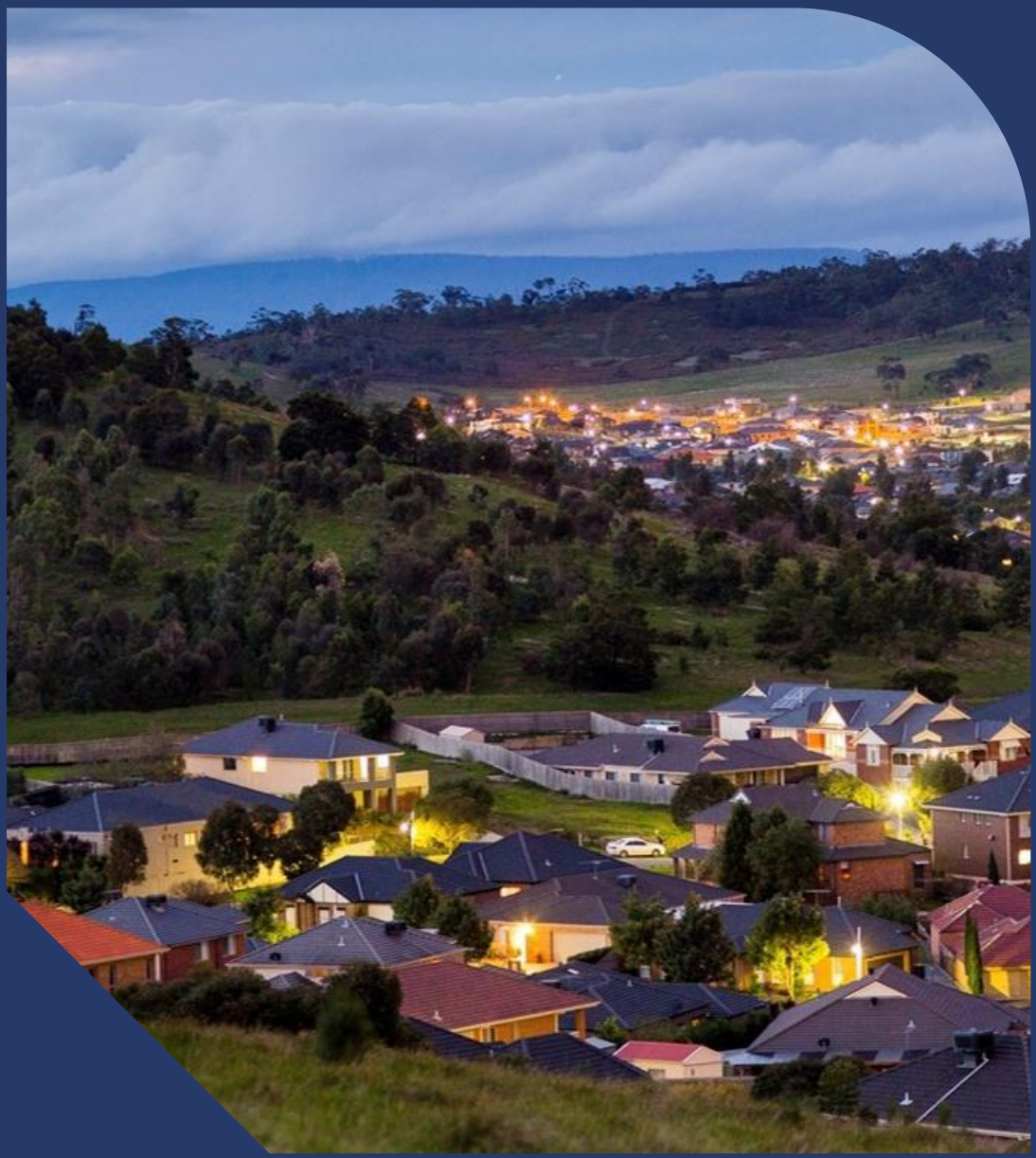
AusNet

Electricity Distribution Price Review FY2027 to FY2031 (EDPR 2027-31)

Business case: Market Systems

Date: January 2025



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Document history

DATE	VERSION	COMMENT
14/10/2024	V1.0	Initial draft business case for review
09/12/2024	V2.0	Updated draft incorporating review and SME input
06/01/2025	V3.0	Final business case document

Related documents

DOCUMENT	VERSION	AUTHOR
Technology Strategy and Investment Plan	V3.0	AusNet Services
AusNet EDPR 2027-31 Digital Program NPV Model	V3.0	AusNet Services

Approvals

POSITION	DATE
Digital & Technology – Strategy, Regulatory and Partner Management	January 2025
Digital & Technology – Architecture	January 2025
Distribution – Strategy and Regulation	January 2025
Gas and Metering – Strategy and Regulation	January 2025

1. Executive summary

In July 2024, the Australian Energy Market Operator (AEMO) released its business case for investment in Identity and Access (IDAM), Industry Data Exchange (IDX), and Portal Consolidation (PC) capabilities, termed the Market Interface Technology Enhancement (MITE), as part of the National Electricity Market (NEM) Reform Implementation Program. The business case sets out AEMO's final recommendations for IDAM and PC, however the detailed design for migrating existing market services to IDX is not expected to be released until the end of 2025.

To comply with the requirements set out by AEMO, AusNet Services is proposing to undertake a program of investment that will deliver the MITE capabilities in the FY2027 to FY2031 regulatory period. Doing so will address critical security needs, support the NEM Reform Implementation Program, and ensure our market systems are future-ready.

