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Promoting choice and  
value for all customers

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Dear Vincent

Last week, I agreed to provide you with a short note which: provided a description of the four models of transmission access, set out National Grid's preliminary analysis of the impact of the different models on future transmission charges, and provided an account of the recent CUSC Panel meetings that prevented the fourth option being put forward for consideration.

#### **The four alternative models of transmission access and National grid's analysis**

Three of the models were initially proposed by National Grid and developed through the industry governance process and are before the Authority for a decision. The "fourth model" came out of discussions between Ofgem, NG and various industry players and was an attempt to deal with concerns that had been expressed about elements of the other three. It is designed to take the best from the other three and offer an acceptable compromise between the interests of customers, existing generators and newly connecting generators. The CUSC Panel prevented NG getting the model "on the table"

**Model 1 – the Evolutionary Approach:** The existing allocation of rights would continue into the future. New generators would either have to join the queue and wait several years, trade with existing generators to secure rights and/or rely on NG releasing short term or interruptible rights when NG identify spare capacity on the grid. New conventional and renewable generators are concerned about this model for obvious reasons.

**Model 2 – Connect and Manage:** Under this model, all generators (new and existing) would be given as many access rights as they require when they require them irrespective of the physical capacity of the grid. This would initially (until investment could catch up) lead to higher constraint costs which would have to be recovered from generators, suppliers and customers.

There are two variants. The first "socialises" constraint costs amongst all users and leads to customers bearing a substantial proportion of the increased expenditure. The second variant targets the constraint costs on the new generators.

Both variants appear problematic. We struggle to see how the benefits (in terms of lower wholesale prices and carbon emissions) would be sufficient to justify the additional costs to customers. NG has suggested additional constraint costs borne directly by customers could be at least £120m p.a. for the next five years (until system capacity expands given ongoing planning delays on approved Scottish transmission expansion).

Generators will face a further £120m p.a. of costs - a significant proportion of these costs will also end up on customer's bills.

The alternative proposal may be illegal under the EU Directive due to the differential treatment of new and existing generators. But even if this isn't the case, it would make the economics of new generation - and particularly renewable - unviable. NG's initial analysis shows that charges would be high and volatile. In the North of Scotland a wind farm would face access charges of nearly £55/MWh compared with £6/MWh for a thermal plant. These costs will vary year-on-year and would be volatile, depending on the pace of connection.

**Model 3 - Auctions:** A fixed volume of annual access rights (based on the physical capacity of the network) would be auctioned to the highest bidders. This model is opposed by most generators who are concerned about not getting the rights they need and/or overpaying. The model developed by the industry also poses problems for renewable generators who don't want to pay high prices for annual rights given their low load factors.

**The "Fourth Model":** This is a variant of connect and manage. Each year NG invites generators to declare how much capacity they want for the next, say, fifteen years. Generators can indicate the compensation they require if NG has to constraint their access rights and can also bid a load factor - so a renewable generator can declare it only needs the capacity for 30% of the constrained price does not have to be fixed so generators could, for example, ask to be paid the spark (or dark) spread based on published market indices. NG announces (fixed) prices in each zone for each year. These prices are set to recover the asset and forecast constraint costs in each zone for that year. Discounts could be offered to low load factor plant or generators requiring lower constraint payments. Generators can then either maintain their volumes or reduce them. If volumes change, NG recalculates prices until no generator wants to change the volume of rights it seeks in any zone or any year.

The potential advantages of this model are clear. It provides all generators with volume certainty - they are guaranteed access to the system for their full output at all times with no waiting. They don't have to purchase long term rights to achieve this. They can still generate by either purchasing short term rights (from NG or other generators) or "overrunning" - generating without rights (an overrun price will be set to reflect the short term costs to NG). The choice all generators face is how much price risk they want to take on access. They can either remove all price risk by securing long, term fixed price rights for a number of years. Or they can expose themselves to some price risk by not securing all of their requirements at fixed prices. For example an existing generator with a 2GW capacity could either purchase 1GW of fixed price rights for 15 years or 2GW of fixed prices for 4 years.

By requiring generators to provide load factors and to fix their compensation, this should reduce the level of constraint costs and reduce the total costs of access relative to other models. And this, together with requiring generators to cover the forecast level of constraints reduces the costs (and risks) to customers while the system is constrained before new capacity comes on line.

NG do all of the hard work. NG, rather than the generators, would calculate the prices at which it would offer capacity. To allow generators to manage the price risk, transparency would be vital with NG publishing its models, approach and forecasts of future prices under different scenarios of new build and closure so generators could assess them in making their choices.

## Voting at recent CUSC Panel Meetings

National Grid raised the "Fourth Model" as CAP171 at the CUSC Panel meeting of 30 March 2009. The CUSC Panel prevented the "fourth model" from being developed further on the grounds that it had *substantively the same effect as the auctions proposal*. Following this meeting, National Grid raised the fourth model again (as CAP172), providing further information on the way the "fourth model" differed from the auctions proposal. The CUSC Panel again voted to prevent the amendment from being developed and considered. The model cannot currently be developed or sent to Ofgem to consider and assess along with the other three models.

The table below summarises the way in which CUSC Panel members voted.

Panel Member	Employed By*	Voted for the model to be considered	Voted against the model being considered	Abstained
Hedd Roberts	National Grid	✓		
Garth Graham	SSE		✓	
Simon Lord	First Hydro			✓
Tony Diccico	RWEnpower	✓		
Bob Brown	Cornwall Energy - Independent	✓		
Barbara Vest	AEP		✓	
Paul Jones	e.on		✓	
Paul Mott	Edf		✓	
<b>Summary of Voting</b>		<b>3</b>	<b>4</b>	<b>1</b>
Note: CUSC Panel members are required to act independently of their company interests.				

Yours sincerely



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**CHIEF EXECUTIVE**