Basslink Transmission Annual Planning Report 31 October 2026

Contents

Executive Summary 3
1. Introduction 4
1.1. Purpose of this Transmission Annual Planning Report 4
1.2. Disclaimer 4
2. Acronyms and Definitions 5
2.1. Acronyms 5
2.2. Definitions 5
3. Asset Overview 7
3.1. Scope of the Asset 8
3.2. Asset Utilisation 9
4. The Changing Energy Landscape 10
4.1. Role of the Basslink Interconnector 11
5. Asset Management 11
5.1. Asset Performance 13
6. Current 2026 – 2030 Regulatory Period 14
7. Future Asset Requirements 14
7.1. Future Investments Proposed 14
7.1.1. Subsea cable repair capability 14
7.1.2. Control and Protection System Upgrade 15
7.1.3. Primary Plant Lifecycle Management 15
7.1.4. Secondary plant renewal 15
7.1.5. Future Network Developments 16
8. Asset Outlook 16
9. References 17

Executive Summary

APA Group (APA) owns, operates and maintains Basslink, a high-voltage direct current (HVDC) interconnector connecting the Victorian and Tasmanian electricity transmission networks. Basslink Pty Ltd is a registered Transmission Network Service Provider (TNSP) in the National Electricity Market (NEM) as prescribed by the National Electricity Rules (NER), following its transition from a Market Network Service Provider (MNSP) to a regulated TNSP on 1 July 2026. APA has prepared this Transmission Annual Planning Report (TAPR) in alignment with the requirements of rule 5.12 of the NER.

This TAPR provides key asset planning information for Basslink. It outlines the factors influencing Basslink's ability to provide a reliable and secure HVDC transmission service and summarises the current and future capital and operational initiatives required to maintain asset capability, availability and performance. It also considers Basslink's future role and investment requirements as the surrounding transmission network and NEM continue to evolve.

Basslink provides 500 MW of continuous bidirectional interconnection between Tasmania and Victoria, with dynamic transfer capability of up to 630 MW for short periods. Its value is not defined solely by energy throughput. As a regulated transmission asset, Basslink provides dependable inter-regional transfer capability that can respond to changing generation, demand, network and power-system conditions in Tasmania and Victoria

As the transmission network evolves, including through the Marinus Link project and further development of Tasmania's renewable energy resources, Basslink is expected to continue providing important interconnection capability between Tasmania and the mainland. APA continues to engage with AEMO, TasNetworks, VicGrid and other stakeholders to understand emerging network requirements, including the future integration and operation of Marinus Link and associated System Protection Scheme requirements.

Maintaining Basslink's safe, reliable and efficient operation through prudent lifecycle management of ageing and obsolete equipment therefore remains a key focus of its forward asset management strategy. Based on current asset management assessments and planning assumptions, APA does not forecast any material asset de-ratings, asset retirements, constraints or inability to meet network performance requirements over the 10 year planning period.

1. Introduction

1.1. Purpose of this Transmission Annual Planning Report

This TAPR is prepared in accordance with the requirements of the National Electricity Rules (NER). Given the nature of the asset and the absence of any directly connected customers or any expected direct connected customers, this report covers those aspects of the prescribed TAPR content required by the NER where specific comment is possible.

This TAPR has been prepared in accordance with the requirements of rule 5.12 of the NER[1] and the applicable TAPR Guidelines[2]. Basslink's position as an HVDC interconnector, including the absence of directly connected customers or generators, means that certain prescribed information may not arise or may have limited application.

The purpose of this report is to present key factors impacting the future safety and reliability of the Basslink high voltage direct current (HVDC) transmission asset. It describes the associated asset planning needs and the capital investment being considered by APA to address asset objectives.

This report looks to identify the need and opportunity for improvements in efficiency, reliability, general functionality and potential capacity expansion of the asset in efficiently delivering required services. It considers the forecast asset and network investment requirements over the asset lifecycle, with greater certainty applied to near-term investments and indicative requirements identified over the longer term.