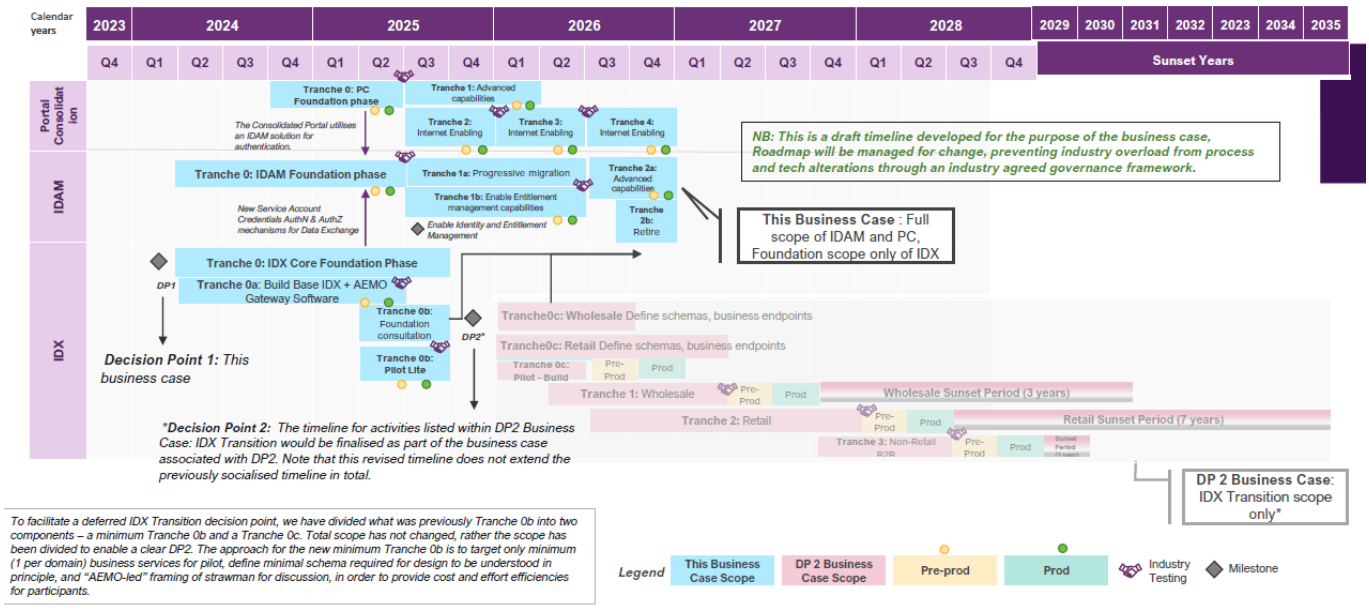
AusNet is required, as a Distribution Network Service Provider (DNSP), to comply with AEMO's new system requirements. This is necessary to ensure compliance with our distribution licence and compliance with our obligations under the National Electricity Rules (NER) clause 7.16.2(a)-(c) and forthcoming changes to B2B (business to business) Procedures under clause 7.17 of the NER. Failure to comply with these requirements would result in the inability to:

- maintain multiple obligations under the NER, including civil penalty requirements to provide a National Meter Identifier (NMI) for new connections as per NER 7.8.2(d)(2); and
- provide metering data files to AEMO for market settlements as per NER 7.11.1(c).

This could lead to significant financial and non-financial repercussions, including civil penalties and loss of licence.

As per the Draft Phased Investment Delivery Timeline endorsed by the AEMO board (**Figure 1** below), AusNet's work on these three critical systems will commence during the current regulatory period (i.e. before the start of the FY2027-31 regulatory period). However, given the ongoing industry engagement on detailed design and scope, and transition extending beyond the current regulatory period, it is expected that a material portion of full implementation of the systems' uplift will take place during the upcoming regulatory period. As a result, we have included $18.5M of non-recurrent expenditure in this EDPR 2027-31 proposal.

Figure 1 - AEMO's Draft Phased Investment Delivery Timeline[1]



To achieve compliance with AEMO's new market systems, AusNet has developed the following two options to deliver the requirements set out by AEMO:

- AusNet's Option 1 proposes to upgrade our existing systems to achieve compliance with the requirements set out under AEMO's Option 2A. "Strategic target state moderated by retaining legacy payloads". This is our recommended option.

[1] Extract taken from AEMO, 'Foundational & Strategic Initiatives Business Case', July 2024, p 21.

- AusNet's Option 2 proposes to replace our existing systems with a new platform to achieve compliance with the requirements set out under AEMO's Option 2A. "Strategic target state moderated by retaining legacy payloads".

A "Do Nothing" option was not considered as part of our options analysis as this was not considered a credible option given that it would result in AusNet being non-compliant with its regulatory obligations.

Our recommended option is Option 1, as it effectively meets our compliance requirements at lower cost, representing a more prudent and efficient use of our resources as a regulated DNSP.

While the need to invest to comply with changes to AEMO's market systems is clear, it is recognised that the final scope of the changes and timeframes have not yet been finalised. The required IDAM and PC scopes of works and cost estimates have been largely identified and recommended to proceed by AEMO. However, in its most recent publication[2], AEMO has deferred the decision on the IDX transition phase to the end of 2025 due to uncertainty surrounding the phasing and scope of the IDX transition. AEMO has indicated that it intends on releasing a new business case for the IDX transition in Q4 2025 to industry with greater certainty and scope over the costing of the IDX transition. AusNet will continue to engage with AEMO through the industry consultation processes, and will adapt our implementation scope and timeline to deliver the requirements once finalised.

