



Draft determinations

and

Explanatory statement for the draft determinations

F-factor scheme determinations 2012–15

for

**Victorian electricity distribution network service
providers**

5 October 2011

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Request for submissions

Interested parties are invited to make written submissions to the Australian Energy Regulator (AER) regarding this paper by the close of business Friday, 18 November 2011.

Submissions can be sent electronically to: aer inquiry@aer.gov.au

Alternatively, submissions can be sent to:

Mr Chris Pattas
General Manager
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GPO Box 520
Melbourne VIC 3001

The AER prefers that all submissions be publicly available to facilitate an informed and transparent consultation process. Submissions will be treated as public documents unless otherwise requested. Parties wishing to submit confidential information are requested to:

- clearly identify the information that is the subject of the confidentiality claim
- provide a non-confidential version of the submission in a form suitable for publication.

All non-confidential submissions will be placed on the AER's website at <http://www.aer.gov.au>. For further information regarding the AER's use and disclosure of information provided to it, see the *ACCC/AER Information Policy, October 2008* available on the AER's website.

Enquires about this paper, or about lodging submissions, should be directed to the Network Operations and Development branch of the AER on (03) 9290 1444.

After consideration of stakeholders' submissions, the AER will publish a final decision and determinations in accordance with the *F-Factor Scheme Order 2011*.

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Shortened forms

| | |
|------|---|
| AER | Australian Energy Regulator |
| CFA | Country Fire Authority |
| DNSP | Electricity Distribution Network Service Provider |
| DSE | Department of Sustainability and Environment |
| ESV | Energy Safe Victoria |
| MFB | Metropolitan Fire and Emergency Services Board |
| NER | National Electricity Rules |
| NEL | National Electricity Law |

Structure of this paper

This paper is structured as follows:

Chapter 1 provides an introduction to the f-factor scheme and the purpose of this paper.

Chapter 2 provides the AER's process in making the determinations.

Chapter 3 outlines the AER's considerations and reasons in making the f-factor scheme determination 2012–15.

Chapter 4 consists of the f-factor scheme draft determinations 2012–15 for the Victorian DNSPs.

Chapter 5 outlines the AER's next steps.

1 Introduction

On 24 June 2010, the Victorian Parliament passed the *Energy and Resources Legislation Amendment Act 2010*. The Act amended the *National Electricity (Victoria) Act 2005* (the NEVA) to introduce an ‘f-factor scheme’. This scheme is intended for providing incentives for Distribution Network Service Providers (DNSPs) to reduce the risk of fire starts and to reduce the risk of loss or damage caused by fire starts.¹

Under section 16C of NEVA, the Victorian Governor in Council, by Order published in the Government Gazette, may confer functions and powers, or impose duties, on the Australian Energy Regulator (AER) to make a determination for the purpose of providing incentives for DNSPs to reduce the risk of fire starts and reduce the risk of loss or damage caused by fire starts.

Subsequent to passing the *Energy and Resources Legislation Amendment Act 2010*, the Victorian Government published an *f-factor scheme order 2011* (the Order) on 23 June 2011.

The Order requires that the AER must make, no later than 31 December 2011, an f-factor scheme determination for each of the DNSPs to take effect in the first distribution determination period (2011–15). The targets should be based on the average historical fire starts of the DNSPs over the five previous calendar years—that is the average of 2006–10.

1.1 The f-factor scheme

The f-factor scheme is intended to provide a financial incentive for DNSPs to reduce the number of fire starts in their distribution networks. For the first four years (2012–15), DNSPs will be either rewarded or penalised at the incentive rate of \$25,000 per fire for performing better or worse than their respective fire start targets.

After the first period, the AER may vary the incentive rates and mechanism of the scheme, such as applying different targets for different parts of the network.

This paper sets out the AER’s draft f-factor scheme determination and explanatory statement. From 2013, the AER will make annual f-factor amount determinations, to apply the financial rewards and penalties accrued under the scheme. Section 1.1.1 and 1.1.2 of this paper detail how the financial rewards and penalties arising from the f-factor scheme will be applied.

1.1.1 Revenue adjustment mechanism under the f-factor scheme

Clause 7(2) of the Order specifies that, based on the actual fire starts in comparison with the target number of fire starts each year (t-2), the f-factor scheme shall result in adjustments to DNSPs’ revenue for year (t)—that is two years later. The AER notes the revenue adjustment will start from 2014 based on the actual outcome of 2012. The adjustment will be in the form of:

¹ Energy and Resources Legislation Amendment Bill 2010, *Explanatory Memorandum*, p.10.

$$\text{Revenue adjustment}_{t,n} = \sum_{m=1}^q \text{Incentive rate}_{t-2,n,m} \times (\text{Target no. of fires}_{t-2,n,m} - \text{Number of fires}_{t-2,n,m})$$

where the distribution system is made up of q parts and—

- (a) **Revenue adjustment** $_{t,n}$ is the adjustment to the revenue for Distribution Network Service Provider n for regulatory year t ;
- (b) **Incentive rate** $_{t-2,n,m}$ is the incentive rate for part m of distribution system n for regulatory year $t-2$, determined in accordance with clause 10 or 11 as the case may be;
- (c) **Target no. of fires** $_{t-2,n,m}$ is the fire start target for regulatory year $t-2$ for part m of distribution system n , determined in accordance with clause 8; and
- (d) **Number of fires** $_{t-2,n,m}$ is the number of fire starts in relation to part m of distribution system n that occurred in regulatory year $t-2$, determined in accordance with clause 9.

Clause 7(4) of the Order specifies that, for the purposes of a distribution determination, a revenue adjustment under an f-factor scheme is not revenue of, expenditure by or a cost of a Distribution Network Service Provider unless the AER determines otherwise.

1.1.2 Parameters of revenue adjustment rates

In accordance with clause 12(2) of the Order, the AER must make an f-factor amount determination with respect to amounts to be passed through in the regulatory years that commence 1 January 2014 and 1 January 2015.

Under clause 13(1), the amount specified in an f-factor determination is to be treated as a positive pass through or a negative pass through amount for the purposes of the NER.

Under clause 13(2), the AER will issue an f-factor amount determination as determined as follows:

$$\text{Pass through amount}_{t,n} = \text{Incentive rate}_{t-2} \times (\text{Target no. of fires}_{t-2,n} - \text{Number of fires}_{t-2,n})$$

where -

- (a) **Pass through amount** $_{t,n}$ is the amount for Distribution Network Service Provider n for regulatory year t which may (but does not have to) be expressed as a percentage adjustment to the revenue of the Distribution Network Service Provider;
- (b) **Incentive rate** $_{t-2}$ is \$25,000;

- (c) **Target no. of fires** $_{t-2,n}$ is the fire start benchmark for regulatory year $t-2$ for distribution system n , determined in accordance with clause 8; and
- (d) **Number of fires** $_{t-2,n}$ is the number of fire starts in relation to distribution system n that occurred in regulatory year $t-2$, determined in accordance with clause 9.