This TAPR seeks to provide broader stakeholders with an overview of the planning processes and future investment applied to this asset. The aim is to provide information that helps stakeholders understand Basslink’s role and capability within the National Electricity Market and contribute to the future development of the transmission network, where the net benefit is warranted.

1.2. Disclaimer

This TAPR has been prepared by APA for information and planning purposes only and reflects information, forecasts and assumptions available at the date of publication. These may change over time.

Information sourced from AEMO, Network Service Providers and other third parties has been sourced in good faith. Readers should undertake their own assessment and seek appropriate advice before relying on this report.

To the extent permitted by law, APA accepts no liability for loss or damage arising from reliance on this report. Interested parties are encouraged to contact APA directly for more information.

2. Acronyms and Definitions

2.1. Acronyms

Table 1: Acronyms

Acronym	Meaning
AC	Alternating Current
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
ALARP	As Low As Reasonably Practicable
APA	APA Group
DC	Direct Current
HSEH	Health, Safety, Environment and Heritage
HVDC	High-Voltage Direct Current
ISP	Integrated System Plan
MNSP	Market Network Service Provider
MW	Megawatt
NEM	National Electricity Market
NER	National Electricity Rules
NSP	Network Service Provider
SPS	System Protection Scheme
TAPR	Transmission Annual Planning Report
TNSP	Transmission Network Service Provider

2.2. Definitions

For the purposes of this report, the terms below have the meanings set out in the following table.

Table 2: Definitions

Term	Definition
Basslink	The 400 kV HVDC monopole transmission system, with a metallic return, connecting the Victorian and Tasmanian electricity

	networks between Loy Yang in Victoria and George Town in Tasmania.
Basslink Pty Ltd	The entity that operates as the regulated Transmission Network Service Provider for Basslink under the National Electricity Rules.
Converter	Equipment used to convert electricity between AC and DC using power electronic devices and associated electrical and auxiliary equipment.
Converter building	A structure housing the converter and associated electrical and auxiliary equipment, including control, cooling, valve, reactor and indoor AC and DC equipment areas.
Converter station	A site containing the converters, high-voltage switchgear and associated equipment used to convert electricity between AC and DC. Basslink has converter stations at Loy Yang and George Town.
George Town converter station	The Tasmanian converter station connected to the George Town substation by a 220 kV AC overhead transmission line.
Loy Yang converter station	The Victorian converter station connected to the Loy Yang switchyard by a 500 kV AC overhead transmission line.
Metallic return	The dedicated return conductor forming part of Basslink's monopole HVDC transmission system.
Project Marinus, Marinus Link	A proposed new undersea and underground electricity and data interconnector between North West Tasmania and the Latrobe Valley in Victoria.
Interconnector	A transmission system that transfers electricity between regional electricity networks. In this report, the term refers to Basslink's connection between Tasmania and Victoria.
Subsea cable system	The cable bundle crossing Bass Strait between the Victorian and Tasmanian landfalls, comprising the 400 kV DC pole cable, metallic return cable and fibre-optic cable.
Transition station	A facility that connects Basslink's underground cable systems to its overhead transmission lines. Transition stations are in Victoria and Tasmania.
Site	Either or both Loy Yang and George Town converter station sites, as applicable.
Strategic spares	Replacement equipment held or planned to manage asset criticality, equipment obsolescence, manufacturer support limitations and long procurement lead times.
System Protection Scheme	A protection arrangement associated with power-system operation and network integration. The report identifies potential SPS modifications in connection with future Marinus Link integration.

