Promoting choice and value
for all gas and electricity customers

SO Incentives from 2013: Electricity SO incentives

Ofgem stakeholder workshop,
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Overview

- The wider context and the role of the SO

- Proposals for electricity output incentives:
  - Transmission losses
  - Renewable generation
  - Network availability policy

- Proposals for cost incentives
  - Black start
  - Balancing
    - Performance of the electricity SO against the cost incentive schemes
    - Proposals for electricity cost incentives
    - Uncertainty mechanisms and risk premium

Agenda

Context

SO output incentives

SO cost incentives

The wider context and the role of the SO

- Challenges and opportunities:
  - Decarbonisation of energy supply
  - Increased interconnection and policies that increase European integration
  - Security of supply in the face of decarbonisation
  - EMR may give the SO new responsibilities
- SO incentives aim to focus the SO on:
  - delivery of outputs (output incentives)
  - long term value for money (cost incentives)
  - work with the TOs to reduce system operation costs

Agenda

Context

SO output incentives

SO cost incentives

SO output incentives: categories

NGET is expected to deliver under seven output categories

Balanced system
Demand meets supply recognising network conditions. Frequency is maintained

Connections
Timely completion of applications in accordance with connections process

Stakeholders satisfied
Satisfaction of stakeholders: generators, those seeking connection, large users, suppliers, other TSOs and aggregators

Provision of information
Provide timely information on key issues relevant to market

Safety
Compliance with health and safety standards and voltage is maintained at +/- 5% for 400kV, +/-10% for 275kV and 132kV

Environmental impact
Impact of operation on the environment and contribution to broader environmental targets

Reliability and availability
Ensuring that the network is available and is developed in a safe, co-ordinated and sustainable manner

SO output incentives: proposals

Output	Proposal
Workplace safety & system voltage	Covered by HSE
Broad environmental target	Incorporate into Environmental discretionary reward
Transmission losses (Slide 8)	Reputational incentive
Carbon footprint	Covered in RIIO-T1
Management of processes & **TO interactions (Iain Morgan)**	Take forward under RIIO-T1 Network Access Policy
Stakeholder survey	Covered by RIIO-T1 stakeholder survey
Demand meets supply	Monitor output measure
General information provision	Covered by existing legal requirements
Information on renewable generation (Slide 9/10)	Financial incentive
Innovation	SO included in Network Innovation Competition

SO output incentives: Transmission losses

National Grid's proposal

- Broadly similar to the current scheme: [(outturn – target volume) x wholesale reference price] - added to the total incentivised balancing scheme costs, with a 20% sharing factor
- Target based on previous year losses volume + an adjustment derived from ex-post calculation of the loss factor adjusted change in metered generation and demand at each node between current and previous year

Outturn volumes from previous year (t-1) → Transmission loss factors (TLFs) → Outturn pattern of generation and demand → Transmission losses volume target applied to a total incentivised cost target

Our views

- The proposal is complex and difficult for stakeholders to understand
- Given the SO's limited scope for action and changing generation mix, this or any other scheme is unlikely to yield any material results in terms of lower losses

Ofgem proposal:

- Extend the RIIO-T1 reputational incentive on losses to cover the SO
- NGET to publish its strategy for transmission losses and report annually on progress

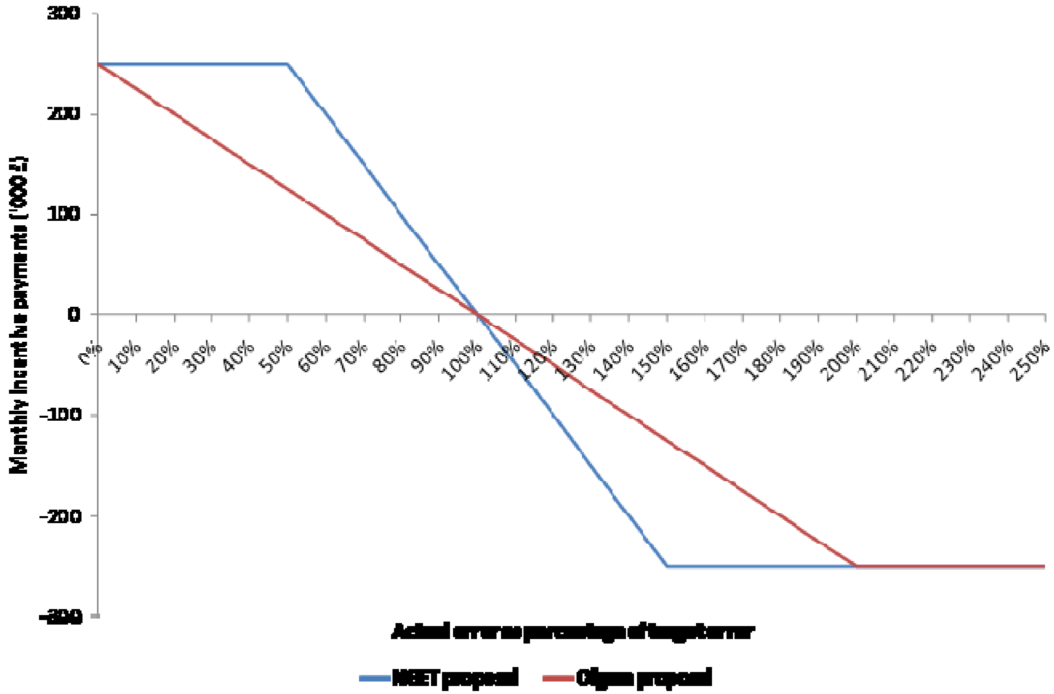
Q1: ...do you agree with the proposal to put in place a reputational incentive and to remove the current financial incentive?