1.1.3 What are fire starts?

Under clause 4 of the Order, fire starts covered by an f-factor scheme determination are any fire:

- (a) that starts in or originates from a distribution system;
- (b) started by any tree, or part of a tree, falling upon or coming into contact with a distribution system;
- (c) started by any person, bird, reptile or other animal in or on a distribution system;
- (d) started by lightning striking a distribution system or a part of a distribution system; and
- (e) started by any other thing forming part of or coming into contact with a distribution system; or
- (f) otherwise started by a distribution system.

1.2 Legislative requirements in making this determination

The Order requires that,² the AER must:

- publish its proposal for the f-factor scheme determination;
- publish an explanatory statement that sets out the provisions under or for the purpose of which the f-factor scheme determination is required and the reasons for the determination;
- consult with the relevant parties; and
- follow the distribution consultation procedures set out in rule 6.16 of the National Electricity Rules (NER), as modified by the Order.

The AER is required under clause 6 of the Order to make an f-factor scheme determination, which outlines that:

- (1) The AER must make an f-factor scheme determination in accordance with this Order.

² Clause 14 of the Order.

*Note: Pursuant to section 16E(1)(a) and (b) of the **National Electricity (Victoria) Act 2005**, the AER must perform or exercise its functions and powers under this Order in a manner that will or is likely to contribute to the achievement of the national electricity objective.*

(2) The AER must make, no later than 31 December 2011, an f-factor scheme determination to take effect in the first distribution determination period.

(3) F-factor scheme determinations that take effect for a regulatory control period subsequent to the first distribution determination period must be made by the AER so as to take effect at the commencement of each such subsequent regulatory control period.

(4) The AER must publish an f-factor scheme determination. An f-factor scheme determination for a regulatory control period subsequent to the first distribution determination period may be published as part of a distribution determination for that regulatory control period.

Clause 7(1) of the Order provides:

An f-factor scheme determination must establish an f-factor scheme that complies with this Order and under which there is a revenue adjustment for a Distribution Network Service Provider.

1.3 Purpose of this paper

This paper sets out the AER's draft proposal for the f-factor scheme determination for the first distribution determination period and explanatory statement for the purpose of clause 14 of the Order for the f-factor scheme determinations. This paper presents the AER's:

- process in making this f-factor scheme determination
- considerations and reasons for making this determination
- draft f-factor scheme determination for each of the five Victorian DNSPs.

The AER seeks stakeholders' comments and submissions to the draft determinations. Page iii contains the details of how to make a submission.

Under clause 6(2) of the Order, the AER is required to make, no later than 31 December 2011, an f-factor scheme determination to take effect in the 2011–15 period. Under clause 7, the f-factor scheme determination must establish an f-factor scheme, which complies with the Order and under which there is a revenue adjustment for a DNSP.

The AER, in making an f-factor scheme determination for the first distribution determination period, must follow the consultation procedures outlined in clause 14 of the Order.

After submissions on this paper have been received and considered, the AER will issue the final f-factor scheme determinations and explanatory statement by 31 December 2011.

2 AER's process

The AER undertook the following steps to obtain the relevant information for making this determination.

2.1 Initial discussions with DNSPs

In order to ascertain the type of information currently kept by the DNSPs, AER staff held discussions with the DNSPs. Based on these discussions, the AER understood that:

- Prior to 2010, DNSPs' reporting requirement for fire starts to Energy Safe Victoria (ESV) only related to fires that caused:³
 - damage to an area larger than 0.3 hectares in size
 - more than \$5000 damage to property other than network assets
 - any live stock loss
 - damage that has potential for significant media interest, or
 - damage serious enough to warrant on site action to mitigate risk to the public by Police, Ambulance Service, Melbourne Fire and Emergency Service Board, Country Fire Authority, Victorian WorkCover Authority, a statutory body or an emergency service provider.
- The DNSPs have not been recording all fire starts as defined in the Order.

In anticipation that some DNSPs would be providing estimates⁴ of small fire starts that were not recorded under the previous reporting requirements but would be counted as fire states under the Order, the AER specified to the DNSPs that they must provide the data and assumptions used to derive such estimates.

The AER requested the assistance of technical experts Sinclair Knight Merz (SKM), to assist the AER in assessing claims by the DNSPs regarding estimations of unrecorded historical fire starts.

2.2 Initial contacts with ESV, CFA, MFB and DSE

In June 2011, the AER consulted the ESV, Metropolitan Fire and Emergency Services Board (MFB), Country Fire Authority (CFA) and the Department of Sustainability and Environment (DSE) in accordance with section 16G of the NEVA to determine whether these organisations could provide information on the number of fires started by electricity networks.

³ Office of the Chief Electrical Inspector, *Guidelines for reporting electrical incidents, Electricity Safety (Network Assets) Regulations 1999*, May 2011.

⁴ As the AER allowed in accordance with clause 9(2) of the Order.

2.3 Collection of information from DNSPs

The AER issued a Regulatory Information Notice (RIN) under Division 4 of Part 3 of the *National Electricity (Victoria) Law* (NEL) to each of the Victorian DNSPs. The RINs specified the prescribed information DNSPs should provide to the AER.

The RINs required that DNSPs provide historical fire starts based on the following categories, which are based on DNSPs' current reporting templates to Energy Safe Victoria:

- Asset failures resulting in grass/vegetation fire
- Grass/vegetation fires due to animals
- Asset failures resulting in asset fire (no grass/vegetation fire)
- Any other Fire Start.

The RINs also required DNSPs to report fire starts that were previously unrecorded. The AER considered this to be necessary because the previous definition of fire starts, under which the DNSPs reported to ESV, only required fires with impacts outlined in section 2.1 of this paper to be reported. The Order has a broader definition of fire starts, and therefore some incidents, which were not recorded as fires for reporting to ESV, may be fire starts under the definition in the Order. The AER required DNSPs to provide supporting information such as field records or other substantiation for such claims.

2.4 Collection of information from ESV, MFB, CFA and DSE

After consultation with ESV, MFB, CFA and DSE, the AER wrote to these organisations and sought information relating to fire starts. All organisations responded to this request.

3 AER considerations

This section outlines the AER's considerations and conclusions regarding the benchmark fire start targets for each of the Victorian DNSPs for the 2012–15 period.

3.1 Legislative Requirements

Clause 7(1) of the Order provides that an f-factor scheme determination must establish an f-factor scheme that complies with the Order and under which there is a revenue adjustment for a DNSP.