3. Asset Overview

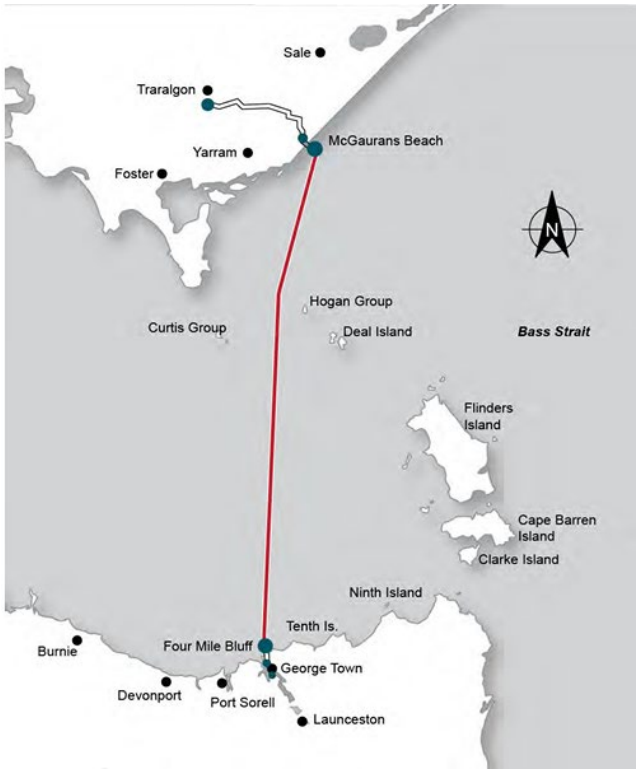
Basslink is a high-voltage direct current (HVDC) transmission system connecting the Victorian and Tasmanian electricity networks between Loy Yang in Victoria and George Town in Tasmania. Commissioned in April 2006, the interconnector provides a continuous transfer capability of 500 MW, with dynamic transfer capability of up to 630 MW for short periods.

The transmission system comprises a 400 kV DC monopole connection with a metallic return, incorporating overhead transmission lines, underground and subsea HVDC cables, transition stations and converter stations located at Loy Yang and George Town. The converter stations convert electricity between alternating current (AC) and direct current (DC), enabling bidirectional electricity transfer between the Victorian and Tasmanian transmission networks.

The Bass Strait crossing comprises a subsea cable bundle containing the 400 kV DC pole cable, metallic return cable and fibre-optic cable, connected at each end to underground and overhead transmission sections forming the wider interconnector.

Power transfers across Basslink are scheduled and dispatched by AEMO as part of the National Electricity Market's central dispatch process.