[2] Foundational and Strategic Initiatives business case, AEMO, July 2024

2. Context

2.1. Market systems overview

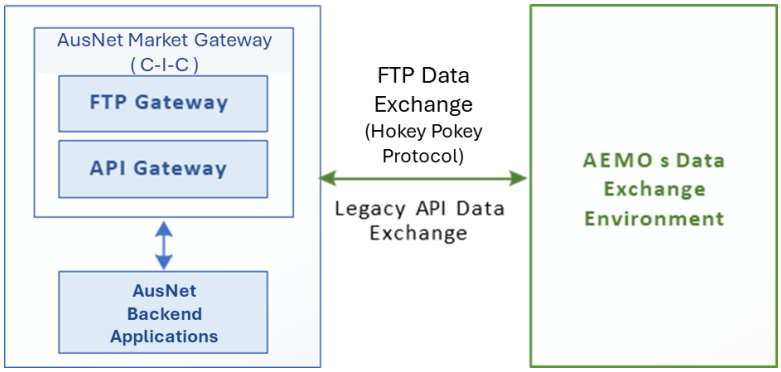
Market systems are comprised of the Australian Energy Market Operators' (AEMO) data exchange, AusNet's backend systems, and the gateway systems and protocols that enable data to be exchanged between AusNet and AEMO. The key information that is transferred between the businesses through the market systems is:

- Standing data (NMI characteristic data that is relatively static) transaction
- Meter data transactions e.g. power readings
- Service order transactions e.g. connection, disconnection and/ meter change requests

Error! Reference source not found. provides a simplified overview of the current elements of AusNet's market systems. AusNet has implemented [CIC](an integration platform) as their Participant Gateway. The [CIC] platform receives information from AEMO's systems via the Hokey Pokey protocol and transforms it into the formats required by AusNet's backend systems. The same process occurs in reverse to transform data from AusNet's systems into the format required for communication to AEMO through the Hokey Pokey protocol.

The AEMO Market Interface Technology Enhancement (MITE) program proposes replacing the current security model, protocols and message formats with more flexible, secure and faster versions.

Figure 2 Current system overview

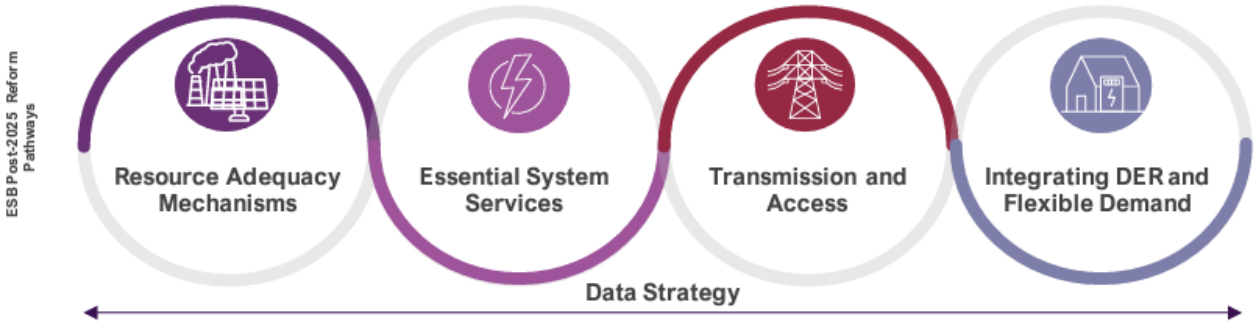


2.2. NEM reform and strategic initiatives

In 2023, the Energy Security Board (ESB), the Australian Energy Market Operator (AEMO), the Australian Energy Market Commission (AEMC) and the Australian Energy Regulator (AER) established a roadmap and series of initiatives to reform and update the National Electricity Market (NEM). Many of the security related reforms are driven by the Security of Critical Infrastructure Act (SOCI Act).

More than 30 initiatives have been proposed as a part of these comprehensive reforms, including the Market Interface Technology Enhancements (MITE) relevant to this business case as part of the foundational Data Strategy.

Figure 3: ESB reform pathways and data strategy



In early 2024, a new roadmap was published to transform the National Electricity Market (NEM) and ensure it is fit-for-purpose post-2025. In July 2024 a revised business case supporting the need and benefits of the reforms was published by AEMO.

The post-2025 NEM reform is a highly complex program that will require significant investment from participants across the market, including Distribution Network Service Providers like AusNet.

Critical drivers for these changes include:

- **Deliverability of future reforms** – A need to allocate resources across NEM reform initiatives in a way that balances fit-for-purpose technology foundations and consumer outcomes with deliverability of reform and implementation/operational expenses.
- **Addressing residual security risks** – As AusNet's operating environment and assets become more interconnected and digital solutions play a larger role in the management and operation of the grid, the number and diversity of places where we could be vulnerable to cyber attack increases.
- **Addressing industry pain points** – The increasing complexity of existing market interface systems requiring the use of different access points, protocols, formats and standards by industry users is resulting in higher operational costs for Registered Participants and accredited service providers across the sector.

2.3. Options identified by AEMO

AEMO has proposed changes to three market interface technology systems that make up the MITE program. The upgrade of these systems is considered a critical prerequisite for the broader NEM Reform agenda and requires investment and effort from both AEMO and market participants such as AusNet. The key components that comprise AEMO's MITE program relate to:

- **Identity and Access Management (IDAM)**: This new identity management system, using OAuth 2.X authentication, client credentials flow, and mutual Transport Layer security (mTLS), will reduce the need for participants to have multiple credentials, and will reduce the potentially vulnerable areas and locations. This will have the effect of shoring up our identify management against external attacks, and improve our ability to manage a growing volume of identities as distributed energy resources and smaller generators become more prevalent.
- **Industry Data Exchange (IDX)**: This new data exchange system will ensure the ability to manage data as it increases in volume and frequency, while minimising latency and improving security and adherence to standards.
- **Portal Consolidation (PC)**: Consolidating portals will enable a unified stakeholder experience that ultimately will improve the security of accessing AEMO services.

