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**Transmission System Operator Incentives for 1 April 2010  
Consultation Document 1/09 Consultation on the Development of  
Incentives for Reactive Power, Transmission Losses and Black Start**

Dear Malcolm

Thank you for the opportunity to comment on the Transmission System Operator Incentives for 1 April 2010 Consultation Document 1/09 on the development of Incentives for Reactive Power, Transmission Losses and Black Start. This response is provided on behalf of the RWE group of companies, including RWE Npower plc, RWE Supply and Trading GmbH and RWE Innogy.

On a general point, we continue to believe that there should be greater emphasis on the specific performance-based incentives related to costs that are directly controllable by National Grid. Consequently where costs are driven by external factors then these should be specifically excluded from the incentive arrangements. This would help to address the issues associated with windfall gains and losses. Finally we remain concerned that long term incentive schemes have the potential to create significant uncertainty as to the overall efficiency of incentive schemes

Furthermore we note that there is limited information on the details of the expected costs to be incurred particularly since commercial confidentiality prevents the publication of certain key elements of costs. We support greater disclosure of information on how National Grid has taken specific actions that have delivered costs savings is required to assess the performance of the system operator. We believe that such information could give rise to an incentive scheme that is directly related to the efficiency enhancements delivered by National Grid.

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Our comments on the specific questions raised in the consultation document are included in the attachment to this letter.

If you wish to discuss any aspect of our response, please do not hesitate to contact me.

Yours sincerely

By email

Bill Reed,  
Market Development Manager  
RWE Supply & Trading GmbH

Attachment 1: Response to the specific Consultation Questions

## **Attachment 1: Response to the specific Consultation Questions**

### ***1 What benefits do you see for the development of an indexation methodology for reactive power costs? What drivers should be included in such an index?***

As noted in the consultation document (Page 6) the main drivers for reactive power costs are: Power price, RPI, Level of active power flows across the transmission system, Reactive Demand, Commercial Reactive Power contracts and Reactive power dispatch. Of these drivers the main elements that can be influenced by the system operator are the relevant contracts and the power dispatch (through either the balancing mechanism or forward power contracts). These “controllable” drivers should be subject to appropriate incentives.

It would seem appropriate for those elements that are outside the direct control of National Grid to be passed through perhaps through some form of indexation associated with price, or perhaps based on the actual costs incurred. It should be noted that flows on the transmission system depend on the patterns of generation and demand. The availability of the transmission system is an important factor in this but should be subject to separate transmission ownership incentives.

For those costs that National Grid can influence, any incentive arrangements should enable the economic and efficiency benefits of National Grid actions to be identified. On this basis an incentive scheme could be designed to ensure that actions taken by National Grid to manage reactive power costs deliver specific benefits. In addition, there could be sharing of cost savings where these are actually achieved. Such a scheme would require detailed assessment of the cost components that National Grid can influence and a process that enables the benefits (or costs) of National Grid actions to be properly assessed.

### ***2 What benefits do you believe there are in the implementation of a longer than one year scheme?***

The principal benefit of a longer term incentive scheme is the fact that the requirement for the annual review and reassessment of the scheme components is no longer required. Once the parameters associated with the scheme are set and known then it is simply the case of administering the ongoing scheme. However, the scheme should only apply to those elements of cost that are influenced by National Grid. Other scheme components such as power price indexation could be reset periodically, perhaps even within year. This could set the benchmark for costs that National Grid would have to beat in order to earn incentive scheme rewards.

### ***3 Are there any additional benefits or drawbacks in the development and implementation of an unbundled reactive power incentive?***

The key issue for the unbundled electricity incentive scheme is the extent to which the actions taken in one scheme area influence or dictate the costs in other areas. For example dispatch for reactive power may help to reduce constraint costs or help to resolve system imbalance or reduce the need for investment in reactive transmission infrastructure. When considering an unbundled scheme it is the ability to distinguish the benefits of actions that may have multiple consequences across the scheme that is of key importance.

**4 Please provide your views on the development of the reactive power incentive? Do you see any benefits in changing the current arrangements?**

While we can see merits in developing incentives on reactive power for those cost components that are influenced by National Grid, we remain to be convinced that a specific reactive power incentive can be successfully disaggregated from the benefits that accrue in the wider incentive scheme. As noted above there is an interaction between reactive power dispatch, constraint costs, balancing costs and investment decisions.

We believe that greater information on the interaction of the cost components is required prior to the introduction of a specific reactive power incentive. We are particularly concerned that National Grid may influence reactive power costs by actions taken in other areas of the incentive scheme. For example constraint related dispatch may make available power stations that can deliver reactive power capability at lower cost than if the power station had not been dispatched for constraint related purposes. It is the understanding of these interactions that is important in considering the scheme. We believe that further work is required in order to assess fully whether reactive power can exist as a standalone element of costs.

**5 What benefits do you see for the development of an indexation methodology for transmission losses? What drivers should be included in such an index?**

An indexation methodology essentially enables those elements of costs that are subject to external drivers to be passed through to customers. On this basis the key issue is whether the calculation of an ex ante index fully reflects the relevant costs when considered ex post. For example does some form of ex ante electricity price index properly reflect the actual outturn electricity price? The degree of inaccuracy reflects the general inefficiency of the ex ante index.

