

Revoking the Electricity System Code

Final Decision

2 April 2024

Acknowledgement

We acknowledge the Traditional Owners of the lands and waterways on which we work and live.

We acknowledge all Aboriginal and Torres Strait Islander communities and pay our respects to Elders past and present.

As the First Peoples of this land, belonging to the world's oldest living cultures, we recognise and value their knowledge, and ongoing role in shaping and enriching the story of Victoria.

An appropriate citation for this paper is:

Essential Services Commission, *Revoking the Electricity System Code: Final Decision*, 2 April 2024.

© Essential Services Commission, 2024



This work, *Revoking the Electricity System Code: Final Decision*, is licensed under a Creative Commons Attribution 4.0 licence [creativecommons.org/licenses/by/4.0]. You are free to re-use the work under that licence, on the condition that you credit the Essential Services Commission as author, indicate if changes were made and comply with the other licence terms.

The licence does not apply to any brand logo, images or photographs within the publication.

Contents

Summary	3
Revoking the Electricity System Code	3
Updating transmission licences	3
Our stakeholder engagement process	3
Revoking the Electricity System Code	5
Why we are revoking the code	5
How we addressed stakeholder feedback	5
Compliance with the High Voltage Protection Sub-Code	6
Supply quality obligations for connection points below 100 kV	8
Communication obligations and planning responsibilities	9
Transmission benchmark performance standards	10

Summary

Revoking the Electricity System Code

The Essential Services Commission is revoking the Electricity System Code.

The revocation of the code will take effect on 31 May 2024.

Electricity transmission licences will be varied by 31 May 2024.

The Electricity System Code was created in 2000, to regulate shared transmission network services and the connection of distributors, high voltage customers and generators to the transmission network.¹

However, the National Electricity Law and the National Electricity Rules now regulate various matters covered by the code. The code is no longer relevant. Revoking the code would clarify the regulatory framework for energy businesses.

Updating transmission licences

Revoking the code requires consequential changes in electricity transmission licences. Most electricity transmission licences are not consistent with our latest standard licence conditions or with our enforcement powers.

In our draft decision we proposed a new standard electricity transmission licence which would update licence conditions and remove redundant or obsolete conditions. We are working with transmission licensees to finalise updated licence conditions.

We will vary the current electricity transmission licences in accordance with an updated template electricity transmission licence. We will address stakeholder comments on licence conditions as part of that separate decision. We aim to update existing transmission licences by 31 May 2024.

Our stakeholder engagement process

In September 2023, we released our [draft decision](#) to revoke the Electricity System Code. In our draft decision, we highlighted key code provisions which would benefit from stakeholder feedback. We sought views on whether there were compelling reasons for us to retain and enforce these provisions.

¹ See clause 10.1 of the Electricity System Code (October 2000).

We invited stakeholder feedback through survey questions on Engage Victoria and email. We received six written submissions from the following stakeholders:

- Australian Energy Market Operator
- Energy and Water Ombudsman of Victoria
- Master Electricians Australia
- AusNet Transmission Group Pty Ltd
- Basslink Pty Ltd
- Jemena Electricity Networks (Vic) Ltd

Submissions supported revoking the Electricity System Code. Feedback indicated that the industry no longer referred to the code and would continue to function as usual without it. Some stakeholders suggested retaining some provisions.

The submissions are on our [webpage](#). Our final decision considers stakeholder feedback. The following section sets out our reasons for revoking the code.

Revoking the Electricity System Code

We are revoking the Electricity System Code with effect from 31 May 2024.

We are not retaining provisions discussed in our draft decision for the following reasons:

- As an industry code, compliance with the High Voltage Protection Sub-Code does not need to be enforced under our codes of practice.
- The Australian Energy Market Operator can rely on joint planning provisions under the National Electricity Rules to define target voltage levels below 100 kV with distribution and transmission companies.
- The Australian Energy Regulator's Service Target Performance Incentive Scheme regulates transmission performance standards.

Why we are revoking the code

We review our energy codes to ensure their provisions remain up to date and aligned with our enforcement framework.² Part of this work includes removing outdated instruments.

We consider that the Electricity System Code is no longer a relevant instrument and should not be subject to our enforcement powers. It overlaps significantly with the National Electricity Rules. We consider that revoking the code would clarify the regulatory framework for the Victorian energy industry.

How we addressed stakeholder feedback

Prior to the publication of our draft decision in September 2023, some stakeholders indicated that industry may still use some code provisions. In our draft decision, we highlighted these provisions and sought further feedback. These provisions included:

- Clauses 100.4.1 to 100.4.3, which refer to and require compliance with the High Voltage Protection Sub-Code.
- Clause 110.2.1(a) and (b), which relate to defining target voltage levels below 100 kV.
- The service performance standards present in Attachment 11 of the code.