AEMO has developed options that propose different degrees of change and timeframes for undertaking the change to the market interface technology systems identified above. The AEMO MITE identified options are:

- **Option 0 – Do nothing**: AEMO has stated that the 'Do Nothing' option – that is retaining current systems and protocols and not undertaking investments in foundational services to modernise their system – is not a credible option and hence it is not considered further by AEMO.
- **Option 1 – Minimum security compliance**: Implement minimum changes to only address the most severe security risks and establish controls to help manage remaining risks. This option will focus on IDAM and Portal solutions that are minimum viable products addressing legislatively driven requirements such as SOCI Act and Australian Energy Sector Cyber Security Framework (AESCSF), and an IDX solution that will enhance cyber security on the existing system
- **Option 2A – Strategic target state**: This is the strategic target future state, as collaboratively designed with industry to address identified industry pain points, enable deliverability of future reforms and materially address security risks. This option proposes, through a phased approach, to implement a holistic IDAM capability, deliver IDX channels/protocols and payload formats and a consolidated Portal functionality.
- **Option 2B – Strategic target state moderated by retaining legacy payloads**: This is a hybrid option that dilutes the full benefits of target state in order to reduce estimated costs. It does not address all industry pain points. This option proposes the same IDAM and Portal solution as Option 2A, however the IDX solution will retain the payload formats for legacy services.

Further detail of the scope of each of the options is set out in Table 1 below.

Table 1 – Options for each component of the MITE program considered by AEMO

FOCUS AREA	OPTION 1	OPTION 2A	OPTION 2B
Identify and Access Management (IDAM) To guard against security vulnerabilities and manage an increased number of identities due to increasing numbers of CER and small generators.	Implement Multi Factor Authentication to enable two step authentication for the browser services Enhance self-certification management process	Secure Identity and Authorisation target state enabled. Rationalisation of identity stores and solutions. Improved audit and monitoring.	Same as Option 2A
Industry Data Exchange (IDX) To manage increase frequency and volume of data transfer with lower latency and migrating legacy services.	Migrate from legacy industry standard "File Transfer Protocol" to contemporary "Secure File Transfer Protocol" Move Application Programming Interfaces (APIs) to OAuth authentication and authorisation pattern Deliver secure solution for large file transfer Progressive transition from insecure legacy protocols to secure IDX foundational protocols Further reduction in attack surface area	New services established on target state, secure framework. Containment of growth of attack surface area. Progressive transition from insecure legacy protocols to secure IDX foundational protocols. Further reduction in attack surface area.	As per Option 2A but retention of existing protocols for legacy services. Any new services will align with the target state (Option 2A) protocols.
Portal Consolidation (PC) To improve cyber security and address industry pain points caused by multiple portals, protocols, formats and standards for different interfaces.	Enhance existing browser services to integrate with IDAM to address legislative requirements Retire standalone MSATS browser URL, now available in Markets Portal	Secure Portal framework provided Internet enabled services leverage secure framework	Same as Option 2A

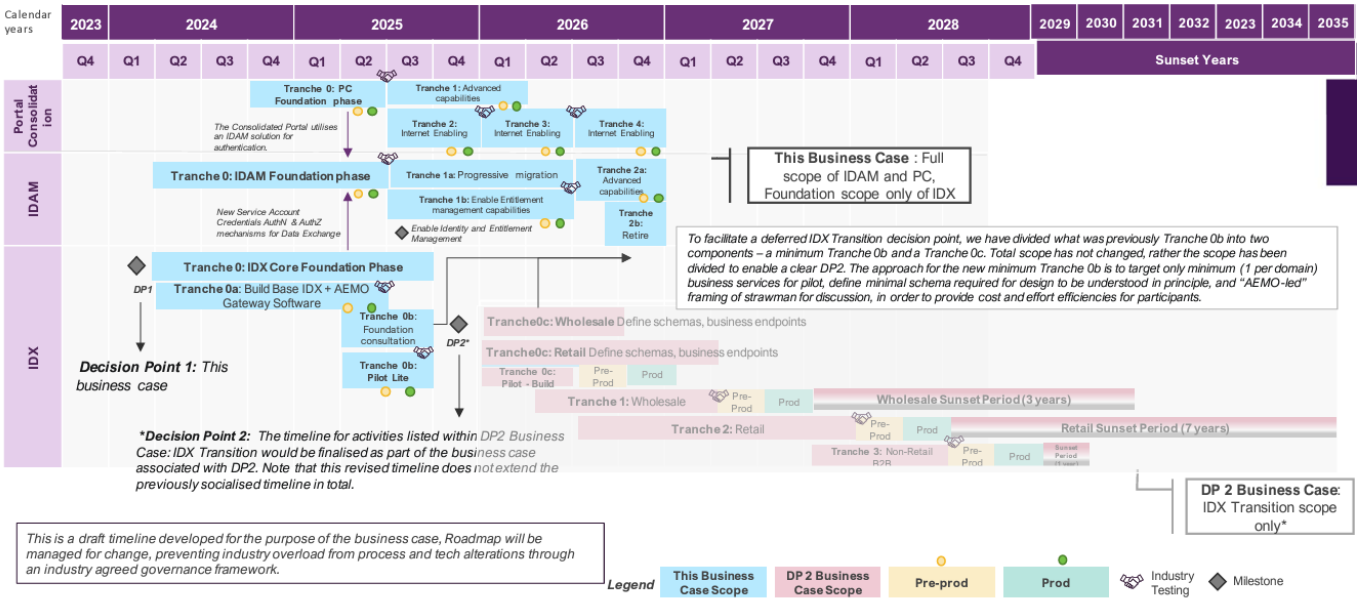
2.4. Some uncertainties remain

AEMO has developed a Draft Phased Investment Delivery Timeline which is shown in Error! Reference source not found.**4**. As per this delivery timeline, AusNet is required to work on these three critical systems before the start of the FY2027-31 regulatory period, to mitigate risks and ensure continued compliance.

AEMO's most recent business[3] case identifies that the industry cost impacts are currently highly uncertain in relation to the IDX transition. To address this issue, while ensuring that work is able to commences on the implementation of IDAM and Portal Consolidation, AEMO has deferred the decision on the IDX transition phase to the end of 2025. In relation to IDX there are two options still under consideration by AEMO that have different expected costs. While it is not possible for AusNet to fully scope and cost the necessary investment ahead of this decision, we have a draft technical specification and a draft transition plan due in May 2025 to help inform our costing of options. The key difference between the two options being considered is the timeframe of the transition and when legacy protocols will be retired.

