



# Jemena Electricity Networks (Vic) Ltd

## ICT business case Post Implementation Report (PIR)

5 Minute Settlement / Global Settlement



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## Abbreviations

<b>5MS/GS</b>	Five Minute Settlement / Global Settlement
<b>AMI</b>	Advanced Metering Infrastructure
<b>AER</b>	Australian Energy Regulator
<b>AEMC</b>	Australian Energy Market Commission
<b>JEN</b>	Jemena Electricity Networks
<b>LNSP</b>	Local Network Service Provider
<b>MP</b>	Metering Provider
<b>MC</b>	Metering Coordinator
<b>MDP</b>	Metering Data Provider

## 1. Executive summary

On 28 November 2017, the Australian Energy Market Commission (AEMC) made a final rule to change the settlement period for the electricity spot price from thirty minutes to five minutes, aligning the operational dispatch and financial settlement at five minutes. On 6 December 2018, the AEMC made a final rule that required a move from a boundary load settlement to a global settlement framework for the demand side of the wholesale electricity market. On 9 July 2020, the AEMC announced a minor rule change to effect a three-month deferral to the original market go-live dates for both Five Minute Settlement and Global Settlement (5MS/GS).

The full scope of the 5MS/GS metrology procedures, business process and information technology changes were successfully implemented within budget and to the regulatory go-live dates of 1 October 2021 and 1 May 2022, respectively.

Jemena Electricity Network (JEN) is a Local Network Service Provider (LNSP) located in Victoria. JEN is subject to the National Electricity Rules (NER or Rules) and the obligations of the derogation associated with the implementation of the VIC-AMI meters. In the context of obligations to undertake changes required to implement 5MS and GS, JEN has the roles of:

- LNSP - able to accept and process metering data associated with Type 1 to 4 and Type 7 metering
- Metering Provider (MP) for Meter types VIC-AMI 5,6,7
- Metering Coordinator (MC) for Meter types VIC-AMI 5,6,7
- Meter Data Provider (MDP) for Meter types VIC-AMI Type 5,6,7.

There were no specific financial benefits associated with the program as the benefits of this industry reform are delivered to customers through other parts of the electricity supply chain via improved price signals and improved bidding incentives. The primary benefit for JEN was continuing to comply with all relevant regulatory obligations. If JEN did not comply with the rule changes, there would be significant risks to JEN's ability to continue operating.

### Reason for closing the project

Reason:  Cancellation  Postpone or on hold  Natural Completion

**Table 1–1: Executive summary**

Key consideration	Details
Background	<p>28 November 2017 – Five Minute Settlement Rule change<sup>1</sup>.</p> <p>6 December 2018 – Global Settlement Rule change<sup>2</sup>.</p> <p>The implementation of the changes ensured that JEN systems and processes remained compliant with NER and that JEN continues to meet its regulatory and licence obligations in its roles of LNSP, MP, MC and MDP in the National Electricity Market (NEM).</p>
Performance against regulatory allowance	<p>The cost to deliver was 2.5 times higher than the regulatory allowance due to the allowance covering only part of the program duration from Jul-21 excluding the CY18 to Jun-21 period; additional cost impacts were COVID and associated pauses on the Program across the industry. The cost performance appears to be consistent with other Victorian electricity distribution network service providers (DNSPs) and was significantly under the budget of the Business Case.</p>

<sup>1</sup> [https://www.aemc.gov.au/sites/default/files/2020-09/ERC0201\\_including\\_Delayed\\_implementation\\_of\\_5MS\\_%26\\_GS\\_for\\_publication\\_minus\\_old\\_note\\_0.pdf](https://www.aemc.gov.au/sites/default/files/2020-09/ERC0201_including_Delayed_implementation_of_5MS_%26_GS_for_publication_minus_old_note_0.pdf)

<sup>2</sup> [https://www.aemc.gov.au/sites/default/files/2020-09/ERC0240\\_Note\\_plus\\_amending\\_rule.pdf](https://www.aemc.gov.au/sites/default/files/2020-09/ERC0240_Note_plus_amending_rule.pdf)

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Key consideration	Details
Performance against schedule	The project delivered to the baselined 1 October 2021 and 1 May 2022 delivery dates.
Performance against expected benefits	Not applicable

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## 2. Project performance

### 2.1 Performance against objectives

The project delivered on all 5 Minute Settlement and Global Settlement regulatory requirements and completed \$3.17M under the Business Case budget.

