



APPLICATIONS FOR EXCLUSION FROM THE VICTORIAN SERVICE INCENTIVES FOR SUPPLY RELIABILITY

**SUPPLY INTERRUPTIONS DUE TO
TRANSMISSION NETWORK INCIDENTS
NOVEMBER-DECEMBER 2008**

Final Decision

5 June 2009

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1 Introduction

Powercor Australia Ltd and SP AusNet¹ applied to exclude four supply interruption events due to transmission network incidents between November and December 2008 from the supply reliability financial incentive scheme under the Essential Services Commission of Victoria's (ESCV) *Electricity Distribution Price Review 2006–10* (Price Review).

The Australian Energy Regulator (AER) published a draft decision on 3 April 2009 proposing to approve all applications and invited stakeholders to provide submissions in response to the draft decision. This paper presents the final decision on the distributors' applications regarding the following supply interruption events:

- SP AusNet's application concerning two supply interruption events at Glenrowan Terminal Station on 9 and 11 November 2008
- Powercor's application concerning an outage event at Bendigo Terminal Station on 13 November 2008
- SP AusNet's application concerning an outage event at Wodonga Terminal Station on 14 December 2008.

SP AusNet and Powercor sought exemption under the exclusion criterion of supply interruptions caused by a failure of transmission connection assets, to the extent that the interruptions were not due to inadequate planning of transmission connections.²

1.1 The role of the Australian Energy Regulator (AER)

As part of the transition to national regulation of energy markets, the AER is exercising certain powers and functions previously undertaken by the ESCV. The new responsibilities are conferred upon the AER by the operation of the *National Electricity (Victoria) Act 2005* (NEVA) in accordance with the *Trade Practices Act 1974* and the Australian Energy Market Agreement. The NEVA specifically confers economic regulatory functions, powers and duties on the AER.

The AER is making this final decision under ESCV's 2006-10 Price Review and *Electricity Distribution Code* provisions for approving exclusions from the calculation of the S factor and the obligation to make supply reliability guaranteed service level (GSL) payments respectively.

1.2 The ESCV's service (reliability) Incentive Scheme

The ESCV incorporated a service incentive scheme into the 2006-10 Price Review. The incentives of the scheme are in the form of:

- A service term (S factor) in the price control formula, giving it the form of $(1+CPI)(1-X)S$

¹ The trading name of SPI Electricity Pty Ltd.

² While transmission connection assets are owned and operated by the transmission network service providers (TNSPs), electricity distribution businesses are responsible for the planning and direction of such assets in Victoria.

If a distributor provides an average level of reliability above the target levels, then its distribution tariffs will rise in subsequent years. If the reliability level is below the target levels, then the distribution tariffs will fall.

- Guaranteed service level (GSL) payments to customers for low reliability.

Customers are entitled to receive a credit if they experience more than the specified number of sustained or momentary interruptions³ in a calendar year, or if they experience a cumulative supply interruption time longer than the specified number of hours.

Further information on the financial incentive scheme is contained in the 2006-10 Price Review final decision papers available from the ESCV's website.⁴

1.3 Exclusions from The Financial Incentive Scheme

On application by distributors, the AER may approve exclusions from the calculation of the S factor and from the requirement to make certain GSL payments for supply interruptions due to the following events:

- supply interruptions made at the request of the affected distribution customer
- load shedding due to a shortfall in generation, but not a shortfall in embedded generation that has been contracted to provide network support except where prior approval has been obtained from the ESCV or AER, where relevant
- supply interruptions caused by a failure of the shared transmission network
- supply interruptions caused by a failure of transmission connection assets, to the extent that the interruptions were not due to inadequate planning of transmission connections
- where prior written approval has been obtained from the ESCV or AER, load shedding due to a shortfall from demand side response initiatives
- supply interruptions on a day where the unplanned sustained interruption frequency, summed across all network types, exceeds set thresholds.

The Price Review requires that distributors apply to the AER⁵ for such exclusions within 30 business days of an event occurring, identifying:

- the relevant event
- the impact of the event on the distribution business's reliability performance
- the proposed extent of the exclusions

³ Supply interruptions shorter than one minute are classified as momentary interruptions.

⁴ At www.esc.vic.gov.au/public/Energy/Consultations/Electricity+Distribution+Price+Review+2006-10/Electricity+Distribution+Price+Review+2006-10.html

⁵ Previously the ESCV

- reasons for the exclusions.

The Price Review also requires the AER⁶ to provide a statement of reasons on whether it proposes to approve the applications by the distributors, and to consult with stakeholders before making a final decision.

1.4 Structure of this paper

- Chapter 2 provides an overview of the supply interruption events and the AER's draft decision.
- Chapter 3 provides an overview of any submissions received by the AER.
- Chapter 4 states the AER's final decisions regarding the distributors' applications.

⁶ Previously the ESCV.