[3] Foundational and Strategic Initiatives business case, AEMO, July 2024

Figure 4 - AEMO's Draft Phased Investment Delivery Timeline[4]



2.5. Investment planned for the 2021-26 regulatory period

AusNet's work on these three critical systems will begin before the start of the FY2027-31 regulatory period, consistent with the Draft Phased Investment Delivery Timeline developed by AEMO. As this is a recent development within the industry, at the time of writing this business case the recommendation by AEMO to implement specific parts of the reform had only just been published in the Foundational and Strategic Initiatives business case. Consequently, at the time of developing this EDPR business case, AusNet's internal project development had only recently commenced, and detailed and specific estimates for costs expected to be incurred during the current period are still being developed and refined.

While initial expenditure will occur during the current regulatory period, the final implementation of the required systems' uplift will take place during the upcoming FY2027-31 regulatory period. In particular, investments for the IDAM and PC systems will be initiated in this period but investment for the IDX works is expected to start during the FY2027-31 regulatory period (as per the delayed decision point on IDX transition). Non-recurrent expenditure for continuation and delivery of all of these programs in the FY2027-31 period is included in this EDPR proposal (refer to Section 3).

[4] Extract taken from AEMO, 'Foundational & Strategic Initiatives Business Case', July 2024, p 21.

3. Identified need

The primary need to undertake the investment proposed by this business case is to maintain compliance with the NER and distribution licence requirements.

In February 2024, AEMO released its draft business case for investment in the MITE program as part of the NEM Reform Implementation Program. AEMO is expected to continue along its decision-making process through to 2026.

As a Distribution Network Service Provider (DNSP), AusNet is required to comply with AEMO's new system requirements under the National Electricity Rules (NER) clause 7.16.2(a)-(c) and forthcoming changes to B2B (business to business) Procedures under NER section 7.17. Failure to comply with these requirements would result in the inability to:

- maintain multiple obligations under the NER including civil penalty requirements to provide a NMI for new connection as per NER 7.8.2(d)(2), and
- provide metering data files to AEMO for market settlements as per NER 7.11.1(c).

Not maintaining compliance with the market system requirements would result in significant financial and non-financial repercussions, including civil penalties and loss of licence, such as:

- Significant financial impacts for AusNet as we would not be able to receive revenue from tariffs due to being unable to make settlements through the market systems.
- Loss of distribution licence due to non-compliance with regulatory requirements
- Civil penalties due to non-compliance with requirements of the NER, SOCI Act and AESCSF.
- Increased vulnerability to cyber security risks as the legacy systems will not be adequately robust and secure.

4. Options assessed

This section provides an overview of the options identified to enable AusNet to meet AEMO's new market system requirements. In developing these options, we considered alternative approaches for implementing the system changes required by AEMO. Both options consider a different type of implementation that will achieve compliance through a different system architecture approach, with differing cost and risk.

The AER's guidance note – "Non-network ICT capex assessment approach" of November 2019 notes that compliance expenditure is unlikely to have a positive net present value. However, it has an expectation that a network will undertake multiple timing and scope options of the investments (to demonstrate prudency) and options for alternative systems and service providers (to demonstrate efficiency). As this program is a compliance requirement, we have focused assessment on options of alternate systems and providers, and a 'Do nothing' or 'retain existing systems and processes' option is not considered a credible option and therefore was not assessed.

Based on the most recent information available from AEMO, AusNet considers that AEMO's Option 2A is most likely to proceed so our options have been developed based on implementing AEMO business case Option 2A.

Table 2 - Options considered

OPTION	SUMMARY
Option 1: Upgrade existing systems to comply with obligations	Upgrade existing systems to comply with the requirements set out in the July 2024 Business Case Package provided by AEMO.
Option 2: Complete replacement of existing systems with new platform to comply with obligations	Complete replacement existing systems with a new platform to comply with the requirements set out in the July 2024 Business Case Package provided by AEMO.

4.1. Approach to assessment of options

The options have been assessed for compliance with the requirements set out by AEMO, the cost of implementing the option, deliverability and risk. Risks have been assessed in accordance with AusNet's Enterprise Risk Management Framework.

Due to the ongoing analysis by AEMO on their preferred option, we have relied on AEMO's assessment of industry costs to achieve the outcomes and have pro-rata'ed the value based on the number of connections per DNSP in the NEM. As this need is fully driven by the obligation to be compliant with AEMO's systems and mandate, benefits and NPV of options have not been assessed.

The preferred option is selected on the ability to address the identified needs (requirements of AEMO's preferred option), implementation and delivery risk, and least cost to customers.

Key assumptions are:

- Industry costs developed and published by AEMO are appropriate for the purpose of budgeting for the required investment given the uncertainty of the requirements, timeframes and preferred solution.
- Pro-rata'ing the cost developed by AEMO based on the number of NMIs per DNSP in the NEM is an appropriate approach. AEMO has only provided the total industry cost and not indicated costs for individual DNSPs.
- The timing of the cost has been assumed to align with the most recent road map.
- For IDX, Option 2A has been assumed as this is most consistent with the direction indicated in the July 2024 business case, however the final recommendation has been deferred to the end of 2025.
- The difference between our options is how our systems are updated, upgraded or replaced to meet the requirements set by AEMO.

4.2. Options analysis

The two identified credible options each address the required needs by improving our systems and functionality. The resulting system functionality is forecast to provide the same outcomes, however the system architectures to achieve the functionality is different and have different costs and risks.