#### 2.1.1 Performance against regulatory allowance

The cost to deliver 5 Minute Settlement and Global Settlement was 2.5 times higher than the allowance, due to the allowance covering only part of the program duration from Jul-21 excluding the CY18 to Jun-21 period.

The internal 5 Minute Settlement and Global Settlement Business Case budget is consistent with other Victorian electricity DNSPs.

**Table 2–1: Allowance performance**

Expenditure	Budget	Actual expenditure	Comments
Capex	10,156,502	17,625,530	Only Jul '21 onwards had an allowance for the Program
Opex	0	270,130	New IFRS accounting rules for Cloud-based solution to be treated as Opex
<b>Total</b>	10,156,502	17,895,660	

#### 2.1.2 Performance against schedule

The project delivered to all the critical milestones.

**Table 2–2: Schedule performance**

ID	Milestone	Date delivered	Comments
1	<b>Implement Compliant meters</b> - replacement and upgrade of Advanced Metering Infrastructure (AMI) metering fleet installations.	<b>Nov-20</b>	Executed from 2019 to Nov-20
2	<b>Detailed Planning Phase</b> - finalise the business and IT changes required and detailed cost estimation for the business case for the Final Delivery Phase.	<b>Sep-20</b>	Executed from Jan-20 to Sep-20
3	<b>Delivery Phase – By 1<sup>st</sup> Oct 2021 –</b> Ensure JEN can receive Type1,2,3,4 five minute data Ensure Type 7 unmetered loads are calculated on a five-minute basis	<b>30 Sep-21</b>	The delivery phase commenced Oct-20

ID	Milestone	Date delivered	Comments
4	<b>Delivery Phase – By 1 May 2022-</b> Business and IT changes required to support Global Settlement	<b>30<sup>th</sup> April-22</b>	
5	<b>Delivery Phase – By 1 Dec 2022-</b> Ensure type 5 meters installed since Dec-2018 can provide five-minute data	<b>30<sup>th</sup> Nov-22</b>	Note that 188 meters of the original ~ 36,000 in scope meters require further remediation due to field dependencies

### 2.1.3 Performance against expected benefits

#### 2.1.3.1 Compliance-driven projects

This project was compliance-driven and undertaken in response to AEMC rule changes:

- 28 November 2017 – 5MS Rule change<sup>3</sup> and
- 6 December 2018 – Global Settlement Rule change<sup>4</sup>.

Jemena was required to invest in this project to maintain compliance as required under its licence conditions. The benefits associated with this project were assessed and justified during this regulatory change process undertaken by the AER.

In addition, the expected benefits of this project were not explicitly discussed or analysed in the business case. Rather, the business case adopted a least-cost approach to ensure Jemena complies with the obligations outlined above. Therefore, the realised economic benefits of this project have not been discussed in this PIR.

<sup>3</sup> [https://www.aemc.gov.au/sites/default/files/2020-09/ERC0201\\_including\\_Delayed\\_implementation\\_of\\_5MS\\_%26\\_GS\\_for\\_publication\\_minus\\_old\\_note\\_0.pdf](https://www.aemc.gov.au/sites/default/files/2020-09/ERC0201_including_Delayed_implementation_of_5MS_%26_GS_for_publication_minus_old_note_0.pdf)

<sup>4</sup> [https://www.aemc.gov.au/sites/default/files/2020-09/ERC0240\\_Note\\_plus\\_amending\\_rule.pdf](https://www.aemc.gov.au/sites/default/files/2020-09/ERC0240_Note_plus_amending_rule.pdf)