Stakeholders provided the following feedback to our draft decision:

² See the *Essential Services Commission (Compliance and Enforcement Powers) Amendment Act 2021*.

AusNet Transmission Group (AusNet) considered that there is no need to retain any provisions of the code. It suggested that the intent of communication obligations set out in clause 290 of the code should be retained. It suggested network agreements could reflect this intent, if VicGrid subsumes Victorian transmission planning functions.³

Basslink suggested that our transmission licences should provide greater clarity around service standards and obligations transmission network service providers should deliver, or that the commission form a working group to develop new performance targets.⁴

The Australian Energy Market Operator (AEMO) suggested retaining clauses 100.4.1 to 100.4.3, which require compliance with the High Voltage Protection Sub-Code, and clause 110.2.1(a) and (b), which outline supply quality obligations and the process for defining target voltage levels under 100 kV.⁵

Jemena supported revoking the code. It recommended allowing three to four weeks between the final decision and the effective revocation date, so that industry can make consequential changes to its processes or key documentation.⁶

Master Electricians Australia supported revoking the code.⁷

The following section addresses this feedback and explains the reasons for our final decision.

Compliance with the High Voltage Protection Sub-Code

The High Voltage Protection Sub-Code (Sub-Code) provides industry standards for Victoria's distribution and transmission companies for its high voltage protection equipment at points of connection of 66 kV and below. Clause 100.4.1 of the Electricity System Code states that transmission and distribution companies must comply with the Sub-Code.

The Sub-Code was developed by a committee of industry participants (the high voltage protection committee) in 2008 as an industry code – it is not a commission code.⁸

³ Ausnet Transmission Group (AusNet), submission to the Essential Services Commission consultation paper 'Revoking the Electricity System Code: Draft Decision', 9 November 2023, p. 1.

⁴ APA/Basslink, submission to the Essential Services Commission consultation paper 'Revoking the Electricity System Code: Draft Decision', 9 November 2023, p. 2.

⁵ Australian Energy Market Operator (AEMO), submission to the Essential Services Commission consultation paper 'Revoking the Electricity System Code: Draft Decision', 10 November 2023, p. 1.

⁶ Jemena, submission to the Essential Services Commission consultation paper 'Revoking the Electricity System Code: Draft Decision', 4 November 2023, p. 1.

⁷ Master Electricians Australia, submission to the Essential Services Commission consultation paper 'Revoking the Electricity System Code: Draft Decision', 20 October 2023, p. 1.

⁸ See clause 100.4.5 of the Electricity System Code (October 2000).

Together with the Victorian Energy Networks Corporation, the high voltage protection committee was tasked to review and update the subcode. Both entities were dissolved when AEMO was created in 2009.⁹ The Sub-Code has not been reviewed or updated since.

The commission does not fill this role either. The commission no longer regulates the technical elements of the electricity transmission system in Victoria. The National Electricity Rules and the Australian Energy Regulator (AER) regulate technical requirements for transmission companies.

Revoking the Electricity System Code will not revoke the Sub-Code itself. The Sub-Code may continue to exist, independent of our codes of practice. Our decision will remove an obligation to comply with the Sub-Code. However, the National Electricity Rules require participants operating a transmission system to maintain and operate their equipment in accordance with good electricity industry practice and relevant Australian standards. To the extent the Sub-Code represents good electricity industry practice, participants operating transmission systems will still need to comply with it.

Most stakeholders did not consider it necessary to retain the Sub-Code. However, AEMO, Basslink, and CitiPower, Powercor, and United Energy suggested preserving the Sub-Code in some manner, such as an industry code.

AEMO stated that it requires connecting parties below 100 kV to comply with the Sub-Code. It stated that clauses 100.4.1 to 100.4.3 of the Electricity System Code support it to do so. It also suggested that distribution businesses could agree a location to host the Sub-Code, with transmission, distribution and generation licences referring to it.¹⁰

Jemena agreed with our draft decision to revoke provisions related to the Sub-Code, reasoning that these provisions introduce ambiguity and further fragment the regulatory framework.¹¹

Similarly, AusNet stated that it was not necessary to retain these clauses. It stated that the industry does not proactively use or operationally reference the Sub-Code. Rather, its requirements are deeply embedded in industry standards.¹²

Our final decision

We will not retain the obligation to comply the High Voltage Protection Sub-Code in the commission's codes of practice. 'Good electricity industry practice' provisions of the National

⁹ *National Electricity (South Australia) (National Electricity Law—Australian Energy Market Operator) Amendment Act 2009.*

¹⁰ AEMO, op. cit., p. 1.