There are two ways that the inaccuracy of an indexation approach can be addressed. These are increasing temporal resolution of the index or some form of ex post assessment or reconciliation. Both have benefits and drawbacks. Increasing temporal resolution from say year ahead to month ahead or week ahead or even day ahead will reduce the uncertainty of cost outcomes but potentially increase the volatility of these costs. Ex post reconciliation increases the risk of further adjustments to cost outturns that reflect actual events, though this could be mitigated by caps or collars to these adjustments.

Indexation may serve to reduce risk in cost accuracy but the trade off is also the potential for increased windfalls gains or losses under the scheme. We remain to be convinced that indexation alone will improve the implementation of the incentive scheme, particularly for those costs that are outside the control of National Grid. However, an index approach may provide an important benchmark for cost outcomes against which the specific actions taken by National Grid to address costs can be assessed and the incentive scheme rewards or costs calculated.

**6 Please provide your views on whether the SO can influence sufficient drivers to reduce Transmission Losses?**

The current electricity market is based on self dispatch of power stations to meet contractual positions. Consequently flows on the transmission system depend on the patterns of generation and demand delivered by the market and the availability or otherwise of key transmission

assets. As a result, we believe that the system operator has limited influence on total losses on the transmission system.

Currently transmission losses are allocated under the balancing and settlement code on a non locational basis. This give rise to the potential that the pattern of generation and dispatch are inefficient in relation to losses since there is no locational signal. A BSC modification (P229) is attempting to address this through the zonal allocation of transmission losses to generation and consumption. If the marginal costs of transmission losses are appropriately reflected on users then it would be expected that an optimised dispatch pattern would result with respect to losses.

We believe that it is essential that in deriving the marginal cost of electricity at different locations that the costs are appropriately reflected on users of the transmission system.

***7 What benefits do you believe there are in the implementation of a longer than one year scheme?***

We believe that the benefits of a longer term transmission losses incentive are limited. In particular we note that the electricity market is based on self dispatch of generation. Therefore the patterns of generation and resultant losses are influenced by their marginal costs. This results in patterns of generation that can differ greatly between years and even within years as, for example, coal or gas fired generation is either in merit or out of merit. These fluctuations in dispatch patterns are largely outside the control of National Grid, particularly under the current BSC rules where transmission losses are allocated on a uniform postage stamp basis.

***8 Are there any additional benefits or drawbacks in the development and implementation of an unbundled transmission losses incentive?***

We believe that since the System Operator has limited scope to influence transmission losses the development of an unbundled transmission loss incentive is largely irrelevant. Nevertheless it may be appropriate to introduce incentives on transmission owners to reduce losses through for example, innovation or the introduction of low loss equipment. However, this is subject to the transmission owner price controls.

We believe that it may be appropriate to incentivise National Grid to develop measures that will enhance the ability of users to manage losses. This could be achieved through the allocation of losses to users that reflect the costs associated with particular dispatch decisions.

***9a Please provide your views on the development of the transmission losses incentive? Do you see any benefits in changing the current arrangements?***

We do not support change to the current arrangements. Incentives should be limited to those elements of losses that are directly influenced by National Grid through for example, dispatch in the balancing mechanism. In addition, the incentive should only be applied to actions that are taken to affect losses directly and where such effects can be disaggregated from other actions.

***9b Are there any benefits in the development of a TO incentive to manage fixed losses?***

As noted under our answer to question 8 we do believe that there are merits associated with the development of a TO incentive to manage fixed losses.

***10 What benefit do you see in developing a transmission losses zonal forecast incentive?***

Given that transmission losses are currently allocated uniformly we do not believe that there is a case for the development of a transmission losses zonal forecast incentive. We note that if modification proposal P229 were to be approved then the estimates of the locational impact of losses will be available through the proposed methodology which is based on the application of transmission losses factors derived from the patterns of generation and demand in the year preceding the application of the loss factors.

A transmission losses zonal forecast would only be appropriate if losses were to be allocated on a marginal ex post basis.

***11 What benefit do you see in the development of a Transmission Losses procurement incentive similar to the Gas Shrinkage incentive?***

We do not believe that there are any benefits from the development of a transmission loss procurement incentive under the current market design based on self dispatch.

However, if National Grid was responsible for the procurement of losses we would expect that it would also be responsible for generation dispatch probably under some form of pooling arrangements. In these circumstances an incentive arrangement could be developed alongside the cost reflective locational charging arrangements for generation and demand associated with the procurement of losses.

***12 Do you agree that National Grid should be incentivised on the procurement of black start services for 2010/11 and 2011/12 as under the current scheme framework?***

We do not believe that there is a case to change the current black start incentive arrangements and would support the retention of the current scheme framework.

***13 Do you believe that the black start scheme should be extended to a 2 year target?***

Since the black start contracts tend to be long term in nature we do not believe that there are any issues with setting a 2-year target.

***14 How do you believe black start services are best procured post 2012?***

We believe that black start services should be procured under a competitive market arrangements with the system operator offering long term (greater than 2-year) contracts for the provision of such services.

***15 Did you find the level of information within this consultation informative? What additional information should National Grid provide to explain better?***

We are satisfied with the level of information.

***16 Do you have any further comments on any aspect of this consultation in relation to the Electricity SO?***

We have no further comments.