3.1.1 Fire Start Target

Clause 8(1) of the Order requires that the AER must determine the fire start target as follows:

$$\textit{Target no. of fires}_{rcp(T),n,m} = \textit{Number of fires}_{n,m} / \textit{Number of years}$$

where -

- (a) *Target no. of fires*_{rcp(T),n,m} is the fire start benchmark for part *m* of distribution system *n* for regulatory control period *T*;
 - (b) *Number of fires*_{n,m} is the number of fire starts in relation to part *m* of distribution system *n* that occurred in the 5 complete contiguous regulatory years prior to the making of an f-factor scheme determination for regulatory control period *T*, determined in accordance with clause 9; and
 - (c) *Number of years* is 5.
- (2) In the first distribution determination period, there must be only one fire start target for a distribution system.

3.2 DNSP submissions

In response to the AER's RINs, each of the Victorian DNSPs provided the prescribed information to the AER. Only Jemena and United Energy sought adjustments to account for previously unrecorded fires. DNSPs' information is summarised below.

3.2.1 CitiPower

CitiPower included fire starts previously reported to ESV and events with the descriptors, [REDACTED] if the fieldsmen comments indicated the events met the categories in the RIN.⁵

3.2.2 Jemena

To make an estimate of the number of unrecorded fire starts, Jemena advised that:

⁵ CitiPower and Powercor, *RIN cover letter*, 26 August 2011, confidential.

- From 2006 to 2010 there were 42 fires (excluding pole fires) reported by the field crews. This is 8.4 fires per annum. Jemena recorded fire starts that have burnt an area of grass/vegetation much smaller in size than the reporting guidelines required. However, it conservatively estimated that the very smallest of fires (for example, less than 1 sq m) would not have been recorded.
- It estimated that 80 per cent of fires (excluding pole fires) have been recorded in the past.
- The unrecorded fires (non pole fires), therefore, requires an upward adjustment of 1.7 fires per annum or 8 fires over the five year period.⁶

Jemena noted that in its proposed actual fire starts, it included events which had the word 'smoke' as a descriptor. However, the AER understands Jemena has not included fire starts recorded by the CFA if they were not also recorded by Jemena.

3.2.3 Powercor

Along with fires previously reported to ESV, Powercor included historical event records that involved:⁷

- Expulsion Dropout (EDO) fuses candling⁸
- flashovers that caused a [REDACTED] to burn
- events with the descriptors [REDACTED] that have a relevant repair item or damage code.

3.2.4 SP AusNet

SP AusNet filtered its data against fault codes and then reviewed the free text field for validation of a fire incident. SP AusNet identified [REDACTED] fires recorded by the CFA that could not be matched with information held by SP AusNet. The DNSP chose not to include the CFA recorded fires in its target number of fire starts because the fires could not be verified as fires involving SP AusNet's assets. SPA AusNet noted that equally, some fires which it recorded had not been included by the CFA in its data.⁹

3.2.5 United Energy

United Energy provided its historical fire start numbers and a list of events which would have had the possibility to result in a fire start under the definition in the Order. However, it did not identify a specific method to determine the relevant number of fires to be included. United Energy advised that it wanted to work with the AER to

⁶ Jemena, *RIN response*, 22 August 2011, confidential.

⁷ CitiPower and Powercor, *RIN cover letter*, 26 August 2011, confidential.

⁸ Candling of EDO fuse is a term historically used by the DNSPs and ESV. It refers to the phenomenon where an EDO fuse did not operate correctly, it would result in overheating of the casing of the fuse and caused the casing to glow and become visible at night resembling a candle flame.

⁹ SP AusNet, *RIN and RIN cover letter*, 22 August 2011, confidential.

develop a suitable method for varying this data to establish a suitable fire start target.¹⁰

After discussions with SKM and AER staff, United Energy provided a refined assessment of the quantity of unrecorded fires.¹¹ Assessment of this information is discussed in section 3.5.1 of this paper.

Tables 3.2.1 and 3.2.2 summarise the number of historical fire starts advised by the DNSPs and the target number of fires submitted by the DNSPs.

Some DNSPs advised the AER that they considered their historical fire start numbers to be confidential and should not be publicly released. The AER considers that such data should be released to inform stakeholders of the key source information on which the targets in the determination are based, given that:

- bushfires have significant safety and economic impacts on all communities, information on fire starts is important for the measurement of the effectiveness of DNSPs' bushfire mitigation actions as well as the effectiveness of the f-factor scheme.
- the outcome of the f-factor scheme will impact on the distribution tariff.

Section 28ZB of the National Electricity Law (NEL) provides that the AER may disclose information given to it in confidence if the AER is of the opinion that disclosure would not cause detriment or that the public benefit in disclosure outweighs any detriment. The AER will seek to release the information under this provision if it determines that this test is satisfied. However, the AER must follow the process prescribed by the NEL before making such determination.

Given the limited time available, it is not practical for the AER to undertake this process for the purposes of publishing this information in the draft determination. Hence, confidential information claimed by the DNSPs is redacted in the published version of this paper. However, the AER will seek to release all relevant information under s28ZB of the NEL in time for the final determination, if the public benefit test is met.¹²

¹⁰ United Energy, *RIN cover letter*, 29 August 2011, confidential.

¹¹ United Energy, *email to AER*, 21 September 2011, confidential

¹² The AER also notes that ESV has already published DNSPs' fire start numbers for 2010 under the categories of "fire started in vegetation in HBRA" and "fires started on poles". [p.17-18 of ESV's *2010 Safety Performance Report on Victorian Electricity Distribution Businesses*.] The AER understands that ESV's report relates to DNSPs' safety management plans under the *Electricity Safety Act 1998* and the associated regulations.

Table 3.2.1 Actual fire starts reported by DNSPs 2006-10

| Fire Start by Category | Fire Start by Asset | CitiPower | Powercor | Jemena | SP AusNet | United Energy |
|---|---|-----------|----------|------------|-------------|---------------|
| Asset failures resulting in grass/vegetation fire | Pole and cross arm failure or Pole and cross arm fire | ■ | ■ | 0 | ■ | ■ |
| | Oil-filled plant | ■ | ■ | 1 | ■ | ■ |
| | HV Fuse | ■ | ■ | 0 | ■ | ■ |
| | Other Assets | ■ | ■ | 14 | ■ | ■ |
| | Any fire triggered by any asset failure caused by Lightning | ■ | ■ | 1 | ■ | |
| Grass/vegetation fires due to animals | Fire starts in grass/vegetation resulting from animal contact with network assets | ■ | ■ | 3 | ■ | ■ |
| Asset failures resulting in asset fire (no grass/vegetation fire) | Pole and cross arm fire (including 'smouldering' or 'smoke') | ■ | ■ | 234 | ■ | ■ |
| | Oil-filled plant fire | ■ | ■ | 0 | ■ | ■ |
| | HV Fuse Failure (including 'hang-ups' and 'candling') | ■ | ■ | 3 | ■ | ■ |
| | Other Assets | ■ | ■ | 13 | ■ | ■ |
| | Any fire triggered by any asset failure caused by Lightning | ■ | ■ | 0 | ■ | ■ |
| Any other Fire Start | Any additional fires, caused by any asset failure, not reported to the ESV and required to be reported by the OIC | ■ | ■ | 0 | ■ | ■ |
| Other ^a | | ■ | ■ | 7 | | ■ |
| Total | | ■ | ■ | 276 | 1290 | 566 |

^a 'Other' was not a category provided by the AER to the DNSPs in the RIN. Several DNSPs submitted additional categories to those required to be reported against, which the AER has now categorised as 'Other' for this table.
Confidential data claimed by DNSPs withheld.

