

National Grid Electricity Transmission System Operator Incentive Performance

Background

National Grid Electricity Transmission has been subject to financial incentives, as System Operator, since 1994. Following NETA Go-Live in March 2001, this arrangement has been articulated within the Transmission Licence as the Balancing Services Incentive Scheme (BSIS). The costs concerned are those of operating the Balancing Mechanism, all Balancing Services contracts, an adjustment to compensate for the net length or imbalance of the system, and a notional cost of transmission losses.

National Grid Electricity Transmission's existing System Operator incentive scheme applies to our role as GB System Operator. In our role as System Operator we are responsible for the efficient, economic and co-ordinated operation of the GB transmission system, in particular:

- Ensuring that the electricity transmission system is kept in energy balance minute by minute
- Planning and operating the transmission system in order to optimise the available transmission capacity in line with statutory security and reliability requirements

Both of these activity areas require the procurement of balancing services. The costs of these services are currently handled under the Balancing Services Incentive Scheme.

We have consistently managed these costs to the positive benefit of end consumers.

Parameters of the scheme

The parameters of the scheme were as follows:

Parameter	2001/02 scheme	2002/03 scheme	2003/04 scheme	2004/05 scheme	2005/06 scheme
Target	£484.6 million	£460million	£416 million	£415 million	£377.5 million
Upside sharing factor	40%	60%	50%	40%	40%
Downside sharing factor	12%	50%	50%	40%	20%
Cap	£46.3million	£60 million	£40 million	£40 million	£40 million
Floor	-£15.4 million	-£45 million	-£40 million	-£40 million	-£20 million

Historical performance

The following table highlights National Grid Electricity Transmission's performance under each incentive scheme based on money of the day.

Parameter	2001/2002 scheme (£m)	2002/2003 Scheme (£m)	2003/2004 scheme (£m)	2004/2005 scheme (£m)
Target IBC	484.6 to 514.4	460.0	416.0	415.0
Outturn IBC	365.6	379.0	351.5	384.1
Cost difference (overrun) vs. target	119.0	81.0	64.5	30.9
National Grid's incentive payment	46.3	48.6	32.2	7.7

- **Performance to date**

2001/2002

During the period 2001/2002 the total incentivised balancing cost out turned at £119 million lower than the target.

In the first year under NETA, National Grid Electricity Transmission deployed a wide range of methods and processes to optimise balancing costs. The principal reasons for the out performance can be attributed the employment of a number of operational and commercial strategies to deliver savings in the operation of the system. In particular, the following:

- In relation to Fast Reserve and Frequency Response: To encourage new providers and increased competition, a tender process was put in place from October 2001 for the procurement of Fast Reserve. We introduced a new demand-side response service to increase our procurement options and maximise economic and efficient procurement of Frequency Response.
- To maximise the availability of transmission capacity, we developed and employed innovative circuit thermal rating monitoring, on certain cables and overhead lines, to help minimise constraint costs.
- In addition, we also continued to develop and employ revised operational strategies in relation to our switching arrangements and operation of the system to optimise flows on the Transmission System and minimise constraint costs.
- Go-Live saw the establishment of an entirely new trading activity within the company. This enhanced our suite of balancing tools and opportunities for efficiency. In particular forward trading allowed National Grid to purchase and sell energy at more advantageous prices than the BM.

2002/2003

During the period 2002/2003 the total incentivised balancing cost out turned at £81 million lower than the target. The principal reasons for the out performance can be attributed to the following:

- The use of a number of innovative constraint contracts and strategies to help minimise constraint management costs.
- Development of new contracts and expansion of service provider base, including demand-side, to increase competition for provision of services – particularly in Frequency Response and Standing Reserve.
- Additional system re-inforcements delivered through TS-capex.
- Enhanced forward trading performance as a result of developments to our forward trading strategy.

2003/2004

During the period 2003/2004 the total incentivised balancing cost out turned at £64.5 million lower than the target. The principal reasons for the out performance can be attributed to the following:

- The continued re-optimisation of balancing services use to minimise cost and optimise dispatch across all balancing services
- Development of new analysis and strategies to continue to deliver optimal holdings in relation to the use and dispatch of Response in line with system requirements
- Continued development of our analytical techniques to ensure optimal calculation and dispatch of Operating Reserve requirements.
- Continued development of trading and contracting strategies led to savings both for Energy and constraint reasons.

2004/2005

During the period 2004/2005 the total incentivised balancing cost out turned at £30.9 million lower than the target. The principal reasons for the out performance can be attributed to the following:

- Further refinement of calculation and dispatch of Operating Reserve Requirements.
- Success in attracting new balancing services provision for Ancillary services such as Fast Reserve and Standing Reserve.
- System re-switches, enhanced ratings, outage management and contracting strategies to minimise constraint costs.