

Notice of Proposed Income
Adjusting Event –
Alcan 2011/13

About this document

This document sets out the additional costs of system operation incurred due to the loss of Alcan as a Static Frequency Response provider in December 2011 and the reasons that National Grid considers this to constitute an Income Adjusting Event (IAE) in accordance with Special Condition AA5A Part 2(i), paragraph 11 of National Grid Electricity Transmission plc's Transmission Licence.

Executive Summary

- 1 National Grid had a balancing services contract with Alcan Ltd to provide Static Low Frequency tripping service as part of our requirement to secure and efficiently manage the National Electricity Transmission System (NETS). The provision of this service incurred an Availability Fee for any operational day the service was declared available which was accepted by National Grid as part of the contractual agreement.
- 2 Alcan Static Low Frequency tripping service became unavailable following the closure of the plant in December 2011. As a result, around 400MW of additional BM generation was required to provide dynamic frequency response in the absence of Alcan at a much higher cost for the remaining time of the 2011-13 Balancing Services Incentive Scheme (BSIS).
- 3 In order to derive a cost target for the 2011-13 BSIS scheme, the quantity of static frequency response provision was forecast and fixed within the target-setting models at the start of the scheme including Alcan as one such provider. As such, the final scheme target does not reflect the closure of Alcan meaning that the actual costs incurred are significantly higher than forecast. More specifically, our analysis suggests that between £37.3m and £38.3m of additional cost has been incurred by National Grid as a direct result of the closure of Alcan.
- 4 In order to reduce the overall cost impact of the Alcan closure, National Grid employed alternative strategies including the use of Firm Frequency Response (FFR) and Low Frequency (LF) Spin Gen services. However, in accordance with Special Condition AA5A Part 2(i), paragraph 11 of National Grid Electricity Transmission plc's Transmission Licence, the level of cost incurred in the absence of Alcan is considered to be an Income Adjustment Event (IAE) as the level of cost exceeds the £2m IAE threshold and the closure of Alcan was beyond National Grid's control as SO.
- 5 The subsequent level of income adjustment if the closure of Alcan were to be determined by Ofgem to be an IAE would be a £9.3m to £9.6m income to National Grid following the application of the scheme 25% sharing factor.

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1. Background

- 6 National Grid entered into a contract with Alcan Ltd to provide commercial ancillary services as part of National Grid's obligation to secure and efficiently manage the National Electricity Transmission System (NETS). The service contracted was a Static Low Frequency tripping service available as either an Automatic Static Response or Manual Static Response. The Automatic Static Response was categorised as Frequency Response and the Manual Static Response was categorised as Fast Reserve in the terms of the payment for these commercial services. Alcan provided the equivalent of 400MW of conventional plant for this Static Low Frequency tripping service.

Frequency Response or Response

- 7 National Grid must maintain the continuously changing system frequency within statutory limits, as defined in the National Electricity Transmission System Security and Quality of Supply Standards¹ (NETSSQSS). To assist with this, National Grid procures frequency response which can be categorised as either dynamic response or non-dynamic response. Dynamic frequency response is a continuously provided service used to manage the normal second by second changes on the system, whilst non-dynamic (static) frequency response is usually a discrete service triggered at a defined frequency deviation.

Fast Reserve

- 8 Fast Reserve provides the rapid and reliable delivery of active power through an increased output from generation or a reduction in consumption from demand sources, following receipt of an electronic despatch instruction from National Grid. Fast Reserve is used, in addition to other energy balancing services, to control frequency changes that might arise from sudden, and sometimes unpredictable, changes in generation or demand. Fast Reserve may be used to assist the recovery of system frequency by taking over from frequency responsive plant, once despatched, and thereby restoring primary and secondary response capability. This reduces the period of risk during which the system will have insufficient response to maintain the frequency within statutory limits following a generation loss.

Benefits of the Alcan service

- 9 Alcan provided the equivalent of 400MW of BM generation in the delivery of this Static Low Frequency tripping service. This service was used if the system frequency fell to 49.7Hz. The relatively cheaper nature of this contracted service enabled National Grid to deliver cost savings in managing situations of low frequency and deliver value to consumers. Alcan Static Frequency Response became unavailable after the closure of the plant in December 2011 which was unforeseen by National Grid at the time the incentive scheme was agreed with Ofgem.
- 10 The flexibility of the Alcan pot services available in either Automatic, Manual or Bundled service as well as their respective payment arrangements also offered a unique advantage in choice and operational efficiency. Alcan also provided National Grid with the option of extending the agreed maximum response period following an instruction received to deliver such extension and pay the respective secondary response fees accordingly.

