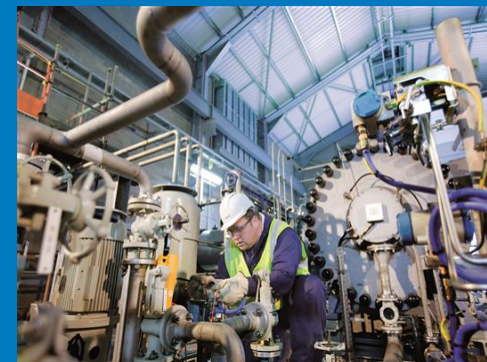
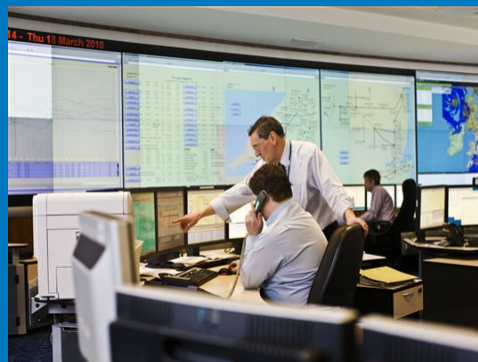


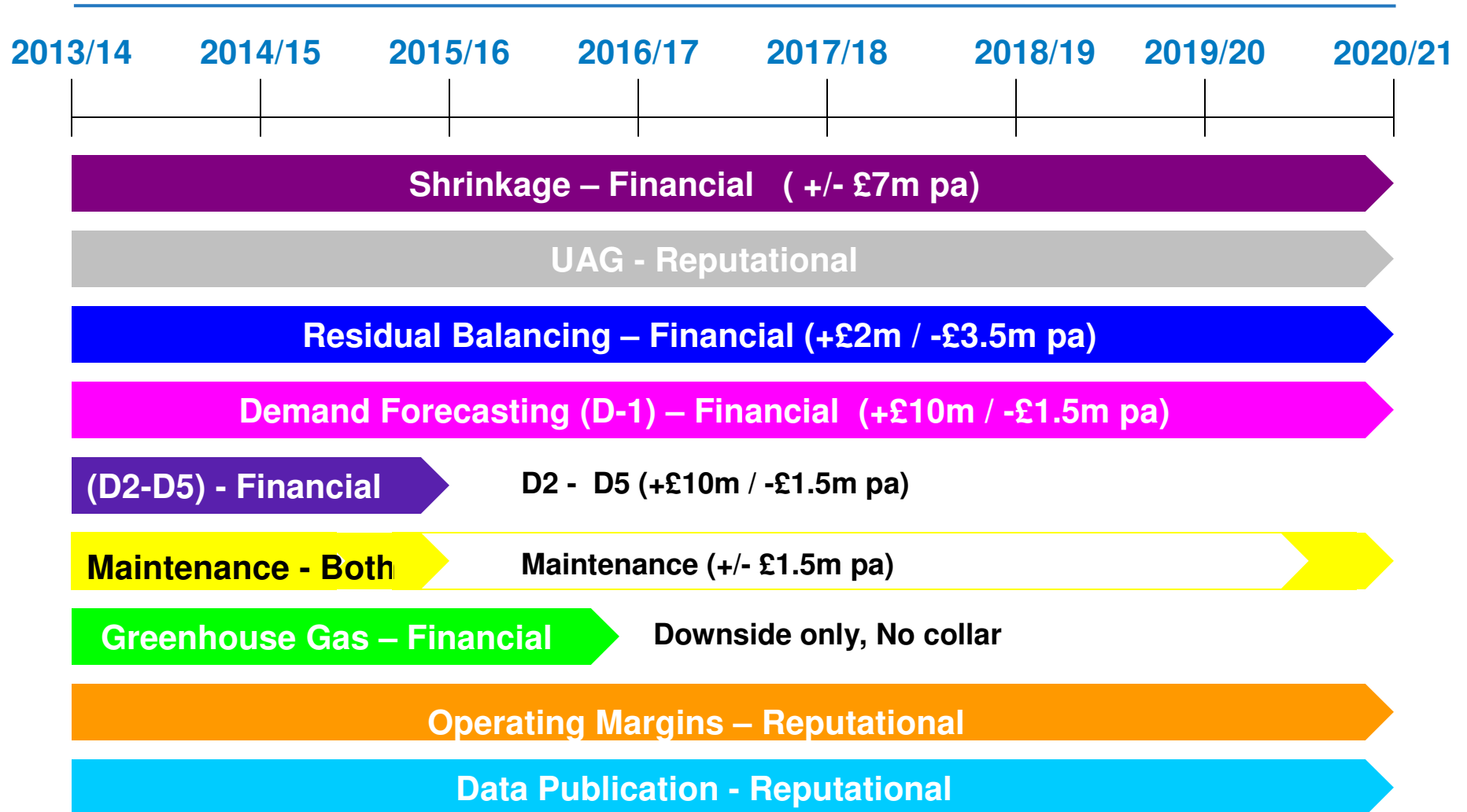
Gas Forum - March 2013



System Operator (SO) Incentives

David Wildash

Incentives overview



NTS Shrinkage

- Incentivises minimisation of the energy costs associated with operation of the network including
 - Compressor fuel, UAG and CV shrinkage
- Cost target made up of volumes multiplied by price benchmarks
- Changes from current scheme:
 - 45% sharing factor
 - Forecast volumes from a methodology – forwards and prompt procurement
 - Updated price benchmarks:
 - 9 months ahead of quarter for forwards procurement
 - Week-ahead for 'prompt'
 - Reduced fixed swing allowance (£2m per annum)
 - Current environmental adjustment removed
- Pass through of environmental costs (EUETS & CRCEES) and other electricity supply & trading costs