SO output incentives: Information on renewable generation

Scheme design

- SO well-place to forecast renewable generation and good forecasts are likely to become more important
- We propose a **renewables forecasting incentive** to minimise the average error in forecasts each month (+/- £250k per month)
- Monthly cap (£250k) reached if zero error and monthly floor reached if error is 2X target
- New scheme, so set for two years initially

NGET & Ofgem proposals: scheme parameters



Q2a: Do you agree an incentive is appropriate?
Q2b: Which renewable forecast would you like to be incentivised (5am, 5pm, 11am, 11pm)?
Q2e: Do you agree the incentive should be set for two years initially?
Q2d: do you agree with the proposed cap, floor and range of the incentive?

Information on renewable generation

The case for our proposal:

- Accurate forecasting of renewable generation will become increasingly important as the volume of intermittent renewable generation increases
  - Enables stakeholders, if they choose to rely on NGET's forecasts, to balance their positions more accurately
  - Enables NGET to manage the costs of operating reserve more efficiently
- A financial incentive provides the SO with sufficient carrot and stick to drive further improvements as opposed to a non-incentivised mandate

Options for setting the target

	Output index	Targets	Target level	
			2013/14	2014/15
Option 1	MAE	Seasonal	Winter 6.25% Summer 4.75%	Winter 5.5% Summer 4.5%
Option 2	MAE	Annual	5.5%	4.5% [is this right?]
Option 3	RMSE	Seasonal	Winter 9.25% Summer 6.75%	Winter 7.75% Summer 5.75%
Option 4	RMSE	Annual	8.0%	6.75%

(Q2c) Error measure: mean absolute error (MAE) or root mean square error (RMSE)? Latter gives more weight to extreme outcomes .
(Q2c) Monthly target: set on an annual or seasonal basis?

Agenda

- Context
- SO output incentives
- SO cost incentives

BSIS: objectives and performance

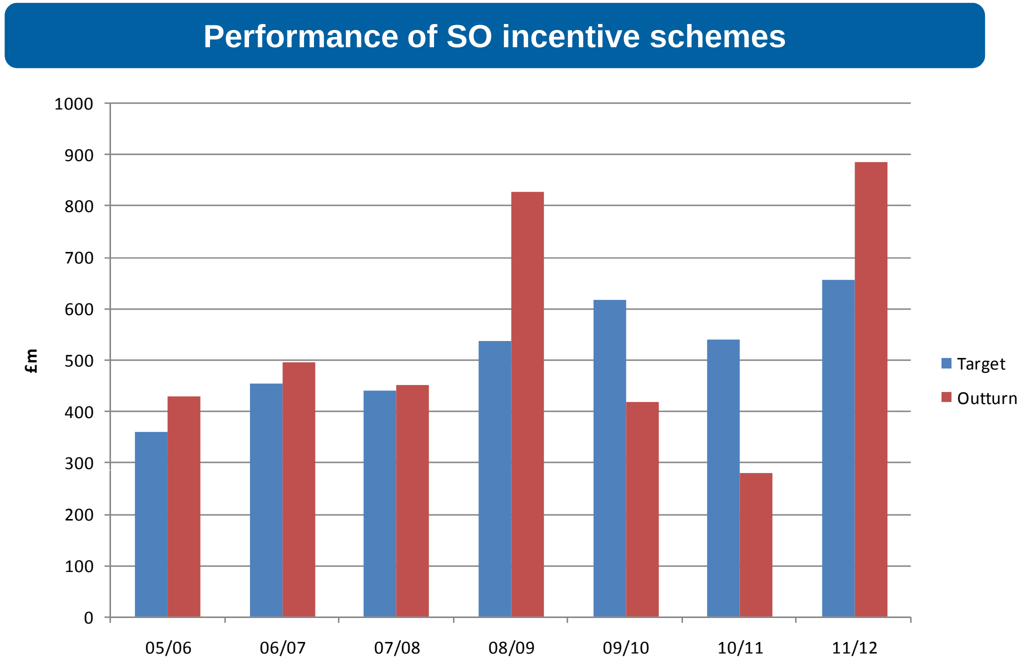
What are we trying to achieve? (RIIO Principles)