¹¹ Jemena, op. cit., p. 1.

¹² AusNet, op. cit., p. 1.

Energy Rules appear to cover these requirements. Industry stakeholders should consider whether and in what form to maintain, review and update the High Voltage Protection Sub-Code.

Supply quality obligations for connection points below 100 kV

The electricity transmission network transports electricity from sources of generation to distribution networks and to high voltage customers. Along the transmission network there are points of connection where distribution networks, generators and high voltage customers connect to the transmission network. These points of connection require coordination between distribution companies and transmission companies. The Electricity System Code lists obligations and processes for distribution and transmission companies to coordinate target voltage levels for points of supply below 100 kV with the Victorian Energy Networks Corporation.

The code reflects an outdated regulatory framework. Since AEMO's formation, target voltage levels are managed by AEMO under the joint planning provisions of the National Electricity Rules.¹³ In Victoria, AEMO determines specific voltage levels for connection points between distribution and transmission networks.

AusNet considered the code's obligations for distribution and transmission companies to notify AEMO of the desired voltage levels as good industry practice, and that revoking this clause would not change current practices.¹⁴ It also commented that there is a difference between voltage supply quality standards set out in the National Electricity Rules and in the code:

We would also note that the voltage supply quality set out under NER S5.1a.4 is more flexible than the current system code standard outlined in clause 110.2.1(a). We do not consider that aligning with the national standard presents a problem, however, that is ultimately a question for the Victorian planner.¹⁵

AEMO's position on clause 110.2.1(a) and (b) was that the clauses should be retained, as AEMO relies on the process and obligations set out in the clause to request information from distribution business in relation to supply quality.¹⁶

¹³ The Victorian Energy Networks Corporation's functions were assumed by the Australian Energy Market Operator in 2009. See *National Electricity (Victoria) Act 2005* and *Energy Legislation Amendment (Australian Energy Market Operator) Act 2009*.

¹⁴ AusNet, op. cit., p. 2.

¹⁵ Ibid.

¹⁶ AEMO, op. cit., p. 1.

Chapter 5 and Schedule 5.1 of the National Electricity Rules delineate obligations and processes for both transmission and distribution companies to determine target voltage levels through joint planning with AEMO.¹⁷

We consider that AEMO has powers under the national framework to request relevant information from industry participants, given its role in setting target voltage levels.

Our final decision

Processes to set target voltage levels in clause 110.2.1(a) and (b) interact with the 'joint planning' process in the national framework. Retaining clauses 110.2.1(a) and (b) would create unnecessary complexities in enforcing these obligations due to the overlap with the national framework. Clause 110.2.1(a) and (b) will not be retained.

Communication obligations and planning responsibilities

Clause 290 of the code mandates high voltage customers, generation, distribution and transmission companies to contribute information about their assets to a common database. The Victorian Energy Network Corporation (now dissolved) was tasked to create and maintain this common database.

The National Electricity Rules do not require AEMO to establish and maintain a single database that holds all the information referred to in clause 290.2.2 of the Electricity System Code. However, the National Electricity Rules cover the relevant information required by AEMO, including to establish and maintain several databases and registers.¹⁸ In addition, we note that AEMO did not request retaining clause 290 of the code.

The Victorian government recently introduced legislation to confer transmission planning functions to VicGrid.¹⁹ AusNet stated that the intent of clause 290 should be reflected in the network agreements between transmission companies and Victoria's transmission planner (currently AEMO) if VicGrid assumes Victoria's transmission planning functions.²⁰ We consider AusNet's feedback on cl 290 of the code is appropriate to be considered in the implementation of the Victorian Transmission Infrastructure Framework.

¹⁷ See rules 5.14 and S5.1.4 of the National Electricity Rules.

¹⁸ See rule 3.2.1(b), 3.7E, 3.13.3(a), 3.13.3(d), 3.13.3(f), 4.14(n), 5.18A.2, and 5.18B2 of the National Electricity Rules.

¹⁹ See the [National Electricity \(Victoria\) Amendment \(VicGrid\) Bill 2024](#). See also: 'Victorian Transmission Investment Framework', Department of Energy, Environment and Climate Action, accessed 4 March 2024: <https://www.energy.vic.gov.au/renewable-energy/vicgrid/victorian-transmission-investment-framework>.

²⁰ AusNet, op. cit., p. 1.

Our final decision

We consider that revoking the code will not affect current practices and that obligations expressed in clause 290 should not be subject to our enforcement powers.