Table 3.2.2 Victorian DNSPs' proposed fire start targets for 2012–15

| DNSP | DNSP submitted fire start target |
|--------------------|---|
| CitiPower | ■ |
| Powercor | ■ |
| Jemena | 56.8 ^a |
| SP AusNet | 258 |
| United Energy | 133.4 ^a |
| Total of all DNSPs | 886.6 |

^a includes estimated previously unrecorded fire starts

3.3 Information provided by ESV, CFA, MFB and DSE

In response to AER's information request, ESV, CFA, MFB and DSE provided fire start information to the AER. The AER provided this information to SKM to assist in assessing the DNSPs' fire start claims.

The ESV provided reports previously given to it by the CFA and MFB regarding monthly electrically related fire reports for the relevant period. The AER has not included this information in table 3.3.1 because it duplicates information provided to the AER by CFA and MFB directly. ESV also provided information about its historical benchmarking exercise of comparing CFA's fire start information with DNSPs' fire start information.

The MFB and CFA provided the AER with fires recorded as resulting from the electricity network. This included some fires which were attributable to transmission and other non distribution assets. The information included the date and location of fires, ignition factors and a description¹³ of the event.

The DSE is responsible for managing fires and reducing the risk of fire on Victorian public land. The DSE provided the AER with information regarding fire starts from its database where the cause had been attributed to 'power transmission'.

Table 3.3.1 Total fire starts provided by CFA, MFB and DSE over 2006–10

| Organisation | Aggregate number of fire starts over the previous 5 years |
|--------------|--|
| CFA | 2 226 |
| MFB | 1 726 |
| DSE | 44 ^a |
| Total | 3 996 (average over 5 years = 799.2) (for comparison, total fire start target sought by DNSPs =864.8^b) |

^a 2005-06–2009-10 financial years.

^b excluding unrecorded fire starts for comparison with CFA, MFB and DSE data.

Source of information: CFA email to AER 12 August 2011, MFB email to AER 20 June 2011 and DSE email to AER 6 September 2011

The AER and its consultant used the information to:

- Cross check a sample of DNSPs' fire start claims.
- Provide a high level aggregate 'reasonableness check' on the DNSPs' fire start claims.

The AER's cross checks did not raise concerns with the robustness of the DNSPs' reporting. This is discussed further in sections 3.4 and 3.5. In addition, the AER found

¹³ MFB information only.

that the number of fires recorded by the DNSPs was similar to the aggregate number of fires recorded by the MFB, CFA and DSE over the same period.¹⁴ The AER expected there to be some discrepancy between the two sources because:

- The CFA, MFB and DSE do not attend all the fires started from distribution networks;
 - Not all fires were reported to these organisations. Some fires (for example some pole fires) stop burning before causing major damage.
 - A DNSP's technician can find evidence of a fire (such as burnt material) without actually seeing a fire and thus not advise the MFB, CFA or DSE.
- Some fires may be incorrectly attributed to a distribution network by the MFB, CFA or DSE—for example, a fire could have been started by a transmission network, or could have been related to a private customer's electricity assets rather than a DNSP's assets.
- According to the information provided by ESV, the AER understands that ESV previously compared the fire start information provided to ESV by CFA with DNSPs' reports to ESV and ESV's internal database. The ESV found that the CFA's previous records were not a good match to the information kept by ESV and that some CFA fire records were started by electrical installations in private properties rather than DNSPs' network assets.

SKM made a similar finding that the combined figures of the CFA and MFB closely aligned to the DNSPs' proposals, with an average difference of less than 9 per cent.¹⁵ While SKM's analysis did not include fire starts recorded by DSE, the AER notes that fire starts due to electricity networks recorded by DSE are just above one per cent of all fire starts recorded by all the three fire fighting agencies.

The AER concludes that, as the information from CFA, MFB and DSE is similar to that identified by the DNSPs, DNSPs' fire start data are within the expected range and there is no indication that DNSPs inflated their historical data.

3.4 Consultant's advice

The AER engaged SKM to provide expert advice on the validity and reasonableness of the assumptions and methodologies proposed by DNSPs regarding the estimation of unrecorded historical fire starts.

In undertaking this assessment the AER requested SKM to advise on:

- The validity and reasonableness of the assumptions and methodologies proposed by DNSPs regarding estimation of unrecorded fire starts.

¹⁴ Excluding the fire start estimates provided by United Energy.

¹⁵ SKM, *F-Factor Incentive Scheme Final*, 19 September 2011, p. 5.

- What should be fair and reasonable assumptions, and methodologies for adjusting DNSP claims for unrecorded fire starts, should some or all of the DNSPs estimations not be considered reasonable.

In addition SKM was requested to:

- Provide comments on DNSPs' record management systems, in terms of accuracy and compliance with Order's fire start definition.
- Provide comments on whether the data are likely to be over, under, or accurately stating the fire start history.
- Organise meetings with the DNSPs and prepare questions to assist in evaluating their claims.¹⁶

After reviewing DNSPs' submissions, SKM advised:

- There is a reasonable correlation between line length and pole numbers, and fire starts.¹⁷
- There were large variations in how fire starts were allocated under the reporting categories by DNSPs.¹⁸ This is most likely caused by variations in asset types.¹⁹ However, there may also have been different interpretations of the fire categories taken by the DNSPs.²⁰
- [REDACTED] and [REDACTED] should clarify how they allocate fires under the category of '[REDACTED]'.²¹
- SKM identified some possible duplicate fire start entries.²²

Regarding variation of fire start categories, to the extent the differences are based on different interpretations of fire causes, the AER intends to provide more clarification on how different fires starts should be classified to improve the usefulness of future fire start data to be reported by the DNSPs.

