

Annex 2 - Explanation of Authority's reasons for the direction issued under special condition C2 pursuant to special condition CRC8 – EDF Energy Networks (LPN) plc

1. Introduction

1.1. The Authority is required to consider whether to adjust EDF Energy Networks (LPN) plc's ("EDFE LPN")¹ 2009/10 performance for the number and duration of interruptions to account for the claimed exceptional event in Dartford between 20 and 23 July 2009. This document sets out the reasons for the direction issued to EDFE LPN.

1.2. Having considered the responses to our "minded to" consultation document and having carried out a further review of the relevant legal test, the Authority has determined that EDFE LPN should not carry the interruptions penalties associated with the Dartford incident for the reasons set out below.

1.3. The structure of the rest of this document is as follows:

- Section 2 sets out the Interruptions Incentive Scheme (IIS);
- Section 3 describes the Dartford Incident;
- Section 4 sets out the claim submitted by EDFE LPN for consideration under the IIS exceptional events mechanism;
- Section 5 summarises the Examiner's² recommendations;
- Section 6 sets out the Authority's minded to consultation and summarises the responses received from interested parties; and
- Section 7 sets out the Authority's proposed revisions to performance for the exceptional event.

2. Interruptions Incentive Scheme

2.1. Ofgem is responsible for administering the IIS which forms part of the licences of the electricity distribution network operators (DNOs), such as EDFE LPN. The IIS sets targets for performance to encourage DNOs to improve the level of interruptions to consumers. The IIS was introduced as part of the price control arrangements in 2002 and subsequently updated in 2005 and 2010. The scheme recognises that the number and duration of supply interruptions are a key element of the quality of service provided by DNOs and that they can manage their level of performance in a number of ways. For example, they may invest in replacing assets which have seen a large number of faults. Alternatively they may invest in equipment which changes the configuration of supplies when a fault arises so that customers only experience a momentary loss of supply.

2.2. The IIS provides DNOs with annual rewards and penalties depending on each DNO's performance against its targets. We set separate targets for the number of customers interrupted per 100 customers (CI) and the number of customer minutes lost per customer (CML).

¹ Direction issued under paragraph 13 of special licence condition C2 pursuant to paragraph 8.58 of Part K of special condition CRC8 of the licence (the "Licence") treated as granted to EDFE LPN under section 6(1)(c) of the Electricity Act 1989

² British Power International Limited (the "Examiner") was appointed as Examiner pursuant to paragraph 13 of special condition C2.

- 2.3. We set the CI and CML targets for each DNO for the period 2005 to 2010 as part of the fourth price control review (DPCR4). We also set incentive rates for each of the DNOs. These are used to calculate the rewards or penalties based on the DNO's actual performance (after appropriate adjustments for accuracy and exceptional events) against its targets. These rewards or penalties have a direct effect on the DNO's revenue and, ultimately, their profit. The IIS provides a direct financial incentive to manage supply interruptions.
- 2.4. The IIS recognises that some events that lead to a large number of interruptions may be outside the direct control of the DNO, although they may take action to mitigate their impact. Exceptional events may include major storms that cause physical damage to the network or other events outside the control of the DNO. Where an event is deemed to be exceptional and outside of the DNO's control then there are provisions in the licence for the impact of the event to be excluded from the IIS data for the reporting year in question.
- 2.5. For events such as Dartford, the licence provides for Ofgem to appoint an Examiner to report on the event and its effect on the DNO's performance under the IIS.

3. The Dartford Incident

- 3.1. On Monday 20 July 2009 a fire irreparably damaged the four 132kV cables and pilot cables at the Dartford Creek cable bridge. This event materially and adversely affected EDFE LPN's reported performance for the reporting year 2009/10. At the time of the event, the cables formed the main outfeeds from EDFE's Littlebrook Grid Substation into both its EDFE LPN and its EDFE SPN licensed areas. The incident had a major impact on the supplies to customers fed from these networks.
- 3.2. EDFE began continuous emergency repair work immediately after it was given access to the site by the Kent Police, who had initially declared the site a 'crime scene' under its processes for dealing with a critical incident.
- 3.3. The loss of these main outfeeds severely restricted EDFE's ability to restore supplies and EDFE had to invoke rota connections³ to provide limited supplies to approximately 34,000 customers until the first 132kV circuit was restored on Thursday 23 July 2009. A further 5,000 customers were without supply throughout the duration of the event. In total 77,543 of EDFE LPN's customers' supplies were interrupted. Additionally, approximately 17,000 of EDFE SPN's customers' supplies were also interrupted.

4. Dartford exceptional event claim submitted by EDFE LPN for 2009/10 reporting year

- 4.1. EDFE LPN notified the Authority in July 2009 that it considered the Dartford incident to have been exceptional event under the IIS. The table below sets out EDFE LPN's view of the impact of the Dartford incident on its 2009/10 performance.

Table 4.1: Dartford exceptional event claim

Date	Event	Claimed adjustments	
		CI	CML
Dartford exceptional event claim	132kV cable bridge fire	3.48	68.00

³ A programme of planned, sequential supply reconnections/disconnections to achieve a reduction in total supply demand in a certain area.