Figure 1: Map of Basslink



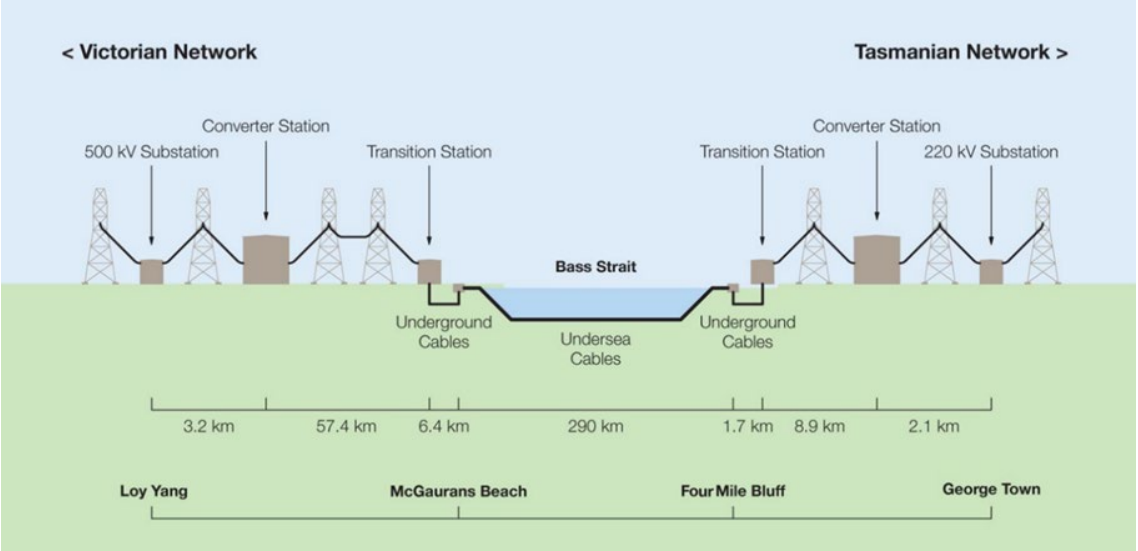
3.1. Scope of the Asset

Basslink connects the Tasmanian electricity grid to the Victorian electricity grid through a 400 kV direct current (DC) monopole electricity connector with a metallic return. Basslink extends from the Loy Yang connection point in Victoria to the George Town connection point in Tasmania. Converter stations located in Victoria and Tasmania facilitate the conversion of alternating current (AC) to direct current (DC) and vice versa, enabling efficient long-distance electricity transfer between the two regions.

The interconnector comprises the following major asset systems and associated infrastructure:

- A 500 kV alternating current (AC) overhead transmission line running from Loy Yang switchyard (point of connection to Victorian electricity grid) at the Loy Yang converter station where AC electricity is converted to DC electricity.
- A 400 kV DC overhead transmission line extending from Loy Yang converter station to the transition station at Giffard West, northwest of McGaurans Beach on the Victorian coast.
- 400 kV DC underground pole, metallic return, and fibre-optic cables from the transition station to McGaurans Beach, the Victorian landfall.
- A subsea cable bundle (400 kV DC pole, metallic return, and fibre-optic cables) running initially southeast from the Victorian landfall and then south across Bass Strait to the Tasmanian landfall east of Four-Mile Bluff.
- 400 kV DC underground pole, metallic return, and fibre-optic cables from the Tasmanian landfall to the transition station located at Aerodrome Road.
- A 400 kV DC overhead transmission line from the transition station to the George Town converter station.
- A 220 kV AC overhead transmission line from the converter station to the George Town substation, the point of connection to the Tasmanian electricity grid.
- Converter stations in Victoria and Tasmania that convert AC to DC and DC to AC.
- Transition stations in Victoria and Tasmania that connect the underground cables to the overhead lines.

Figure 2: Basslink Asset



3.2. Asset Utilisation

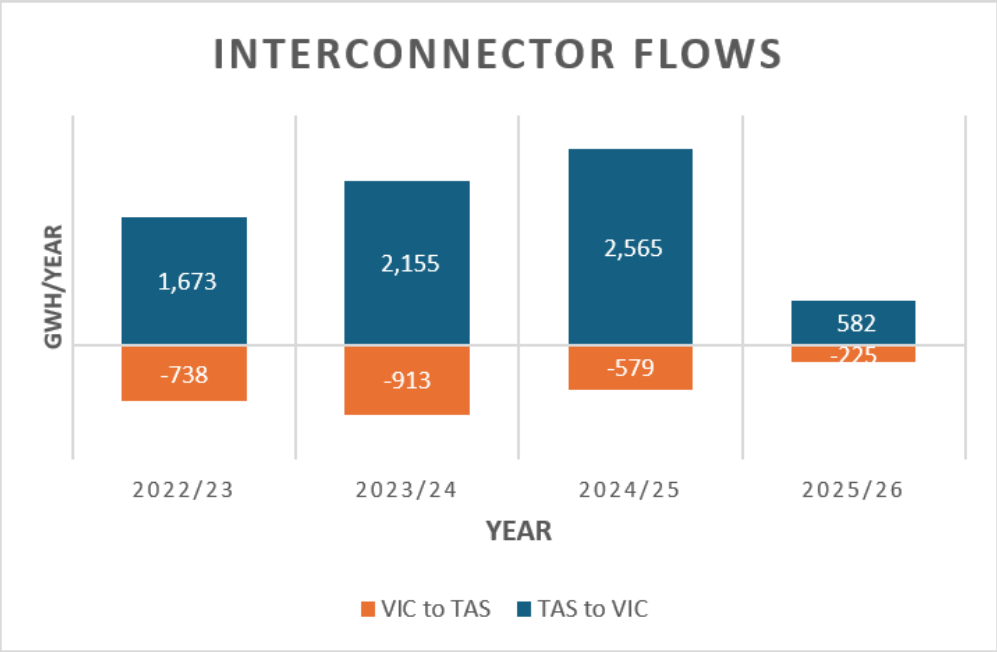
During FY2025–26, Basslink flows were materially below the 3,144 GWh transferred during FY2024–25. The reduction occurred following the expiry on 30 June 2025 of the previous Basslink network services agreement with Hydro Tasmania and the subsequent operation of Basslink as a Market Network Service Provider (MNSP). Under the previous arrangement, Basslink capacity was generally bid into the NEM at or near $0/MWh.