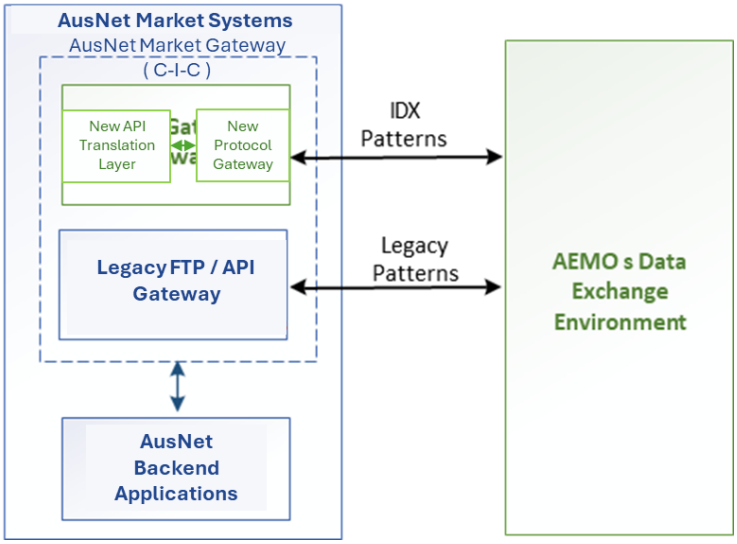
4.2.1. Option 1: Upgrade existing systems to comply with obligations

This option proposes to retain AusNet's current systems and implement upgrades to comply with the requirements set out in the July 2024 Business Case Package provided by AEMO. This scope is based on the AEMO business case Option 2A.

For the IDX changes proposed by AEMO, this option proposes to retain [CIC] and update the transformations required to adapt it to the revised protocols and message formats prescribed by AEMO. This will enable the existing logic and connections between AusNet's backend systems and the gateway to be retained, limiting the work required to achieve the outcome. A simplified overview of the resulting system configuration is shown in **Figure 5**. A detailed overview is shown in **Appendix A**.

[CIC] is a platform designed for the transformation and manipulation of data and is used extensively throughout the AusNet business. A key benefit of retaining [CIC] is reduced implementation cost and effort, and AusNet's existing familiarity and capabilities with the platform.

Figure 5 - Option 1 system architecture overview



For the IDAM and Portal changes, the solution remains the same for both options as it will leverage AusNet's [CIC]federated authentication architecture.

As the final actions for the full implementation of the systems' uplift will take place during the upcoming regulatory period, and as the decision point on IDX transition has been delayed to the end of 2025, we have included $18.5 million of non-recurrent expenditure in this EDPR proposal based on apportioning the AEMO analysis and published total industry costs by number of NMIs per DNSP on the NEM.[5]

This investment will allow AusNet to:

- Continue to operate in the market as a critical infrastructure provider in Victoria, including:
    - Providing services to our customers a sufficiently as possible via Business to Business and Business to Market Protocols for services including Connections, remote and manual energisations, de-energisations, special reads, meter reading, retailer customer transfers, and life support maintenance
    - Providing metering data to retailers and AEMO that is essential for customer billing, market settlements and our network billing revenue.

[5] Refer AusNet EDPR 2027-31 Digital Program NPV Model

    - Providing services to other market participants including retailers and AEMO
- Remain compliant to our obligations as a DNSP
- Maintain market connectivity and interfaces across market participants
- Ensure continued security of market interfaces

This option includes sufficient investment to modify AusNet's systems and processes to deliver the targeted level of functionality for IDAM and PC, and includes achievement of the required target state for IDX:

- **Foundation Build** to be delivered as per target state
- **Target State Data Definitions** to be delivered as per target state
- **Data Exchange Mechanisms** (e.g. Security, Channels, Protocols) for legacy interfaces to be delivered as per target state
- **Payload Formats** for legacy interfaces to be transitioned to the new protocols and formats

Given the end-2025 deadline for a final decision on the specific option to be pursued for transitioning to the new IDX system, we consider that this represents the level of investment needed to proactively comply with the requirements set out in the July 2024 Business Case Package provided by AEMO.

Table 3 Forecast expenditure for Option 1 ($'million, real FY24)

Cost item	FY27	FY28	FY29	FY30	FY31	Total
CAPEX	$7.5	$11.0	-	-	-	**$18.5**
OPEX	-	-	-	-	-	-
Total EDPR cost	**$7.5**	**$11.0**	**-**	**-**	**-**	**$18.5**

The primary benefit associated with this option is compliance to AusNet's obligations as a distribution license holder and critical participant in the National Energy Market. Failure to comply with these requirements would result in the inability to maintain multiple obligations under the NER leading to significant financial and non-financial repercussions, including civil penalties and loss of licence.

This investment will also result in the avoidance of a significant risk of future increases in operating cost due to maintenance of legacy systems which will need to be upgraded in future regulatory periods. This is because technology costs and labour costs associated with process change tend to increase over time.

Table 4 Summary of Option 1's ability to meet identified capability gaps

Identified capability gap	Achieved?
Identity and Access Management (IDAM)	Yes
Industry Data Exchange (IDX)	Yes
Portal Consolidation (PC)	Yes
Compliance with NER obligations and licence obligations that require the use of AEMO systems	Yes

The figure below shows the risk level matrix to which we have assessed each of risks within the options. The risk assessment reflects the residual risk after completion of the upgrades detailed in this option. Risks of highest concern are rated red, whereas those of lowest concern are rated blue.

Figure 6 – Option 1 risk assessment

		Consequence				
		1	2	3	4	5
Likelihood	Almost certain					
	Likely					
	Possible					
	Unlikely					
	Rare		R1.2	R1.1		

Legend
A
B
C
D
E

	RISK	CONSEQUENCE	LIKELIHOOD	RISK RATING
R1.1	Risk of non-compliance, causing delay to scheduled NEM reform initiative timeline for short term (i.e. next 5 years) initiatives	Level 3. Significant damage to reputation with AEMO and other NEM participants from non-compliance	Rare	D
R1.2	Risk of future increases in operating cost due to maintenance of legacy systems	Level 2. Material increases in costs possible in the next 10 years	Rare	E

The deliverability risk of this option is assessed as low, given the functionality is being implemented in AusNet's existing systems have integrations with AusNet's broader systems and which are well understood by the organisation.

