

System Operators, Transmission
System Owners, Generators,
Suppliers, Customers and Other
Interested Parties

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Our Ref:
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Dear Colleague

Date: 17 July 2008

National Grid Electricity Transmission System Operator Incentive Scheme 2008/09, Transmission Losses: Revised Volume Targets

National Grid Electricity Transmission (NGET) is the System Operator (SO) for the electricity transmission system. NGET is incentivised in a number of areas of its SO role, including minimising the volume of transmission losses. At the time of consulting on our final proposals for the 2008/09 SO incentive scheme¹, NGET informed us that the level of transmission losses was increasing but could not explain why. We therefore:

- asked NGET² to carry out an investigation into the causes of the recent increase by the end of June 2008;
- based the transmission loss volume target for the incentive scheme on quarterly forecasts with a deadband and noted that we would adjust this target in the light of the findings from NGET's investigation;
- increased the transmission loss reference price³ in the incentive scheme in line with forward price rises at the time and adjusted this upward to reflect the shadow price of carbon.

We received NGET's report on 30 June 2008 and have summarised the details below⁴. We propose to amend NGET's losses volume target for its 2008/09 incentive by amending the forecasts for quarters 2, 3 and 4 based on the information provided in its report.

Provided that NGET consents to our revised volume target, and subject to any representations made during this consultation and any direction received from the Secretary of State, this will be implemented retrospectively from 1 July 2008.

¹ National Grid Electricity and National Grid Gas System Operator incentives from 1 April 2008: Final Proposals Consultation, Ofgem, 27 February 2008.

² We used our powers under standard licence condition B4 of NGET's transmission licence to require NGET to provide a report in this respect. Failure to provide information under standard licence condition B4 would amount to a licence breach, which is enforceable under the Electricity Act 1989.

³ The volume of transmission losses is multiplied by a reference price to determine the loss/gain to NGET depending on whether they exceed/beat their volume target. The reference price for the 2008/09 SO incentive scheme is £62/MWh.

⁴ A copy of the report is available on the NGET website: <http://www.nationalgrid.com/NR/rdonlyres/4D65944B-DE42-4FF4-88DF-BC6A81EFA09B/26920/ElectricityTransmissionLossesReport1.pdf>

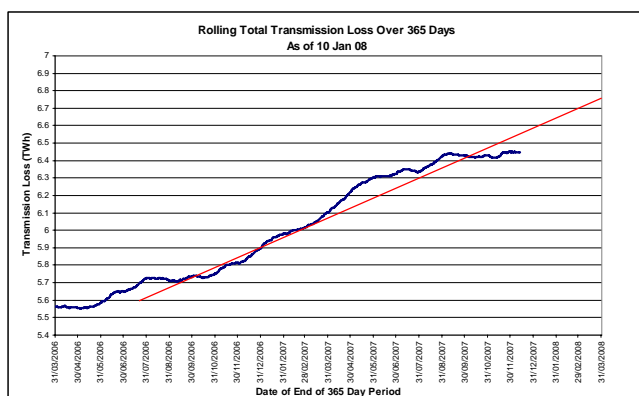
Development of a revised transmission losses volume target

Current target

In February, NGET provided us with the following quarterly forecast for 2008/09. We used these volumes to set the target for the 2008/09 incentive, which has a deadband between 6600 and 7200GWh. This forecast is also illustrated in the figure below.

	Q1	Q2	Q3	Q4	Total 2008/09
5 February (GWh)	1610	1500	1840	1950	6900

NGET's transmission losses forecast as at 10 January 2008 based on a linear model.

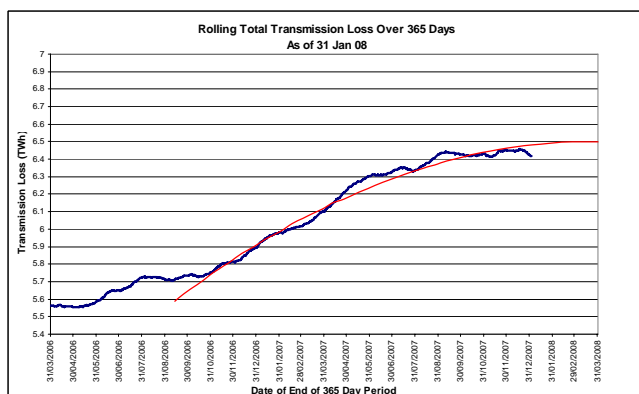


NGET's report findings

When investigating the increase in transmission losses NGET considered three issues:

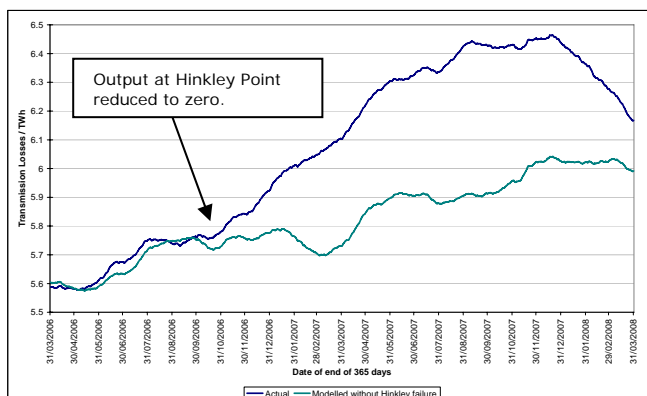
1. NGET examined metering error as a possible cause for the increase in transmission losses. NGET validated its own operational metering data with settlement data from Elexon and while a few minor errors were identified, this did not explain the observed increase.
2. NGET also looked into the tool used to forecast and model transmission losses. In this case NGET found that while the tool had historically been robust, a new model based on quadratic rather than linear modelling of zonal generation and demand transfers was more accurate in predicting current trends. Improvements to the forecast of losses resulting from the new model are illustrated in the figure below.

NGET's transmission losses forecast based on the revised quadratic model.



3. Generation and demand transfers were examined under the new model and it was found that changes to intra zone generation and demand had a bigger impact on losses than was previously thought. The increases in losses seen in 2007/08 were the result of changes to generation and demand patterns, with the primary driver being variations in the dispatch of generation output. The most significant increases were found to be largely a result of a reduction in output at Hinkley Point B Power Station. Available capacity at Hinkley Point B (a nuclear station in Somerset, South West England) fell from around 1200MW to 0MW between 22 September 2006 and 31 May 2007. The output of the station has been reduced by some 300MW since its return on 1 June 2007. The relationship between Hinkley Point B's generation pattern and the level of transmission losses is illustrated in the figure below.

NGET's forecast of transmission losses based on the revised model, with and without the effect of Hinkley Point B Outages



Based on the above findings, NGET has revised its forecast for transmission losses to 5900GWh for 2008/09⁵. Subsequent to the report, NGET also provided Ofgem with a quarterly breakdown of the annual forecast.

	Q1	Q2	Q3	Q4	Total 2008/09
2 July (GWh)	1290	1330	1640	1640	5900

Our view on NGET's findings

We are pleased to see that NGET's investigation has identified a number of factors which have driven the recent trends in transmission losses. Based on the information provided we consider it appropriate to amend the target for the remainder of the year based on NGET's revised forecast; such that NGET remains incentivised to reduce transmission losses. We note that failure to amend the target for transmission losses could result in NGET benefiting from a windfall gain of up to £11m if transmission losses outturn at the latest forecast level. Given this level of materiality we propose to scale down the target so as not to compromise the effectiveness of the incentive scheme.

Our revised final proposal

We accept NGET's revised target of 5900GWh. However, given that we have now completed Q1 we do not propose to amend the volume for this quarter, instead we propose to subsume the total decrease in the target of 1000GWh by scaling down the remaining quarters on a pro rated basis. We therefore propose the following quarterly volume⁶.

⁵ This will be a lower level than the 2006/07 actual of 6102GWh, and the 2007/08 actual of 6200GWh.

⁶ The reference price of £62/TWh and a sharing factor of 25% will continue to apply.

	Q1	Q2	Q3	Q4	Total 2008/09
Final Proposal (GWh)	1610	1240	1525	1525	5900

Way forward

The Appendix to this letter contains a statutory notice of our proposal to modify by agreement NGET's electricity transmission licence under section 11 of the Electricity Act 1989. This statutory notice proposes to implement the proposal set out in this document (subject to responses to this consultation).

We would welcome the views of interested parties in respect of the proposal set out in this letter. Responses should be sent to GB.markets@ofgem.gov.uk to be received no later than 14 August 2008 marked for the attention of:

Andrew Wright
Managing Director, GB Markets
Ofgem
9 Millbank
London SW1P 3GE

The statutory notice under section 11 of the Electricity Act 1989 specifies a period of not less than 28 days for interested parties to make representations or objections and during which the Secretary of State may direct the Authority not to make the proposed modification. The Authority may make such revisions to the proposed licence modification as it considers appropriate in response to such representations, objections or directions and carry out a further statutory consultation.

NGET must consent to the proposed licence modification before it can be implemented. Subject to any representations made during consultation, direction received from the Secretary of State and NGET's consent, Ofgem intends to direct the modification to NGET's transmission licence shortly after 14 August 2008, to apply retrospectively from 1 July 2008.

Should you wish to discuss any aspects of this letter, please contact Kirsten Hall on 020 7901 7362 or by email kirsten.hall@ofgem.gov.uk.

Yours sincerely



Andrew Wright
Managing Director, Markets