and other stakeholders) to have confidence in the information that is reported.</p>
Strategic Approach	<p>Jemena has invested during the current period in its reporting systems, updating to new products and building dedicated reports to improve mandatory reporting and meet all regulatory requirements, such as to provide RIN data in actuals as required by the AER. It is a strategically important platform to the business that requires regular maintenance, upgrading and patching to remain reliable and secure.</p>
Options	<p>JEN has considered only one option, that is maintaining the DW/BI environment as replacing the system comes at a high-cost, or unwinding the system would require a reversion to manual processes, which come at a higher cost. Jemena has a strong track record of maintaining its platforms and applications efficiently and prudently as evidenced by the work performed as <i>Recurrent – base expenditure</i> over the current and previous regulatory periods.</p>

Option 1: Maintain the DW/BI systems**Description**

JEN will update the DW/BI platforms and reporting tools through lifecycle upgrades and replace and upgrade the hardware platforms and management tools as they fall due through similar procedures as are undertaken for the other corporate applications.

Costs

DW/BI systems are shared across Jemena's subsidiary businesses. JEN's portion of Jemena's costs for this option is outlined in the table below.

Table 1: Option 1 Costs – JEN portion, Direct Escalated (mid-year 2021)

\$2021	Project ID	RY22	RY23	RY24	RY25	RY26
HANA Database Upgrades	ITSA05		276,648			
HANA TDI (Hardware & OS) Replacements	ITSA15		302,533			
Business Objects/Cloud Analytics Lifecycle	ITSD16		137,181		138,211	
Data Warehouse Lifecycle (SAP BW/4HANA)	ITSD17		251,499		253,388	
SAP HANA SDI Life Cycle (SLT, ESP, Data Services)	ITSD57				126,694	
SAP HANA SDI Minor Patches (SLT, ESP, Data Services)	ITSD58	28,478	28,579	28,686		
Total		28,478	996,441	28,686	518,293	0

This approach will require \$1.6M of recurrent capital expenditure for the maintenance of the DW/BI systems over the next regulatory period.

These costs were estimated using JEN's standardised estimator tool for IT projects as described in the Technology Plan under the section on Forecasting Method. They are in keeping with similar projects for the other hardware platforms and database management tools and the experience from the implementation of the toolset during the current regulatory period.

Risks

The risks of these projects are managed within Jemena's governance and project management framework; the risks—typically deployment, technological and change management—are not considered material for these projects.

Benefits

There are no specific incremental benefits associated with this option. All forecast expenditure is for maintaining existing functionality through regular updates and replacement to remain current and supported.

Summary

This option will maintain the existing systems at an efficient cost. However, it will impact upon the operations of the entire business if the projects are not undertaken.

Options Summary	<p>The table below summarises the quantitative and qualitative differences between the analysed options.</p> <p style="text-align: center;">Table 2: Options Summary</p> <table border="1" data-bbox="359 383 1173 495"> <thead> <tr> <th data-bbox="359 383 494 434"></th> <th data-bbox="494 383 721 434">Capex \$2021</th> <th data-bbox="721 383 948 434">Qualitative Risks</th> <th data-bbox="948 383 1173 434">Qualitative Benefits</th> </tr> </thead> <tbody> <tr> <td data-bbox="359 434 494 495">Option 1</td> <td data-bbox="494 434 721 495" style="text-align: center;">-1,571,897</td> <td data-bbox="721 434 948 495" style="text-align: center;">Low</td> <td data-bbox="948 434 1173 495" style="text-align: center;">Low</td> </tr> </tbody> </table>		Capex \$2021	Qualitative Risks	Qualitative Benefits	Option 1	-1,571,897	Low	Low
	Capex \$2021	Qualitative Risks	Qualitative Benefits						
Option 1	-1,571,897	Low	Low						
What We Are Recommending	<p>Jemena proposes to proceed with maintaining DW/BI systems into the future as recurrent expenditure similar to the other major corporate ICT systems that Jemena operates.</p> <p>As no recurrent replacement expenditure was incurred during the current regulatory period for Data Warehouse and Business Intelligence systems, a step change of \$1,571,897 (\$2021, direct, escalated) should be applied to the <i>recurrent – base</i> forecast for the next regulatory period. This will ensure that the allowance for recurrent expenditure during the next regulatory period is sufficient to cover Data Warehouse and Business Intelligence lifecycle projects that were not required during the current regulatory period due to significant non-recurrent projects applied to these platforms and systems.</p>								
Relationship to ICT Capital Forecast	<p>The proposed option for this business case is contained in the ICT investment plan as Recurrent – step Project IDs: ITSA05, ITSA15-17, ITSD57-58.</p>								