Regarding SKM's comments on HV fuse failures and duplicate fire start entries, the AER requested additional information from the DNSPs to address SKM's concerns.²³ This is discussed in section 3.5.

After attending meetings with all the Victorian DNSPs, SKM formed the view that:

- All Victorian DNSPs appear to have robust systems to capture reliability data.²⁴

¹⁶ SKM, *F-Factor Incentive Scheme Final*, 19 September 2011, p. 2.

¹⁷ *ibid* p. 11.

¹⁸ *ibid* p. 11.

¹⁹ *ibid* p. 8.

²⁰ *ibid* p. 7, 8.

²¹ *ibid* p. 9.

²² *ibid* p. 9, 10.

²³ AER, *emails to DNSPs*, 15 September 2011.

- The fire start data is sourced from DNSPs' core business systems.²⁵
- Some fires, such as streetlights, are unlikely to cause a fire in surrounding grass or trees, however, they have been correctly reported by DNSPs under the Order's definition as fire starts.²⁶
- The DNSPs' data is a balanced and robust view on the number of fire starts associated with each DNSP's network.²⁷
- Some improvements to data recording and regular auditing are desirable.²⁸

SKM also provided some recommendations relating to ongoing fire start reporting. The AER will consider and implement these recommendations where appropriate.

3.5 AER Considerations

Victorian DNSPs operate in different geographical locations and have different amounts/types of assets (for example, length of lines or number of transformers). Therefore, it is not unexpected that the number of fire starts varies between DNSPs. For example, CitiPower operates mostly in CBD and urban areas, and many of its assets are underground. Other DNSPs which operate in rural areas have mostly above ground assets and long spanning lines. Some of these differences have been outlined in SKM's report.²⁹ In addition to general asset management, these differences help explain why different DNSPs have proposed substantially different fire start targets.

The definition of fire start is contained in the Order. In some circumstances the AER has applied its interpretation of the definition of fire start. For example, the AER considers a scorched animal found on or near a distribution network is not itself a fire start. On the other hand, if there is evidence of a burning animal starting a grass or asset fire, this would be a fire under the Order's definition.

3.5.1 Previously unrecorded fires that are now covered by the Order

As noted in section 3.2, Jemena and United Energy provided estimates of fire starts for events which may have started a fire, but were previously unrecorded as starting a fire start. This may be due to different fire definitions being applied at the time of recording. Other DNSPs did not propose such adjustments to the historical data.

3.5.1.1 Jemena's estimated previously unrecorded fire starts

The AER accepts Jemena's proposed estimated fire starts because its justification for the estimation is plausible and its estimation technique appears reasonable. Jemena removed pole fires before making assumptions on the numbers of unrecorded fire starts. Pole fires usually result in supply outages (or require replacing before causing an outage) and are therefore known by DNSPs. Additionally, SKM commented that

²⁴ SKM, *F-Factor Incentive Scheme Final*, 19 September 2011, p.15.

²⁵ *ibid* p.16.

²⁶ *ibid* p.16.

²⁷ *ibid* p.17.

²⁸ *ibid*, p.17.

²⁹ *ibid*, p. 4.

Jemena's recording and reporting of fires starts is robust³⁰ but the previous ESV definition of fire starts did not require small fires to be reported. The AER considers that it is not unreasonable that only 80 per cent of non pole fire starts may have been recorded in the past.

SKM also considered Jemena's proposed unrecorded fire starts should be included in developing an average number of fire starts under the f-factor scheme.³¹ Thus, the AER has accepted Jemena's proposal to increase its fire target by 1.7.³²

3.5.1.2 United Energy's estimated previously unrecorded fire starts

As noted above, United Energy proposed a method for making an adjustment to its proposed fire start target for the number of estimated fires—fires that may have occurred but were not recorded. This method differed from that of Jemena, which also proposed such an adjustment.

United Energy's method was to first identify those events which commonly result in fires starts, but which had not been recorded as fire starts in its database. Then it used an assumption that a percentage of these events would have resulted in a fire start.

The impact of United Energy's proposed method was to increase the number of fire starts over five years by ■■■, which would have the effect of increasing its annual target by ■■■. SKM considered United Energy's claim was reasonable and thus recommended a fire start target of 132.³³

The total number of historical events, under different categories, that might have resulted in fire starts and the proposed assumed percentages of each of the categories that would have resulted in a fire start submitted by United Energy are outlined in table 3.5.1.

³⁰ SKM noted fire start reports were sourced by DNSPs from their core business systems. Also, the processes to collect the data are robust and well controlled. SKM, *F-Factor Incentive Scheme Final*, 19 September 2011, p. 15-17.

³¹ SKM, *F-Factor Incentive Scheme Final*, 19 September 2011, p. 15.

³² The AER's draft decision is to accept Jemena's method for estimating fire starts. The AER considers the method, as described by Jemena, would increase the fire start target by 2.1, however, Jemena proposed an adjustment of 1.7 fires starts.

³³ SKM, *F-factor Incentive Scheme*, Addendum, 22 September 2011, p. 2.

Table 3.5.1 United Energy, events which may result in a fire start

| Unrecorded fire start category | | |
|--------------------------------|--|--|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| Total | | |

Source: United Energy RIN, confidential and United Energy letter to the AER dated 20 September 2011.

The AER noted that United Energy's proposed method resulted in a significantly high number of unrecorded fire starts when compared to recorded fire starts of a similar category—for example, United Energy submitted [REDACTED] actual recorded fires resulting from animal contact with network assets in their updated RIN, but submitted [REDACTED] additional estimated fires starts relating to [REDACTED].³⁴

As SKM found that all DNSPs', including United Energy's, historical fire start data was balanced and robust, the AER considers that most of the historical fire starts would have been recorded. Hence, the unrecorded fires under any category should not be larger than the recorded ones. Therefore, the AER is concerned about the assumptions proposed by United Energy.

Further, as United Energy identified a large number of potential fire start events, a small difference in the assumption of the percentage of any particular category of such events that would have resulted in fire starts, will have a large impact on the total fire start numbers. Thus, the AER considers that United Energy's approach is prone to generate substantive errors.

The AER notes that United Energy did not provide a statistical basis for the percentages outlined in table 3.5.1. Therefore, the AER sought an alternative way to test the reasonableness of United Energy's estimated fire starts, given the sensitivity to a small change in percent assigned to the category. While all the numbers are estimates, the AER considers United Energy's proposed method is likely to be on the

³⁴ United Energy, *Updated RIN and RIN Cover letter*, 21 September 2011. The AER notes that the two categories compared in this example may not contain exactly the same type of events. However, the AER still considers the discrepancy to be large.

high end of expected occurrences given that its record system to identify fire starts is considered robust by SKM and the AER.