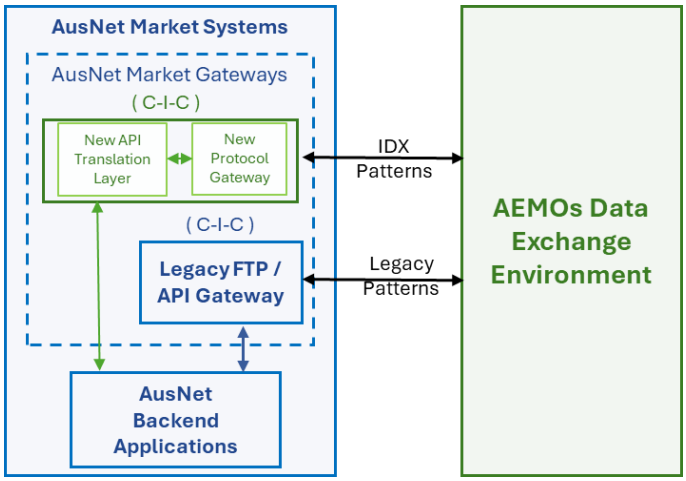
Overall, this option this option meets the requisite requirements with low residual risk, low deliverability risk and lower cost than Option 2. As a result, it is the recommended option.

4.2.2. Option 2: Replace systems with new platform to comply with obligations

This option proposes to replace the current systems and implement a new system to comply with the requirements set out in the July 2024 Business Case Package provided by AEMO. This scope is based on the AEMO business case Option 2A.

For the IDX changes proposed by AEMO, this option proposes to replace the existing [CIC] platform and implement a new system, likely to be Azure Integration Services, to comply with the protocols prescribed by AEMO. A simplified overview of the resulting system configuration is shown in **Figure 7**, with key differences to Option 1 shown. For the IDAM and Portal changes, the solution remains the same as Option 1 as it will leverage AusNet's Azure federated authentication architecture.

Figure 7 Option 2 system architecture overview



This option will require all logic and connections between AusNet's backend systems and the gateway to be redesigned, resulting in a significant amount of work and increased level of delivery risk, while not providing any material improvements in functionality, security or speed. In addition, as a new platform AusNet will need to train staff to use it and ensure the skills are retained within the business, hence potentially creating a capability risk.

This option will require greater capex due to implementing a new system plus redesigning both sides of the integration; both to AEMO and to AusNet's backend systems. Leveraging [CIC] will also result in an uplift of Opex related to the cloud service costs.

Our estimate of the costs to implement this option are shown in **Table 5**. As the final actions for the full implementation of the systems' uplift will take place during the upcoming regulatory period, and as the decision point on IDX transition has been delayed to the end of 2025, we have estimated $22.9M of non-recurrent expenditure in this EDPR proposal based on apportioning the AEMO analysis and published total industry costs by number of NMIs per DNSP on the NEM. This is materially higher than Option 1 and does not include the risk cost of delivery delays or integration.[6]

While this option has not been researched in full detail due to the current uncertainty regarding the final requirements of AEMO, we have identified alternative platforms that would enable this option to be implemented if found to be preferred.

Table 5 Forecast expenditure for Option 2 ($'million, real FY24)

Cost item	FY27	FY28	FY29	FY30	FY31	Total
CAPEX	$9.2	$12.8	-	-	-	$22.0
OPEX	$0.1	$0.2	$0.2	$0.2	$0.2	$0.9
Total EDPR cost	$9.3	$13	$0.2	$0.2	$0.2	$22.9

The primary benefit associated with this option is compliance to AusNet's obligations as a distribution license holder and critical participant in the National Energy Market. Given that this allows for the full scope of changes currently proposed by AEMO to be fulfilled, it effectively guarantees ongoing compliance regardless of the final decision on IDX that is made. This option provides an opportunity to clean up the existing interfaces by starting new. It also moves the interface to the cloud reducing the dependency on [CIC]. The Legacy interface will still be required to support the transition and will be kept for existing Gas market services.

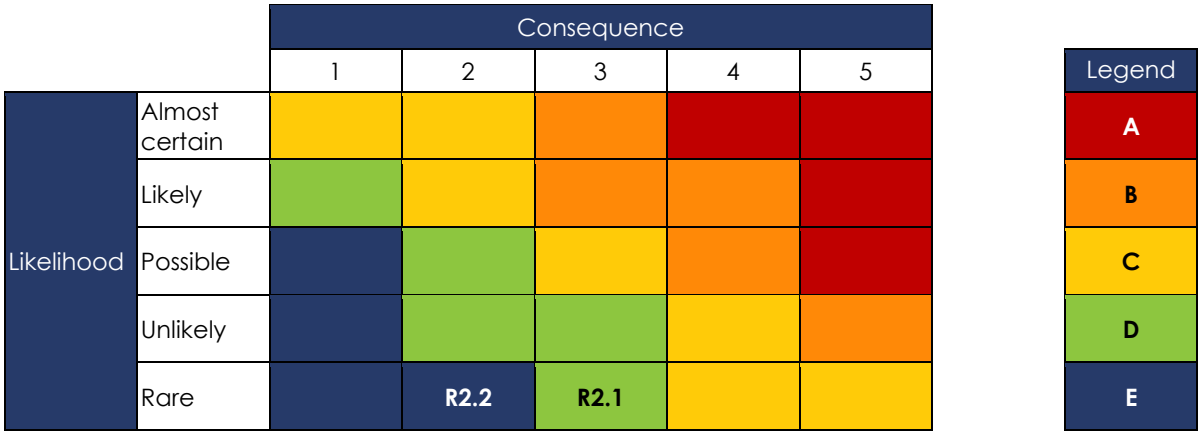
Table 6 Summary of Option 2's ability to meet identified capability gap

Identified capability gap	Achieved?
Identity and Access Management (IDAM):	Yes
Industry Data Exchange (IDX):	Yes
Portal Consolidation (PC):	Yes
Compliance with NER obligations and licence obligations that require the use of AEMO systems	Yes

The figure below shows the risk level matrix to which we have assessed each of risks within the options. Risks of highest concern are rated red, whereas those of lowest concern are rated blue. The risk assessment reflects the residual risk after completion of the upgrades, which as detailed above deliver the required outcomes and hence residual risks are consistent with Option 1.