As an MNSP during FY2025–26, APA submitted non-zero bids for Basslink transfer capability into the NEM. The relatively limited spot price differential between Victoria and Tasmania meant the conditions required for dispatch were not always met, resulting in periods of reduced or zero flow.

Under the regulated framework, Basslink's utilisation reflects NEM dispatch outcomes, prevailing regional supply and demand conditions, generation offers and network constraints. Accordingly, utilisation in FY2026-27 is expected to be more reflective of the underlying economic and power-system value of interconnection between Tasmania and Victoria.

Historical flows across Basslink are presented in Figure 3.

Figure 3: Basslink Historical Utilisation



4. The Changing Energy Landscape

AEMO's 2026 Integrated System Plan (ISP)[3] reinforces the need for an increasingly interconnected National Electricity Market (NEM), with transmission, renewable generation, energy storage and firming capacity supporting the transition to a power system with increasing levels of variable renewable generation. AEMO's Optimal Development Path includes both stages of Marinus Link and this will materially increase transfer capability between Tasmania and Victoria, creating a more interconnected transmission environment in which Basslink operates. No ISP projects specifically relate to Basslink.

Tasmania is also experiencing emerging interest from large electricity users, including proposed data centre and AI infrastructure developments. If progressed, these developments could materially alter regional electricity demand and power flows and may require new generation, network connection or transmission investment. The location, scale and timing of these developments remain subject to project, connection and approval processes. Their potential emergence reinforces the importance of coordinated transmission planning and maintaining reliable inter-regional transfer capability between Tasmania and Victoria.

APA will continue to engage with TasNetworks and AEMO to understand the implications of significant changes in Tasmanian supply and demand for the operation and future role of Basslink. This includes coordination of potential modifications associated with the integration and operation of Project Marinus, including System

Protection Scheme requirements and consideration of how Basslink can continue to support future network requirements.

4.1. Role of the Basslink Interconnector

Basslink provides an important transmission connection between Tasmania and mainland Australia, enabling the controllable, bidirectional transfer of electricity between the Tasmanian and Victorian power systems. Its role extends beyond the volume of energy transferred and includes maintaining reliable transmission capability and the technical performance required to support secure and efficient operation of the interconnected power system. Through its HVDC control, protection and transmission systems, Basslink provides 500 MW of continuous transfer capability, with dynamic transfer capability of up to 630 MW for short periods, subject to applicable operating conditions.

As a regulated transmission asset, Basslink is managed to maintain the availability, reliability and technical capability required to transfer electricity between Tasmania and Victoria when needed, operate securely within the power system, respond to changing network conditions and meet its defined service performance obligations. This includes maintaining asset capability and availability, managing planned and unplanned outages and contingencies, and meeting applicable technical and service standards. Accordingly, Basslink's value to the NEM is not represented solely by annual energy throughput, but also by maintaining dependable inter-regional transmission capability that can respond to changing supply, demand and power-system conditions.