Transmission benchmark performance standards

Clause 100.5 of the Electricity System Code requires a transmission company to use best endeavours to ensure the performance of its transmission systems is consistent with benchmark performance standards listed in Attachment 11 of the code. The performance standards listed in Attachment 11 of the code relate to, amongst other things, forced outage rates for transmission lines with nominal voltage of 220 kV to 500 kV.

The national economic regulatory framework for transmission companies also requires transmission companies (including transmission companies operating in Victoria) to ensure the performance of its transmission systems are consistent with the AER's published performance standards.²¹

AusNet submitted:

With respect to clause 100.5 and the attachment 11 benchmarks, these are no longer referenced by the industry and have not been for over a decade. Service standards are now comprehensively governed by Service Target Incentive Performance Scheme (STPIS) administered by the Australian Energy Regulator. These are audited annually, and performance reported on the Australian Energy Regulator website in the operational performance data model that supports the *Electricity Network Performance Report*. As such, we do not consider the retention of these clauses is necessary.²²

The Service Target Performance Incentive Scheme (STPIS) is designed to ensure transmission companies continuously improve the reliability of its transmission system.²³ The reliability of a transmission system is measured through the impact of unplanned outages and the transmission company's ability to restore the network.²⁴

²¹ See rule 6A.7.4 of the National Electricity Rules.

²² Ibid.

²³ Australian Energy Regulator (AER) *Final Decision - Electricity transmission service target performance incentive scheme (STPIS) version 5*, September 2015 (Current STPIS).

²⁴ Current STPIS p.5 - 7. Performance is assessed using three components: service, market impact and network capability.

In general, improved performance (improved reliability) is incentivised through an increase in a transmission company's revenue for the relevant year. Reduced performance (reduced reliability) is disincentivised by a decrease in the transmission company's revenue for the relevant year.²⁵ As a part of AER's regulatory determination process, the service performance targets are updated every five years.

The AER is currently conducting a review into specific elements of the STPIS for transmission companies. A revised STPIS is scheduled to take effect from December 2024.²⁶ In contrast, the benchmark performance standards in the Electricity System Code have not been reviewed or updated since 2000.

Basslink considered that there may exist a gap between the performance standards in Electricity System Code and the service target performance incentive scheme:

[Basslink] are of the view that the [commission] should not revoke the Code until satisfied that there would be no gap in performance standards for current and future TNSPs in Victoria.²⁷

We recognise Basslink's concern given its role as an interconnector. Unlike other Victorian transmission companies, which are registered as Transmission Network Service Providers (TNSPs), Basslink is also currently the only Market Network Service Provider (MNSP) operating in the National Electricity Market.

As an interconnector between Tasmania and Victoria, Basslink is subject to costs, risks, and sources of revenue which are different from other transmission companies operating in Victoria and mainland Australia. Basslink's revenue is linked to agreements with Hydro-Tasmania and the ability to leverage price differences between the two states, not to the AER's economic regulatory mechanisms.²⁸

²⁵ See rule 6A.7.4(b)(2) and Current STIPS p. 5 and p. 8.

²⁶ 'AER Issues paper – Transmission STPIS Review – MIC and NCC – 8 December 2023', AER, accessed 8 March 2024, <https://www.aer.gov.au/industry/registers/resources/reviews/review-electricity-transmission-service-standards-incentive-schemes/issues-paper>

²⁷ Basslink, op. cit., p. 2.

²⁸ AER, *Issues Paper - Basslink Conversion Application and Electricity Transmission Determination*, November 2023, p. 10.

In May 2023, Basslink lodged a request with the AER to convert to a regulated transmission company (also known as a TNSP), thereby requesting to subject itself to economic regulation by the AER.²⁹

We note that it is possible that some components of STPIS may not be appropriate for an interconnector (such as Basslink). Whether or not Basslink may be converted to a TNSP and subjected to the STPIS is something still to be determined by AER.³⁰

We consider that revoking the performance standards in the code will not affect the AER's process in considering Basslink's conversion. The AER does not refer to the standards in our code in their revenue determination process for Victorian transmission companies.

We will work collaboratively with the Victorian government, VicGrid, and AER should a future need arise to develop new performance standards for interconnectors operating in Victoria, such as Basslink.

Our final decision

The benchmark performance standards in the Electricity System Code are no longer relevant as the regulatory framework has moved to an incentives-based approach established in the Australian Energy Regulator's Service Target Performance Incentive Scheme.

²⁹ APA Group, *Basslink: application for conversion and request to commence the process for making a transmission determination*, 19 May 2023.

³⁰ 'Basslink – Determination 2025 -30', AER, accessed 04 March 2024, <https://www.aer.gov.au/industry/registers/determinations/basslink-determination-2025-30>