[6] Refer AusNet EDPR 2027-31 Digital Program NPV Model

Figure 8 – Option 2 risk assessment



	RISK	CONSEQUENCE	LIKELIHOOD	RISK RATING
R2.1	Risk of non-compliance, causing delay to scheduled NEM reform initiative timeline for short term (i.e. next 5 years) initiatives	Level 3. Significant damage to reputation with AEMO and other NEM participants from non-compliance.	Rare	D
R2.1	Risk of future increases in operating cost due to maintenance of legacy systems	Level 2. Material increases in costs possible in the next 10 years.	Rare	E

Option 2 will provide the same benefits as Option 1, delivering required compliance functionality and residual risk level. However, we consider that overall, this option has a higher risk compared to option 1 in relation to delivery, integration with existing systems and retention of capability. Our assessment has found that the capital and operational cost to implement this option are also higher than Option 1 and therefore this option is not recommended.

4.3. Preferred option

Based on our analysis above we found Option 1 to be the preferred option. As this project is driven by compliance obligations we have not undertaken a full cost benefit analysis and consider the least cost technically feasible and credible option should be selected.

On this basis, Option 1:

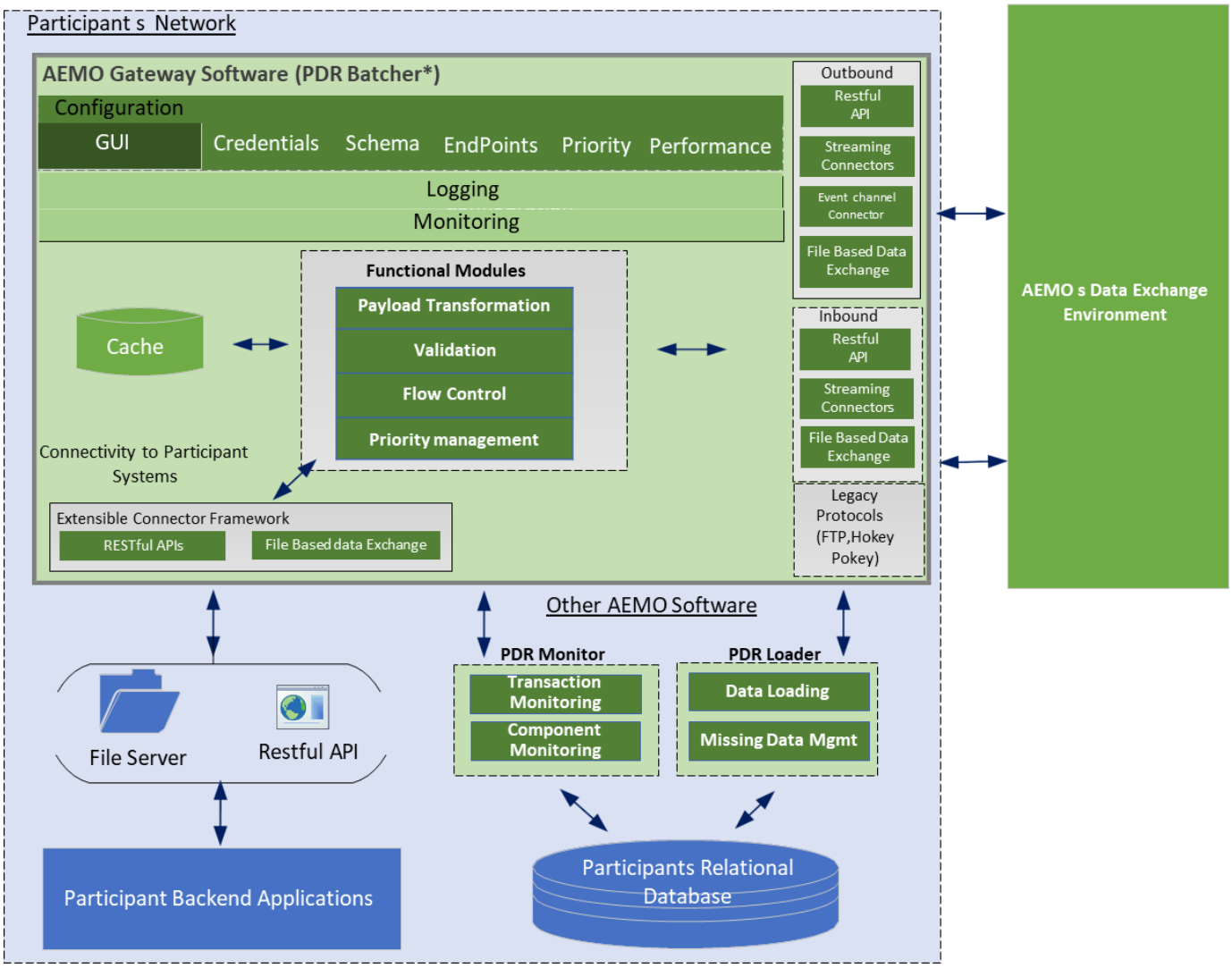
- Enables us to remain compliant with our obligations under the NER and our Distribution licence requirements.
- Minimises risk of implementing the system changes in relation to delivery and integration with existing systems.
- Is the least cost technically feasible option.

We recommend Option 1 is implemented.

A. AEMO Gateway Software

The future state of the gateway software proposed by AEMO.

Figure 9 Proposed future state gateway software



Source: AEMO, Industry Data Exchange-AEMO Gateway Software, NEM Reform Foundational & Strategic initiatives Technical Deep Dive, 02 Aug 2023

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