The AER understands that until 30 July 2011, Jemena Asset Management was the exclusive provider of services including network planning, construction, management, operation, maintenance and engineering to United Energy.³⁵ Thus, the AER considers that the percentage of United Energy's unrecorded fire start events should not differ significantly from that of Jemena.

As Jemena's assumptions appear reasonable—including the recognition that almost all pole fires would have been recorded³⁶—the AER considers it appropriate to adopt the same method as proposed by Jemena to estimate the previously unrecorded fires. Based on this method, the AER removed pole and cross arm related fires from United Energy's updated proposal (████ in total) and then calculated an adjustment which assumes that 80 per cent of other fire starts were accurately recorded. This resulted in an adjustment of █████ fires (██████████), or an increase to United Energy's annual target of █████ (calculated subject to the comments in section 3.5.2).

To determine whether the AER's number of estimated fire starts is reasonable, the AER checked the adjustment against the actual number of fire starts submitted by United Energy. The AER's adjustment represents approximately 10.8 per cent of the actual fire starts incidents submitted by United Energy.³⁷ Given SKM's assessment that the DNSPs' reporting is robust,³⁸ the AER considered an assumption that 10 per cent of fire starts were not recorded, possibly arising from different historical reporting requirements, would be reasonable to account for previously unrecorded fire starts for United Energy. The AER also considers its adjustment is more likely to be closer to the number of unrecorded fire starts than that proposed by United Energy. Therefore, the AER's draft decision is to set United Energy's fire start target at 124, which is lower than SKM's recommendation of 132.³⁹

3.5.2 Data accuracy

The AER sent further requests for information regarding the data provided by the DNSPs after receiving advice from the AER's consultant SKM.⁴⁰ This related to concerns over data accuracy.

SP AusNet submitted that some of the fire starts it had originally submitted to the AER had been duplicated. SP AusNet deleted 6 fire start events and resubmitted its data.⁴¹ The AER verified that SP AusNet's new data addressed the duplication problems and considered that the other information provided by SP AusNet appeared reasonable. SKM accepted SP AusNet's responses as valid.⁴² SKM recommended a

³⁵ AER, *Victorian distribution determination 2011–15*, October 2010, Section 6.6.5.3.

³⁶ Jemena, *RIN*, 22 August 2011, confidential.

³⁷ Calculated after removing duplicate fire start records.

³⁸ SKM p.15, 16.

³⁹ SKM, *F-factor Incentive Scheme*, Addendum, 22 September 2011, p.2.

⁴⁰ AER, *email to DNSPs*, 15 September 2011.

⁴¹ SP AusNet, *email to AER*, 16 September 2011, confidential.

⁴² SKM, *F-factor Incentive Scheme*, Addendum, 22 September 2011, p.2.

fire start target of 257, which was SP AusNet's proposed target after removing the duplicate entries.

Jemena proposed some fire starts that appeared to the AER and SKM to be duplicates. However, in response to the AER's query, Jemena provided evidence to the AER that there were multiple fires albeit only recorded under one record number, and that these fires were reported to the ESV on this basis.⁴³ Therefore, the AER considers Jemena's data is accurate. The AER's view is confirmed by SKM which recommends Jemena's fire start target should be 57, as initially proposed to the AER.⁴⁴

After its initial proposal, CitiPower identified one duplicate fire start record, which it removed and then resubmitted the fire start information.⁴⁵ The AER and SKM did not identify any additional duplicates in the data. Therefore, the AER's draft decision is to accept the adjusted fire start target proposed by CitiPower. This is also in line with SKM's advice, which recommended CitiPower's fire start target be set at 30.⁴⁶

The AER and SKM identified a number of entries in Powercor's data which appeared to be duplicates. Powercor re-examined the details of the possible duplicate entries and confirmed that there were [REDACTED] duplicate entries.⁴⁷ However, some of the fire starts queried by the AER were not duplicates, but were cases where more than one fire start had been entered under a particular record number. The AER has removed the duplicated fire start events from Powercor's data.

An additional issue was that some of the fault descriptions provided by Powercor were identical. The AER requested additional information from Powercor on a selection of these events, [REDACTED]

[REDACTED] The information provided by Powercor demonstrated that, in most cases, the database reports clearly identified fire starts which would meet the definition contained in the Order.

In the remaining cases, [REDACTED], the database reports had not clearly identified these events as fire starts. Powercor explained that the nature of the event, given the classification of the event in the database, would have resulted in a fire start under the definition contained in the Order. These events only accounted for a small proportion of Powercor's overall fire start events

[REDACTED] however, it accepted the explanation and supplementary information provided by Powercor.

⁴³ Jemena, email to AER, 20 September 2011, confidential.

⁴⁴ SKM, *F-factor Incentive Scheme*, Addendum, 22 September 2011, p.2.

⁴⁵ Powercor, *Resubmitted RIN*, 12 September 2011.

⁴⁶ SKM, *F-factor Incentive Scheme*, Addendum, 22 September 2011, p.3.

⁴⁷ Powercor, *email to the AER*, 21 September 2011, confidential.

⁴⁸ After removing the duplicated records from the data.

⁴⁹ SKM, *F-factor Incentive Scheme*, Addendum, 22 September 2011.

SKM recommended a fire start target of 401 for Powercor.⁵⁰ The AER was satisfied with Powercor's explanation, and hence the AER considers that the [REDACTED] events would have resulted in fire starts under the definition contained in the Order. The AER draft decision for Powercor's target is slightly higher than SKM's recommendation because the AER is satisfied that all the [REDACTED] events would have resulted in a fire start. The AER intends to highlight this issue in future auditing as recommended by SKM.

United Energy responded to the AER's questions about record duplication by explaining that some fire starts had been assigned incorrect record numbers. Most of these fire starts had a unique record number, but had been entered incorrectly in United Energy's original response.⁵¹ United Energy provided the correct record numbers of 37 fire starts.⁵²

United Energy also confirmed that some of the fire starts questioned by the AER were actually duplications, which United Energy removed from the revised fire start information.⁵³

After reviewing United Energy's additional information, the AER identified that there was still one duplication in United Energy's data [REDACTED]. Hence, the AER concluded that United Energy's fire start number should be reduced by one.

Overall, the AER accepts that the fire start information provided by the DNSPs is accurate because:

- SKM and the AER reviewed the data provided by the DNSP. The queries SKM and the AER had with the DNSPs' respective proposals were addressed by the relevant DNSP to the satisfaction of the AER.
- SKM found that all Victorian DNSPs appear to have robust systems to capture reliability data and the fire start data is sourced from DNSPs' core business systems.⁵⁴ SKM undertook on site visits with the DNSPs. Additionally, the AER has not found any substantial issues regarding the DNSPs' submitted data through the AER's cross checking and analysis. The AER considers any remaining errors and double counting are likely the result of manual transfer of data from one system to another. Once, the record system is automated, the error is expected to be small. Hence, the AER accepts SKM's advice.
- The aggregate number of fire starts appears reasonable when compared to the MFB, CFA and DSE data.