- Long term innovative thinking
- Stakeholder engagement
- Ex-ante approach to incentives
- Strong incentives to deliver value for consumers

What do we have at the moment with BSIS?

- Short term 1 year schemes, until last year's attempt to move to long term scheme
- Complex models
    - Do stakeholders feel they are able to engage?
- Consistently wide gap between target and outturn costs
- Retrospective changes to correct modelling errors undermine ex-ante approach

Increasingly difficult to set meaningful ex-ante targets

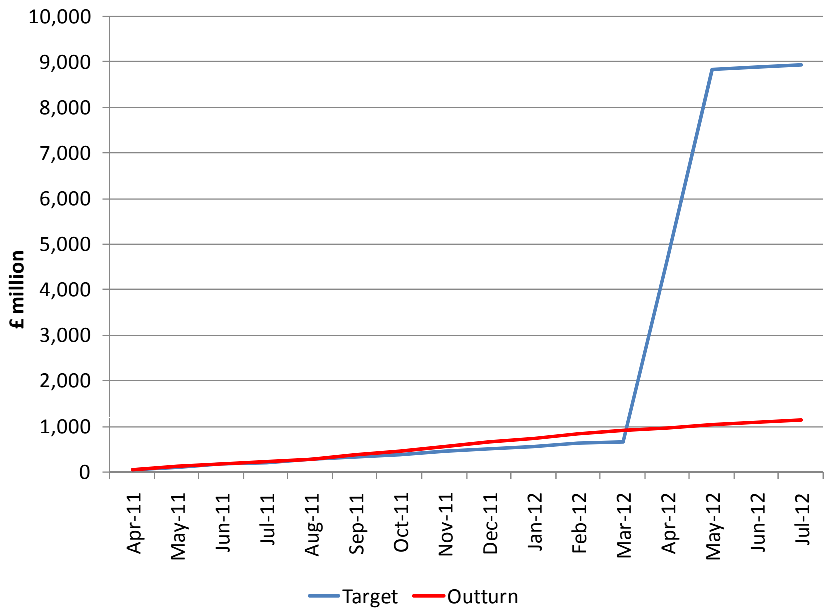


- Since 2008 outturns have become more variable due to significant changes in the market impeding on system operation

- Concerns over the strength of the incentive – to address this issue we carried out a review in April 2010

Performance of the 2011/13 scheme

Target vs. outturn costs, as of 31 July 2012



- Performance of the 2011/13 scheme so far highlights the difficulties of developing a modelling approach that is:
  - robust and appropriately captures the changing structure of the electricity market without the need for continual amendments; and
  - easy to understand and accessible to stakeholders.

Removing the balancing services cost scheme

Ofgem proposal:

- Remove financial incentives on balancing costs based on cost target
- Any future financial incentive would have to be based on models tested rigorously over an extensive period of time (1 year)
- Any future financial incentive would have to meet objectives
- We need to change to achieve our objectives and ensure that regulation is delivering for consumers

Q3: Do you agree that financial incentive on balancing costs should be removed?

Our proposal: a broader approach to balancing service cost incentives

Ofgem proposal:

- Encourage more innovative behaviour and long term thinking recognising the increasing challenges with balancing the system through three new 'mechanisms'

- Increased **scrutiny and monitoring** of balancing costs
  - Use existing monitoring reports and licence conditions

- A new licence condition to **disallow inefficient costs.** Key features include:
  - Clarity on what inefficient costs are
  - Establishing a rigorous and transparent process

- A **discretionary reward** ~say 25% of net benefits subject to a cap of £25m a year paid ex-post for actions that go beyond 'business as usual' and deliver measurable net benefits to consumers. Key features include:
  - Clarity on 'business as usual' (and 'beyond')
  - Establishing a rigorous and transparent process
  - Impact on BSUoS charges

We will consult in more detail on these proposals in October

Disallowing inefficient costs

- Clarity on what inefficient costs are:
  - Identify cost anomalies not justified by market fundamentals
  - Establish benchmarks and triggers where possible:
    - e.g. based on costs in t-1
    - e.g. based on fully ex-post constraints model run
  - In determining whether costs are inefficient, only take into account information available when the costs were incurred (avoid ‘benefit of hindsight’).
  - Not a process for second-guessing individual contracting decisions.