¹ <http://www.nationalgrid.com/uk/Electricity/Codes/gbsqsscode/>

2. Provision within the BSIS Target

- 11 The model used to set the Balancing Services Incentive Scheme (BSIS) target for the 2011-13 scheme contained a variable to reflect the level of contracted static services that were expected to be available for the scheme. This was appropriate because it meant that existing contracted services were provided for within the cost target baseline ahead of scheme commencement. This baseline included the contracted services from Alcan. At the time the 2011-13 scheme was agreed with Ofgem, Alcan was forecast to continue to provide services to National Grid. However, in December 2011 Alcan Ltd closed its plant and thus could no longer provide a service to National Grid.
- 12 In this instance, the Alcan closure was unexpected and therefore not accounted for in the initial BSIS 2011-13 scheme dataset. As ownership of Alcan is in the hands of an external entity, its availability is outside of the control of National Grid. The loss of such a service provider is also inherently unpredictable.

3. Financial impacts of Alcan Closure

- 13 The closure of Alcan and subsequent replacement costs incurred form part of Response and Fast Reserve costs. These costs are part of energy costs that constitute the Incentivised Balancing Costs in the Balancing Services Incentive Scheme (BSIS) 2011-2013. Under these incentive arrangements, NGET's BSIS target varies according to model inputs for factors outside the direct control of National Grid. No provision was made within the BSIS 2011-13 incentive arrangements for the closure of Alcan as this was unforeseen at the time the incentive was agreed with Ofgem. In fact, Alcan was provided for within the models for the scheme to ensure that National Grid was incentivised to procure new services and not just to benefit from services that were contracted prior to the commencement of the scheme.
- 14 The loss of the Alcan service in December 2011 has therefore impacted upon the outturn incentivised balancing costs (IBC) incurred as this situation occurred during the first year (within 9 months) of the start of the incentive scheme in April 2011.
- 15 Using the Cost Sensitivity Analysis and the Backcasting approaches described in the Appendices of this document, we calculate that the financial impact of the closure of Alcan is an additional cost of between £37.3m and £38.3m for the scheme over the period January 2012 to March 2013.
- 16 Therefore due to the analysis of the actual costs incurred we consider that the incentive scheme target should be increased by £38.3m. This in turn means the resultant income adjustment should this IAE be approved, is calculated as being £9.6m.

4. Actions taken to mitigate impact of Alcan loss

- 17 The relatively low cost nature of Alcan Static Frequency Response service compared to provision of this response and reserve in the Balancing Mechanism enabled National Grid to reduce the cost of other services that would have been contracted to provide response services in situations of low frequency. However, the loss of Alcan required cost efficient alternatives to be used to offset some of the cost impact of the closure and optimise our portfolio position for the remainder of the 2011-13 BSIS scheme.
- 18 One measure was to use [text deleted]. As at December 2011 the [text deleted]. If usage of this service was extended for most of the 15hr daytime period, there were potential cost benefits against normal mandatory Frequency Response market of ~ £10-14m a year. LF pump deload may also be available for overnight periods.
- 19 Another measure was the use of large contracted STOR units (like [text deleted]) which have proven very successful in limiting additional margin actions as they are big units that can be held as STOR surplus, scheduled and run for short periods.

- 20 There was also the option of contract optimisation through [text deleted], all of which assisted in offsetting some of the subsequent costs incurred following the loss of Alcan.
- 21 After making use of all the best possible alternatives above and others that became feasible following the closure of Alcan in December 2011 to offset some of the replacement costs, there is a clear indication that annual costs for Response and Fast Reserve during the period from January 2012 to March 2013 increased. The closure of Alcan had a significant impact on the cost for these services due to the use of replacement cost services.

5. Reasons why this is an Income Adjustment Event

- 22 Given that National Grid has no control over the availability or closure of Alcan, nor any provision for managing this within our incentive target, this is proposed to be an IAE with respect to the 2011-13 BSIS scheme.
- 23 A similar and comparable event occurred in 2009 where uncertainty surrounding the closure of another balancing services provider (Anglesey Aluminium) was recognised by Ofgem to potentially impact the costs of system operation prior to the start of the incentive scheme and hence deemed a 'material event' for the purposes of the BSIS scheme at the time.
- 24 The costs incurred as a result of the loss of Alcan exceed the £2m trigger threshold requirement for an IAE.

Appendix 1: Historic Data

[Appendix information deleted]

Appendix 2: Calculation of cost impact

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