5. Examiner's recommendations

- 5.1. The Examiner's report⁴ found that the Dartford event was exceptional; having breached the one-off customer interruption threshold of 1.1 CI, with 77,543 customers interrupted for 3 or more minutes and also breached the one-off interruption duration threshold of 0.9 CML with 151,194,832 customer minutes lost during the event. The audited impact on EDFE LPN's CIs and CMLs, in excess of the thresholds that EDFE LPN would be expected to bear, are set out in Table 5.1.
- 5.2. However, the Examiner considered that EDFE LPN had not taken all appropriate mitigating actions⁵ relating to this event. The Examiner therefore recommended that EDFE LPN's 2009/10 performance should not be adjusted to exclude the audited impact. In other words, the Examiner's recommendation was that EDFE LPN should bear the full penalty from interruptions associated with the Dartford incident.

Table 5.1: Audited impact of the Dartford exceptional event claim

Date	Event	Audited impact in excess of thresholds		Examiner's recommended adjustments	
		CI	CML	CI	CML
Dartford exceptional event claim	132kV cable bridge fire	2.36	66.55	0.00	0.00

6. The Authority's minded to consultation

- 6.1. In June 2010 we published a consultation document containing our minded to position to implement the recommendations of the Examiner. In that document, we consulted on our preliminary conclusions that:
- the event was outside EDFE LPN's control, as a result of third party interference, and exceeded the thresholds for CIs and CMLs;
 - EDFE LPN took appropriate steps following the event to limit the number of customers interrupted and to restore customers' supplies quickly and efficiently; but
 - EDFE LPN did not take sufficient actions prior to the event to reduce the risk of it occurring.
- 6.2. With regard to the last point, we explained that we thought EDFE LPN should have carried out a sufficiently effective risk assessment and taken stronger measures to reduce the risk of an incident of this nature. We noted that the Dartford Creek cable bridge is a strategically important part of EDFE LPN's network and that any major failure on this part of the network would have a very high impact on electricity supply to customers in the EDFE LPN network area and to some customers in the adjacent EDFE SPN area. We considered that risk assessment exercises should have flagged this to EDFE LPN and that they should have considered the costs and benefits of further options for ensuring resilience on this part of its network - especially because EDFE LPN experienced a similar incident in 2004. We thought that as a minimum EDFE LPN should have had a higher frequency of maintenance inspections and a higher level of security than was in place at Dartford Creek at the time of the fire.

⁴ Information and Incentives Project – Appointed Examiner's Report of an Exceptional Event Claim from EDF Energy Networks (LPN) plc for fire damage to 132kV and pilot cables at Dartford Creek cable bridge", British Power International, May 2010

⁵ As set out in Annex D of special condition C2 pursuant to Annex 4 of special condition CRC8

6.3. In coming to its "minded to" position the Authority balanced EDFE LPN's performance after the event against the weaknesses prior to the event occurring. It considered EDFE LPN's approach to the security of the Dartford Creek cable bridge and their reaction following the event. In reviewing EDFE LPN's approach the Authority considered their reaction to previous incidents (both at the Dartford site and other incidents), the physical security and the risk they have attached to the site. The Authority was satisfied that EDFE LPN reacted well following the event, as we would expect from any DNO. Nonetheless, given the importance of the site and the history of previous interference, it was minded to allow no adjustments to be made to incentivised customer interruptions and customer minutes lost given the weaknesses in the mitigating actions prior to the event.

7. Responses to the minded to consultation

- 7.1. Responses from parties other than the DNOs were generally supportive of the "minded to" position, with a widespread sentiment being that the lack of actions identified in the Examiner's report should preclude EDFE LPN from having the event exempted from the incentive scheme.
- 7.2. In addition, a number of network operators, CE Electric, SP Energy Networks and ENW, indicated a range of pre-event mitigation actions that they undertake to understand risk on their networks and identify appropriate strategies for dealing with the various threats. Several of the DNOs appeared to be more pro-active than EDFE LPN in how they currently assess and address risk at sites such as Dartford.
- 7.3. However, both EDFE and CE Electric challenged our interpretation of the legal test for exemptions under the IIS arguing that there must be a direct causal link between a DNO's actions (or lack of actions) and the event. According to their reading of the licence condition, it is necessary to consider whether the actions (or lack of actions) are likely to have made any difference to the event occurring. They argued that a DNO cannot be criticised for failing to take a step which cannot be guaranteed to have made any difference to the circumstances occurring; nor can it be criticised for failing to take a step which – although it would have made a difference – would have been totally disproportionate to the risk of those circumstances occurring.
- 7.4. Also, in response to both the Examiner's and our belief that the frequency of inspections at Dartford was an issue, Western Power Distribution, Central Networks and SP Energy Networks have all indicated that more frequent inspections may give an indication of the appropriateness of current security measures they cannot in themselves prevent forced entry to substations.