- A carefully designed process to ensure transparency and rigour:
  - Identify anomalous costs
  - Informal evidence and information gathering
  - Seek opinion of standing group (BSUoS payers, customer representatives?)
  - GEMA decision and consultation

Q4: Do you agree with our proposals for a licence condition to enable us to disallow inefficient costs?

Discretionary reward

- Indicative parameters:
  - Reward of up to, say, 25% of net benefits subject to a cap of £25m a year
  - Reward paid ex-post: after net benefits have materialised
- What is 'beyond business as usual'?
  - The initial proposals give examples
  - The SO will be required to make a convincing case, to be reviewed by a panel of experts
- A carefully designed process to ensure rigour and transparency:
  - The SO prepares an ex post report on the initiatives it has taken, setting out the actions it has taken and the net benefits to customers
  - Where significant opex is necessary, it may be desirable for the SO to approach Ofgem before implementing initiatives to see if they are likely to meet the criteria
  - In either case, the ex post report would be reviewed by Ofgem and a panel of experts and a recommendation on a reward would be made to GEMA.
  - Any reward would be funded through BSUoS [over an agreed/consulted time period]

Q5: Please provide your comments on our proposals for a discretionary reward mechanism.

Uncertainty mechanisms and risk premium

Ofgem proposal

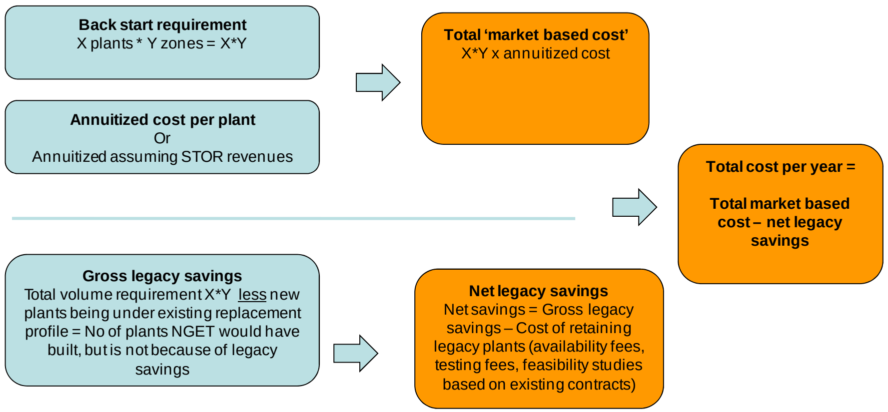
- We will introduce a general uncertainty mechanism to allow the Authority to reopen a scheme or set of schemes if:
  - Expected or unexpected 'events' occur that have a significant impact on the SO role (e.g. EMR)
  - If a scheme or set of schemes become unfit for purpose (e.g. an output may become irrelevant or a scheme may hit its cap or floor and appear likely to continue doing so in future years rendering the incentive for 'right' behaviours ineffective).
- We propose to remove the income adjusting event (IAE) uncertainty mechanism
- The new mechanism will only be triggered by the Authority, however, the SO can apply to the Authority to reopen schemes under this mechanism.
- Any changes as a result of using the mechanism would be subject to consultation and would not be retrospective.

NGET proposal

- The SO has proposed a £7.7m a year **risk premium** to cover residual risk. We propose not to introduce this as we are of the view the sharing factors, caps, floors and uncertainty mechanism mean risks are not different to those currently faced.

Q15: Do you agree with our proposals on an uncertainty mechanism and risk premium?

Black start: possible cost incentive



Ofgem proposal

- Considering a financial incentive based on the annuitized cost of new plant. The cap and floor for the scheme would be +/-10% of target costs with a 25% sharing factor
- **Option 1: Similar to the SO's proposals except:**
  - Take into account other ancillary service revenues (e.g.. STOR) when setting the target
  - Use a power station cost index
  - Include new contracts in the target 18 months before they start providing services
  - Accrue incentive payments over a four year period.
- **Option 2: No cost incentive and instead monitor the procurement processes of the SO**
  - Ensure tenders are as competitive as possible. May be desirable given importance of the service and difficulty in setting reasonable cost targets.

Q6: Do you think we should retain a cost incentive on black start? Do you consider the proposed parameters are appropriate?

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