⁵⁰ SKM, *F-factor Incentive Scheme*, Addendum, 22 September 2011.

⁵¹ United Energy, *Further information pertaining to United Energy's response to the F-factor, Regulatory Information Notice*, 20 September 2011, confidential.

⁵² United Energy, *Further information pertaining to United Energy's response to the F-factor, Regulatory Information Notice*, 20 September 2011, confidential.



⁵³ United Energy, *Further information pertaining to United Energy's response to the F-factor, Regulatory Information Notice*, 20 September 2011, confidential.

⁵⁴ SKM p.15, 16.

3.6 AER conclusion on fire start targets

Having considered the information received from the DNSPs, other information and consultant reports, the AER has decided to apply the following fire start targets to each Victorian DNSP.

Table 3.6.1 AER draft decision on fire start target for Victorian DNSPs 2012–15, compared with the targets proposed by DNSPs

| DNSP | Fire Start Target determined by the AER | <i>Fire Start Target proposed by DNSPs</i> |
|---------------|--|---|
| CitiPower | 30.4 |  |
| Powercor | 401.8 |  |
| Jemena | 56.8 | 56.8 |
| SP AusNet | 256.8 | 258 |
| United Energy | 124.2 | 133.4 |

4 Draft f-factor scheme determinations

This section outlines the AER's f-factor scheme draft determinations for each DNSP.

4.1 CitiPower f-factor scheme determination

Under clause 6(1) of the F-factor Scheme Order 2011 (the Order) made under section 16C of the National Electricity (Victoria) Act 2005, the Australian Energy Regulator (AER) must make an f-factor scheme determination in relation to CitiPower Pty Ltd (ABN 76 064 651 056) (CitiPower). Under clause 6(2) of the Order, the AER must make, no later than 31 December 2011, an f-factor scheme determination to take effect in the first distribution determination period. The first distribution determination period is the period of 1 January 2011 to 31 December 2015.

Under clause 7(1) of the Order, an f-factor scheme determination must establish an f-factor scheme that complies with the Order and under which there is a revenue adjustment for a DNSP.

In accordance with clause 7(2) of the Order the revenue adjustment for CitiPower must be determined by the AER as follows:

$$\text{Revenue adjustment}_{t,n} = \sum_{m=1}^q \text{Incentive rate}_{t-2,n,m} \times (\text{Target no. of fires}_{t-2,n,m} - \text{Number of fires}_{t-2,n,m})$$

where the distribution system is made up of q parts and—

- (a) **Revenue adjustment_{t,n}** is the adjustment to the revenue for Distribution Network Service Provider n for regulatory year t ;
- (b) **Incentive rate_{t-2,n,m}** is the incentive rate for part m of distribution system n for regulatory year $t-2$, determined in accordance with clause 10 or 11 of the Order as the case may be;
- (c) **Target no. of fires_{t-2,n,m}** is the fire start target for regulatory year $t-2$ for part m of distribution system n , determined in accordance with clause 8 of the Order; and
- (d) **Number of fires_{t-2,n,m}** is the number of fire starts in relation to part m of distribution system n that occurred in regulatory year $t-2$, determined in accordance with clause 9 of the Order.

In accordance with clause 8(1) of the Order the AER determines that for the first distribution determination period the target number of fire starts for CitiPower is 30.4.

Under clause 10 of the Order the incentive rate for the first distribution period is \$25,000.

4.2 Jemena f-factor scheme determination

Under clause 6(1) of the F-factor Scheme Order 2011 (the Order) made under section 16C of the National Electricity (Victoria) Act 2005, the Australian Energy Regulator (AER) must make an f-factor scheme determination in relation to Jemena Electricity Networks (Victoria) ABN 82 064 651 083 (Jemena). Under clause 6(2) of the Order, the AER must make, no later than 31 December 2011, an f-factor scheme determination to take effect in the first distribution determination period. The first distribution determination period is the period of 1 January 2011 to 31 December 2015.

Under clause 7(1) of the Order, an f-factor scheme determination must establish an f-factor scheme that complies with the Order and under which there is a revenue adjustment for a DNSP.

In accordance with clause 7(2) of the Order the revenue adjustment for Jemena must be determined by the AER as follows:

$$\text{Revenue adjustment}_{t,n} = \sum_{m=1}^q \text{Incentive rate}_{t-2,n,m} \times (\text{Target no. of fires}_{t-2,n,m} - \text{Number of fires}_{t-2,n,m})$$

where the distribution system is made up of q parts and—

- (a) *Revenue adjustment* _{t,n} is the adjustment to the revenue for Distribution Network Service Provider n for regulatory year t ;
- (b) *Incentive rate* _{$t-2,n,m$} is the incentive rate for part m of distribution system n for regulatory year $t-2$, determined in accordance with clause 10 or 11 of the Order as the case may be;
- (c) *Target no. of fires* _{$t-2,n,m$} is the fire start target for regulatory year $t-2$ for part m of distribution system n , determined in accordance with clause 8 of the Order; and (d) *Number of fires* _{$t-2,n,m$} is the number of fire starts in relation to part m of distribution system n that occurred in regulatory year $t-2$, determined in accordance with clause 9 of the Order.

In accordance with clause 8(1) of the Order the AER determines that for the first distribution determination period the target number of fire starts for Jemena is 56.8.

Under clause 10 of the Order the incentive rate for the first distribution period is \$25,000.

4.3 Powercor f-factor scheme determination

Under clause 6(1) of the F-factor Scheme Order 2011 (the Order) made under section 16C of the National Electricity (Victoria) Act 2005, the Australian Energy Regulator (AER) must make an f-factor scheme determination in relation to Powercor Australia Ltd ABN 89 064 651 109 (Powercor). Under clause 6(2) of the Order, the AER must make, no later than 31 December 2011, an f-factor scheme determination to take effect in the first distribution determination period. The first distribution determination period is the period of 1 January 2011 to 31 December 2015.

Under clause 7(1) of the Order, an f-factor scheme determination must establish an f-factor scheme that complies with the Order and under which there is a revenue adjustment for a DNSP.