8. Authority's direction - revisions to performance

Authority proposal

- 8.1. The Authority has considered the recommendations of the Examiner and other relevant information and circumstances (such as EDFE LPN's statement of facts and the responses to the "minded to" consultation) and is satisfied that the Dartford incident was exceptional. The Authority may, therefore, in accordance with the provisions of the licence⁶ make adjustments to EDFE LPN's data in excess of the relevant CI and CML thresholds in respect of the event.
- 8.2. As discussed in paragraph 5.2 the Examiner considered that whilst EDFE LPN took all appropriate steps within its power to limit the number of customers interrupted by the event and to restore customers' supplies quickly and efficiently, having due regard to

⁶ Paragraph 13 of special condition C2 pursuant to paragraph 8.58 of Part K of special condition CRC8

safety and other legal obligations its lack of pre-event actions were in the Examiner's view contributory factors to the occurrence of the event.

- 8.3. The Authority continues to have significant concerns about the pre-event actions of EDFE LPN, namely the lack of an up to date risk assessment for the site. That no evidence has been presented of a cost benefit analysis in relation to additional security arrangements or alternative configurations of the local network compares less favourably with those DNOs that appear more pro-active. In the absence of an up to date cost benefit analysis, the Authority cannot decide if the company has employed an appropriate level of signage, frequency of inspections or security arrangements at the site but also accepts that it cannot conclude that absence of such signage, frequency of inspection or security arrangements were contributory factors to the occurrence of the event.
- 8.4. Following consideration of the consultation responses to our "minded to" document, and having carried out a further review of the relevant legal test, we are of the view that before we can expose a DNO to the impact of IIS penalties associated with exceptional events, we need to demonstrate that EDFE LPN's actions (or lack of actions) were contributory factors to the occurrence of the event.
- 8.5. As respondents to our "minded to" consultation spelt out, more frequent inspections of sites do not guarantee a reduction in vandalism and theft. We have no evidence to indicate that an increased inspection frequency at Dartford would have produced a reduction in the likelihood of unauthorised entry.
- 8.6. On balance, we consider that the failure to carry out an extensive and up to date risk assessment is not grounds in itself for rejecting a claim. We would have to be able to demonstrate that a thorough risk assessment would have identified areas that could have been improved and additionally, that these actions would have been a proportionate response to the risk involved. Neither the Examiner's report nor any of the responses to the "minded to" consultation have identified proportionate actions that would have been likely to have resulted in a reduction in the likelihood of the occurrence of the event.
- 8.7. Failure to include notices at the site, as is the case at substations, is not a valid reason for rejecting the claim, unless there is evidence that sites that carry signage are subject to less third party interference than those that are not. We have no such evidence.
- 8.8. In light of the review of the legal test that was the original basis for a "minded to" rejection of EDFE LPN's claim the Authority has decided, notwithstanding its continued concerns as set out in paragraph 8.3, that EDFE LPN should not carry the interruptions penalties associated with the Dartford incident. In the light of this, and of its principal objective and general duties, the Authority is satisfied that it is appropriate to exercise its powers under the licence⁷ and adjust EDFE LPN's performance data to exclude the customer interruptions in excess of the threshold of 1.1 CI and customer minutes lost in excess of the threshold of 0.9 CML as set out in Table 5.1 above.
- 8.9. The impact of the changes here relate to the adjustment to price control revenue under the incentive scheme, rather than payments to individual customers under the guaranteed standards of performance.
- 8.10. The adjustments to the annual performance data are shown in Table 8.1 below.

⁷ paragraph 13 of special condition C2 pursuant to paragraph 8.58 of Part K of special condition CRC8

Table 8.1: Adjustments to 2009/10 performance data for the Dartford exceptional event claim

	Performance figures for 2009/10		Change for Dartford exceptional event		Performance figures for 2009/10 adjusted for Dartford exceptional event	
	CI	CML	CI	CML	CI	CML
Unplanned	30.16	112.68	-2.36	-66.55	27.80	46.13
Pre-arranged	1.24	2.74	0.00	0.00	1.24	2.74
NGT or other transmission company	0.00	0.00	0.00	0.00	0.00	0.00
Distributed generators	0.00	0.00	0.00	0.00	0.00	0.00
Other connected systems	0.00	0.00	0.00	0.00	0.00	0.00
Overall CI & CML for 2009/10	31.4	115.4	-2.36	-66.55	29.0	48.9
Overall CIIS & CMLIS for 2009/10	30.8	114.1	-2.36	-66.55	28.4	47.5

Note: The numbers may not add due to rounding

8.11. The Authority proposes that:

- CIIS for the reporting year commencing 1 April 2009 should be reduced by 2.36 from 30.8 to 28.4.
- CMLIS for the reporting year commencing 1 April 2009 should be reduced by 66.55 from 114.1 to 47.5.

8.12. The Authority has some ongoing concerns following this work about the application of this licence condition. It will be undertaking an in-depth review of all of the relevant licence conditions in order to ensure that proportionate requirements are on all DNOs to assess and, where appropriate, to take steps to address risk. In future we would expect to be in a position where failure to adequately demonstrate a sufficiently robust risk assessment would make a DNO liable for penalties under the licence, be that the IIS mechanism or another part of the arrangements that are intended to protect customers. The Authority also intends to engage with industry and stakeholders on the broader question of site security and the actions and evidence that all DNO's must be able to demonstrate going forwards.