As the Tasmanian and Victorian transmission networks evolve, Basslink is expected to continue providing important interconnection capability between Tasmania and mainland Australia. Changes in generation, storage and electricity demand, including the potential development of new large loads, may alter regional power flows and network requirements over time. APA is engaging with TasNetworks, VicGrid and AEMO to understand the implications of future network developments and evolving power-system requirements for Basslink, including its interaction with Marinus Link, and to identify opportunities for Basslink to continue supporting future network needs.

Consistent with current asset management assessments and planning assumptions, APA does not forecast any material asset de-ratings, asset retirements, constraints or inability to meet network performance requirements over the next 10-year planning period.

5. Asset Management

APA’s asset management planning process is a structured framework for managing asset condition, performance and risk throughout the asset lifecycle. The process supports the sustainable delivery of services by balancing reliability, safety, risk, compliance and value outcomes, while ensuring assets continue to meet current and future operational requirements.

The asset management planning process:

- Provides a comprehensive assessment of asset condition, performance, utilisation and management practices;
- Identifies asset management strategies and recommendations to support future operational requirements;
- Supports the development, prioritisation and approval of maintenance, replacement and capital work programs; and
- Identifies asset-specific risks, issues and opportunities, together with proposed remediation activities for consideration through planning and budgeting processes.

The objective of the asset management planning process is to maintain the safety, reliability and availability of the Basslink interconnector. Asset management activities are undertaken in accordance with APA's approved policies, standards and procedures, ensuring a consistent and integrated approach to the operation, maintenance and renewal of the asset.

Comprehensive health, safety, environment and heritage (HSEH) management systems are in place to support the safe and effective operation of all APA operated assets. These ensure the risks relating to the operation of all APA assets are effectively managed to keep risks as low as reasonably practicable (ALARP). APA's HSEH management system, Safeguard, provides the framework by which the processes relating to APA's HSEH activities are developed, implemented, communicated, managed and continually improved. The management system is subject to periodic review to ensure ongoing compliance with regulatory obligations and alignment with organisational objectives.

Functionally, Basslink's equipment can be broadly categorised into two groups:

- **Primary equipment** – this includes main circuit equipment such as power transformers, phase reactors, thyristor valves, filtering equipment and underground cables. Primary equipment generally has a design life of 40 years or more, with some assets nearly reaching the midpoint of their expected service lives.
- **Secondary equipment** – this includes ancillary equipment necessary for the operation of the converters, notably uninterruptible power supplies, building ventilation, air conditioning, cooling water pumping and treatment systems and control and protection systems. Ancillary equipment generally has shorter service lives (between 15 and 25 years) with elements of the equipment currently at various stages in their service life.

The principal challenges associated with the interconnector relate to maintaining the electrical installation, with its many components, to meet high reliability and availability standards. Even so, components need to be replaced or refurbished when:

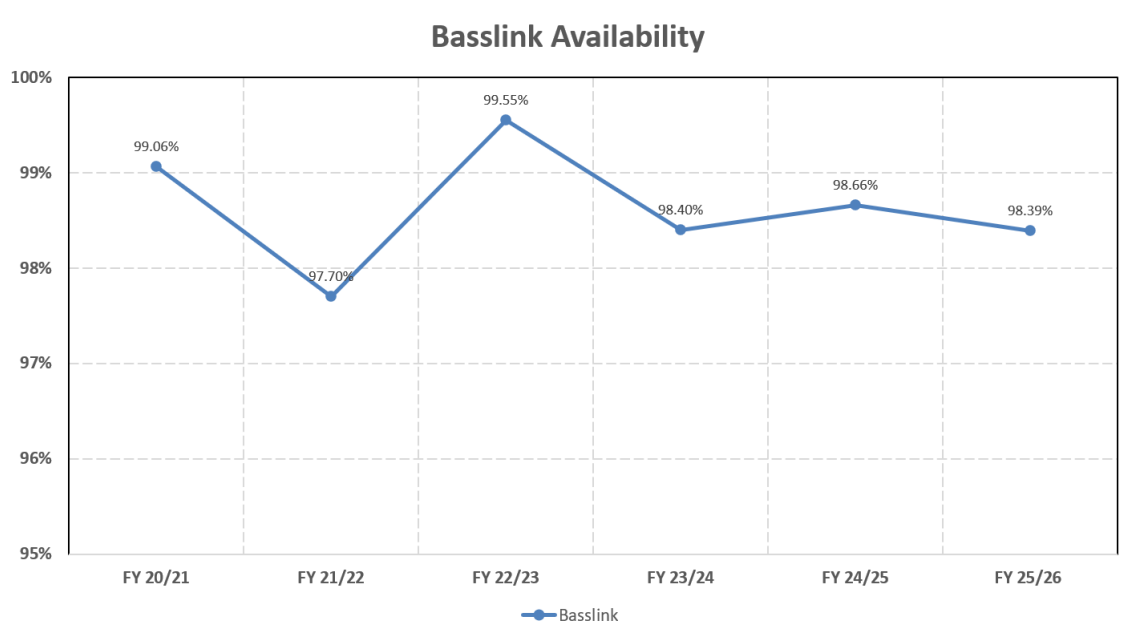
- Asset condition or service performance deteriorates, to the point where it may adversely impact the reliability, availability or operational risk;
- Increasing maintenance requirements or lifecycle costs make refurbishment or replacement the most cost-effective option; or
- Obsolescence of equipment or supporting systems introduces risks associated with limited technical support, spare parts availability or long-term maintainability.

5.1. Asset Performance

Basslink is operated and maintained to meet applicable service and performance requirements, including an availability requirement of greater than 97% under the Amended Basslink Operational Agreement. Asset performance, condition and outage history are monitored against these requirements and inform the prioritisation of maintenance, renewal and lifecycle investment.

The annual availability across Basslink over the past six financial years is shown in Figure 4.

Figure 4: Basslink Availability



Over the six years from FY2020-21 to FY2025-26, Basslink maintained generally strong and stable technical availability, averaging approximately 98.6%. Annual availability ranged from 97.7% in FY2021-22 to 99.5% in FY2022-23 and remained above 98% in each of the past four years. Total outage hours varied between approximately 40 and 202 hours per year, predominantly reflecting planned maintenance activities.

Unplanned outage time was comparatively low, totalling approximately 41 hours across the six-year period. Overall, the results indicate that Basslink has continued to perform reliably, supported by planned maintenance and targeted corrective work, with no sustained deterioration evident in the availability trend.

6. Current 2026 – 2030 Regulatory Period

The current capital works program is focused on maintaining the long-term capability and availability of the interconnector through targeted asset renewal, refurbishment and lifecycle replacement activities. Priority is being given to the management of ageing and obsolete systems, particularly the planned replacement of the Control and Protection System, which is a critical component in the safe and reliable operation of the HVDC transmission system.

The capital program also includes investment in initiatives required to meet obligations under the *Security of Critical Infrastructure Act 2018*.

Additional investment is being undertaken to support cable repair preparedness and to carry out the refurbishment and replacement of key components as they approach end of life. These activities are intended to maintain transmission capability, manage asset obsolescence risks and support prudent lifecycle management of the Basslink asset.

7. Future Asset Requirements

Basslink's future asset requirements are expected to comprise a combination of preservation of critical cable repair capability, technology renewal and targeted lifecycle replacement of primary and secondary plant. No such asset retirements or de-ratings are currently forecast over the 10-year planning period.

7.1. Future Investments Proposed

Key areas expected to inform future investments include:

7.1.1. Subsea cable repair capability

Maintaining a reliable and effective emergency repair capability for Basslink’s approximately 290 km subsea cable is critical given the potentially significant consequences and extended restoration time associated with a subsea cable failure.

The current cable repair vessel, CS Lodbrog, is scheduled to be replaced under the South Pacific Marine Maintenance Agreement. A contract has now been entered into for successor cable repair vessel services, supporting the transition from the current CS Lodbrog arrangements. APA will undertake the necessary planning and equipment modifications to ensure the successor vessel can support the specialised requirements of the Basslink subsea cable, with initial cost estimates at $15m over FY2028-29.