In accordance with clause 7(2) of the Order the revenue adjustment for Powercor must be determined by the AER as follows:

$$\text{Revenue adjustment}_{t,n} = \sum_{m=1}^q \text{Incentive rate}_{t-2,n,m} \times (\text{Target no. of fires}_{t-2,n,m} - \text{Number of fires}_{t-2,n,m})$$

where the distribution system is made up of q parts and—

- (a) **Revenue adjustment** $_{t,n}$ is the adjustment to the revenue for Distribution Network Service Provider n for regulatory year t ;
- (b) **Incentive rate** $_{t-2,n,m}$ is the incentive rate for part m of distribution system n for regulatory year $t-2$, determined in accordance with clause 10 or 11 of the Order as the case may be;
- (c) **Target no. of fires** $_{t-2,n,m}$ is the fire start target for regulatory year $t-2$ for part m of distribution system n , determined in accordance with clause 8 of the Order; and (d) **Number of fires** $_{t-2,n,m}$ is the number of fire starts in relation to part m of distribution system n that occurred in regulatory year $t-2$, determined in accordance with clause 9 of the Order.

In accordance with clause 8(1) of the Order the AER determines that for the first distribution determination period the target number of fire starts for Powercor is 401.8.

Under clause 10 of the Order the incentive rate for the first distribution period is \$25,000.

4.4 SP AusNet f-factor scheme determination

Under clause 6(1) of the F-factor Scheme Order 2011 (the Order) made under section 16C of the National Electricity (Victoria) Act 2005, the Australian Energy Regulator (AER) must make an f-factor scheme determination in relation to SPI Electricity Pty Ltd ABN 91 164 651 118 (SP AusNet). Under clause 6(2) of the Order, the AER must make, no later than 31 December 2011, an f-factor scheme determination to take effect in the first distribution determination period. The first distribution determination period is the period of 1 January 2011 to 31 December 2015.

Under clause 7(1) of the Order, an f-factor scheme determination must establish an f-factor scheme that complies with the Order and under which there is a revenue adjustment for a DNSP.

In accordance with clause 7(2) of the Order the revenue adjustment for SP AusNet must be determined by the AER as follows:

$$\text{Revenue adjustment}_{t,n} = \sum_{m=1}^q \text{Incentive rate}_{t-2,n,m} \times (\text{Target no. of fires}_{t-2,n,m} - \text{Number of fires}_{t-2,n,m})$$

where the distribution system is made up of q parts and—

- (a) **Revenue adjustment** $_{t,n}$ is the adjustment to the revenue for Distribution Network Service Provider n for regulatory year t ;
- (b) **Incentive rate** $_{t-2,n,m}$ is the incentive rate for part m of distribution system n for regulatory year $t-2$, determined in accordance with clause 10 or 11 of the Order as the case may be;
- (c) **Target no. of fires** $_{t-2,n,m}$ is the fire start target for regulatory year $t-2$ for part m of distribution system n , determined in accordance with clause 8 of the Order; and (d) **Number of fires** $_{t-2,n,m}$ is the number of fire starts in relation to part m of distribution system n that occurred in regulatory year $t-2$, determined in accordance with clause 9 of the Order.

In accordance with clause 8(1) of the Order the AER determines that for the first distribution determination period the target number of fire starts for SP AusNet is 256.8.

Under clause 10 of the Order the incentive rate for the first distribution period is \$25,000.

4.5 United Energy f-factor scheme determination

Under clause 6(1) of the F-factor Scheme Order 2011 (the Order) made under section 16C of the National Electricity (Victoria) Act 2005, the Australian Energy Regulator (AER) must make an f-factor scheme determination in relation to United Energy Distribution ABN 70 064 651 029 (United Energy). Under clause 6(2) of the Order, the AER must make, no later than 31 December 2011, an f-factor scheme determination to take effect in the first distribution determination period. The first distribution determination period is the period of 1 January 2011 to 31 December 2015.

Under clause 7(1) of the Order, an f-factor scheme determination must establish an f-factor scheme that complies with the Order and under which there is a revenue adjustment for a DNSP.

In accordance with clause 7(2) of the Order the revenue adjustment for United Energy must be determined by the AER as follows:

$$\text{Revenue adjustment}_{t,n} = \sum_{m=1}^q \text{Incentive rate}_{t-2,n,m} \times (\text{Target no. of fires}_{t-2,n,m} - \text{Number of fires}_{t-2,n,m})$$

where the distribution system is made up of q parts and—

- (a) *Revenue adjustment* _{t,n} is the adjustment to the revenue for Distribution Network Service Provider n for regulatory year t ;
- (b) *Incentive rate* _{$t-2,n,m$} is the incentive rate for part m of distribution system n for regulatory year $t-2$, determined in accordance with clause 10 or 11 of the Order as the case may be;
- (c) *Target no. of fires* _{$t-2,n,m$} is the fire start target for regulatory year $t-2$ for part m of distribution system n , determined in accordance with clause 8 of the Order; and (d) *Number of fires* _{$t-2,n,m$} is the number of fire starts in relation to part m of distribution system n that occurred in regulatory year $t-2$, determined in accordance with clause 9 of the Order.

In accordance with clause 8(1) of the Order the AER determines that for the first distribution determination period the target number of fire starts for United Energy is 124.2.

Under clause 10 of the Order the incentive rate for the first distribution period is \$25,000.

5 Next steps

5.1 Final determination

After submissions on this paper have been received and considered, the AER will issue the final f-factor scheme determinations and explanatory statement by 31 December 2011.

After making the final f-factor scheme determinations, the AER will make annual f-factor amount determinations from 2013, to apply the financial rewards and penalties prescribed by the scheme.

5.2 Ongoing reporting against the fire start targets

Under clause 5 of the Order, the AER may request DNSPs to report fire starts for the previous regulatory year. The AER will require DNSPs to do so for the purpose of administering the f-factor scheme. The ongoing fire start performance will be compared to the fire start targets to calculate the financial rewards and penalties arising from the f-factor scheme.

The definition of a fire start is contained in clause 4 of the Order. The DNSPs have provided historical fire start information in accordance with this definition. The AER notes that the definition in the order is quite broad, and therefore, in section 3.5, the AER gave an example of how it will interpret and apply the definition. The AER considers it appropriate to report ongoing fire starts in the manner with which the targets were set—to the extent the reporting is consistent with the Order's fire start definition. The AER has not turned its mind to every possible type of fire start that may occur. Therefore, it is possible that types of fire starts, which were not included in setting the fire start targets, will need to be reported when applying the f-factor scheme. This will only be required to the extent the incident is captured under the fire start definition in the Order.

As discussed in section 2 of this paper, DNSPs are required to report certain fire starts to the ESV. The ESV's definition of fire starts differs from that in the Order. The AER considers the ESV's fire start definition to be a subset of the Order's fire start definition. For example, the Order includes fires starts caused by lightning striking a distribution system.⁵⁵ The AER will seek to streamline DNSPs' ongoing reporting and data verification arrangements with the ESV.

⁵⁵ National Electricity (Victoria) Act 2005, F-FACTOR SCHEME ORDER 2011, clause 4(1)(d).