2 Summary of the supply interruption events and the AER's draft decision

2.1 Summary of the supply interruption events

2.1.1 Supply interruption events at Glenrowan Terminal Station on 9 and 11 November 2008

SP AusNet advised that at 7:18 pm on 9 November 2008, five 22 kV feeders from Benalla (BN), three feeders from Mansfield (MSD) and one feeder from Merrijig (MJG) zone substations experienced a momentary supply interruption. A similar incident occurred again at 5:42 am on 11 November 2008.

The two incidents resulted in two momentary interruptions to 18,431 customers, representing a network momentary interruption frequency (MAIFI) of 0.061 interruption per average customer of SP AusNet's network.

According to SP AusNet, BN Zone Substation is supplied from Glenrowan Terminal Station (GNTS) by two 66 kV lines, and MSD and MJG Zone Substations are also supplied from GNTS through BN by one 66 kV line as a radial connection. For both of the incidents, incorrect settings of the No.1 GNTS–BN 66 kV protection equipment caused the No.1 line to trip off when a transient fault on the No.2 GNTS–BN 66 kV line occurred. Supply was restored through the auto-reclosing function of the protection system at GNTS. No supply interruption would have occurred had the inadvertent operation of the protection equipment of the No.1 line not occurred.

The incorrect protection setting was rectified on 12 November 2008 by SPI PowerNet, the transmission network service provider.

The application for exemption from the service incentive scheme was made within 30 business days of the supply interruption event on the grounds that the supply interruptions were caused by a failure of transmission connection assets.

2.1.2 Outage event at Bendigo Termination Station on 13 November 2008

Powercor advised that, on 13 November 2008, a three phase fault occurred on the Bendigo Terminal Station-Charlton Zone Substation (BETS-CTN) 66 kV line resulting in a sustained interruption of supply to Powercor's Charlton Zone Substation (CTN) and the 8,131 customers connected to CTN. It was noted that at the time of the outage there was lightning in the area. The nature of the fault on the line would have resulted in a momentary interruption to the CTN through the auto-reclose function of the feeder protection equipment, as subsequent patrol did not reveal any permanent damage to the line. However, a sustained interruption was experienced due to a configuration (setting) error of SPI PowerNet's feeder protection relay at the Bendigo Terminal Station (BETS).

The effect of the protection setting error was to inhibit effective re-energisation of supply to the BETS-CTN line for this type of transient fault. Instead of a momentary outage, this incident resulted in a sustained outage of 70 minutes.

The Powercor system configuration was normal at the time of the event and loadings were within plant ratings.

According to Powercor the transmission network service provider, SPI PowerNet, has confirmed that the feeder protection equipment configuration for the BETS-CTN 66 kV line has now been reconfigured to include an auto-reclose function.

The impact of the event on Powercor's performance indicators was:

- Rural Unplanned SAIDI 1.235
- Rural Unplanned SAIFI 0.018
- Network Unplanned SAIDI 0.802
- Network Unplanned SAIFI 0.012.

The application for exemption from the service incentive scheme was made within 30 business days of the supply interruption event on the grounds that the supply interruptions were caused by a failure of transmission connection assets.

2.1.3 Outage event at Wodonga Terminal Station on 14 December 2008

SP AusNet advised that, at 12:34 pm on 14 December 2008, a fault occurred at the 22 kV cable termination compartment of the 330/66/22 kV No.2 transformer circuit breaker panel. This caused an outage of the 330/66/22 kV No.2 Transformer and the 22 kV No.2 Busbar. As a result, the three 22 kV feeders connected to SPI PowerNet's Wodonga Terminal Station (WOTS) 22 kV No.2 Busbar went off supply for up to 68 minutes in duration.

The incident resulted in sustained interruptions to 2,294 customers connected to the WOTS 22 kV No.2 Busbar. The impact on SP AusNet's performance indicators was:

- unplanned SAIDI 0.067 minutes
- unplanned SAIFI 0.004 interruption per overall network customer.

The application for exemption from the service incentive scheme was made within 30 business days of the supply interruption event on the grounds that the supply interruptions were caused by a failure of transmission connection assets.

2.2 AER's draft decision

The AER released its draft decision on 3 April 2009, approving all applications by the distributors to exclude the four supply interruption events, as outlined in section 2.1, from the calculation of the S factor and the obligation to make supply reliability GSL payments. These supply interruption events met the relevant exclusion criteria. The draft decision can be found on the AER's website.⁷

The following transmission network incidents between November and December 2008 were approved on the basis that the supply interruptions were caused by a failure

⁷ At <http://www.aer.gov.au/content/index.phtml/itemId/727827>

of the transmission connection assets and that the interruptions were not due to the inadequate planning of the transmission connections:

- the supply interruption events at Glenrowan Terminal Station on 9 and 11 November 2008 affecting SP AusNet customers
- the outage event at Bendigo Terminal Station on 13 November 2008 affecting Powercor customers
- the outage event at Wodonga Terminal Station on 14 December 2008 affecting Sp AusNet customers.

3 Submissions received

There were no submissions to the draft decision.

4 Final decision

The AER has not received any information that would lead it to amend its draft decision. The AER therefore confirms its draft decision to approve the supply interruption events as listed in section 2.2 for exclusion from the calculation of the S factor and from the obligation to make GSL payments for low reliability.