The AER's 2026–30 (2026) [4] transmission determination provides for a Repair Vessel Cost Pass Through, subject to the conditions established in the determination, including retirement of the CS Lodbrog and expenditure associated with removal, installation or adaptation of subsea cable repair equipment for the successor vessel. This provides an appropriate regulatory mechanism for eligible expenditure where the relevant conditions are satisfied.

This future investment will be important to preserving Basslink's emergency response capability and reducing the risk of an extended outage following a major subsea cable fault. Basslink already maintains dedicated cable spares, jointing equipment and specialised cable handling and repair equipment to support recovery from such an event.

7.1.2. Control and Protection System Upgrade

A future major investment will be required to modernise Basslink's ageing Control and Protection System (C&PS) as it approaches the end of its supported service life. The proposed investment will address technology obsolescence and equipment supportability through renewal of the HVDC control and protection platform and associated valve base electronics, protection, human-machine interface (HMI) and communications systems, supporting the continued reliable operation of the interconnector.

The C&PS modernisation has been identified as a contingent project, with associated capital expenditure subject to AER approval in accordance with the applicable contingent project requirements and capital expenditure criteria. The investment is currently expected to be delivered in phases, with initial activities commencing during the current regulatory period.

APA expects to have greater certainty regarding the estimated project cost following completion of front-end engineering and design in 2028. Based on current planning assumptions, the investment is presently estimated to exceed $85 million.

7.1.3. Primary Plant Lifecycle Management

Targeted refurbishment and replacement of individual like-for-like primary plant components, including AC filters and circuit breakers, as condition, performance and operating thresholds warrant. Major primary plant such as converter transformers, thyristor valves and DC switchyard equipment are generally expected to remain in service subject to ongoing condition assessment, maintenance and availability of appropriate spares.

7.1.4. Secondary plant renewal

Targeted replacement of telecommunications, station batteries, auxiliary systems and other electronic and control equipment as condition, obsolescence and availability of technical support and spare parts require.

7.1.5. Future Network Developments

Basslink is expected to operate alongside Marinus Link as part of an evolving Tasmania-mainland interconnection landscape. Basslink's existing bidirectional transmission capability provides an established pathway for sharing energy resources between Tasmania and Victoria, while the addition of Marinus Link will increase the overall interconnection capability between the regions.

APA is engaging with TasNetworks to understand and coordinate potential changes to Basslink associated with the integration and future operation of Marinus Link, including proposed changes to the System Protection Scheme (SPS). These potential changes will continue to be assessed, with any resulting requirements considered as part of Basslink's potential future investment programs. Any resulting investment requirements will be subject to the applicable regulatory framework and, where required, AER assessment and approval.

8. Asset Outlook

Overall, Basslink is expected to remain an important part of the interconnected NEM, providing dependable transmission capacity between Tasmania and Victoria as the energy system evolves. Future asset management and investment will focus on maintaining this capability through appropriate renewal, management of obsolescence and preservation of critical resilience measures, including subsea cable repair capability. This will position Basslink to continue supporting reliable inter-regional electricity transfer and respond to the changing needs of Tasmania, Victoria and the broader NEM.

APA will continue to assess Basslink's role within the evolving transmission network and coordinate with relevant stakeholders to identify emerging network requirements. Future investment will be directed towards maintaining safe, reliable and technically capable transmission services while responding prudently to changing asset and power-system needs.

9. References

[1] Australian Energy Market Commission, *National Electricity Rules*, Rule 5.12 – Transmission annual planning process.

[2] Australian Energy [Regulator, *Transmission Annual Planning Report Guidelines*, December 2018.

[3] AEMO, *Integrated System Plan*, 2026.

[4] Australian Energy Regulator, *Final Decision – Basslink Electricity Transmission Determination 2026 to 2030*, February 2026.