8 Year scheme: Annual Cap +£7m , Collar -£7m

UAG – Unaccounted Gas

- Existing reputational incentive maintained in the RIIO-T1 period
 - Undertake UAG Projects
 - Meter validation witnessing
 - Data analysis
 - Publish UAG Report
 - Every 6 months

8 Year scheme: Reputational

Residual Balancing

- Aims to ensure National Grid balance supply/demand each day, with minimal impact on markets
- Scheme is unchanged from current incentive
- Two elements designed to ensure that balancing actions are economic and efficient
 - *Price performance Measure (PPM)* - Defined as the price differential between any National Grid trades, measured as a percentage of the System Average Price (SAP)
 - *Linepack performance Measure (LPM)* - Incentivises National Grid to minimise any changes between starting and closing NTS linepack over a gas day

8 Year scheme: Annual Cap +£2m , Collar -£3.5m

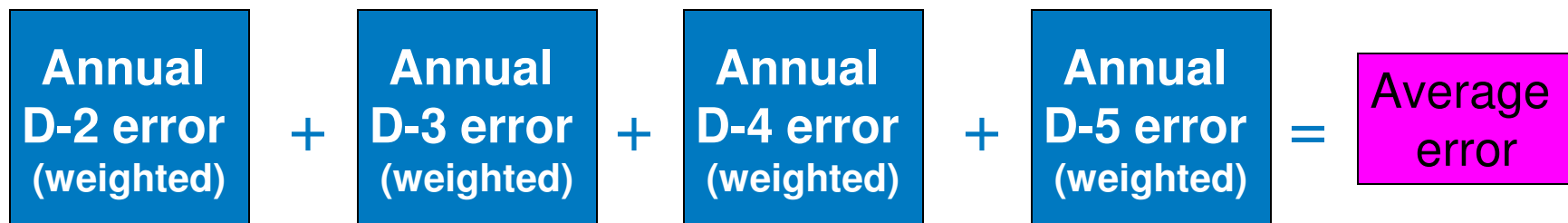
D-1 Demand Forecasting

- Incentive on accuracy of day ahead demand forecast
- Current scheme target on a percentage of daily demand
- New scheme is a volume target of 8.5mcm/d
 - Additional short cycle storage adjuster capped at a further 1mcm
 - Annual adjustment reduces in impact by 50% per year
- Performance weighted to daily demand
- Performance is more significant on high demand days

8 Year scheme: Annual Cap +£10m , Collar -£1.5m

Demand Forecasting D-2 to D-5

- Incentive on our accuracy of four demand forecasts (D-2, D-3, D-4 and D-5)
- Performance is weighted to daily demand
- Fixed target of 16mcm/d
- Performance equal to the average error of the four demand forecasts



2 Year scheme: Annual Cap +£10m , Collar -£1m

Maintenance

- New area of incentivisation in response to customer feedback
 - Provision of indicative maintenance information (publish on NG website where possible) earlier (up to 3 years ahead)
 - Use reasonable endeavours to
 - Agree changes to plan with affected customers
 - Raise awareness of the Minor Works Agreement
 - Publish a report on website by 1 June summarising Maintenance undertaken in previous year
 - Provide changes information (including customers impacted) to Ofgem to enable updated 'changes' scheme from April 2015

8 Year scheme: Reputational

Maintenance – Changes scheme

- Minimisation of National Grid initiated changes to April Maintenance plan
- Customer initiated changes are not included in the incentive
- Scope: changes (including reductions) and cancellations of Maintenance Days at direct connects and NTS Connected System Exit Points (CSEPs)
- Target fixed for two years reflective of workload (14.5% of Days) in the April maintenance plan
- Incentive gain/loss: £50k per change compared to benchmark

2 Year scheme: Annual Cap +£0.5m , Collar -£0.5m

Maintenance - Days Use Scheme

- Minimisation of maintenance days used
- Scope: ILI (In line inspections) and valve operations only
- Target:
 - ILI benchmarks for short (up to 10km) and long (greater than 10km) runs multiplied by actual workload
 - Valve operations annual benchmark
- Incentive gain/loss: £20k per day, compared to benchmark

2 Year scheme: Annual Cap +£1m , Collar -£1m

Greenhouse Gas Emissions

- Minimisation of venting from NTS compressors
- Now a downside only scheme
- Each year will see a 3% reduction in our current target:
 - 2013/14 = 2,917 tonnes
 - 2014/15 = 2,829 tonnes
 - 2015/16 = 2,744 tonnes

- Venting calculated over the course of a year including:
 - Starting a compressor
 - Purging a compressor
 - Depressurising a compressor; or
 - The leakage of gas through a seal around the shaft of a compressor



3 Year scheme: Downside only, no collar

Operating Margins - OM

- Under our Safety Case we are required to procure OM services
- Gas available to the system to deal with system stresses both pre-emergency and in an emergency
- Reputational incentive:
 - Obligation to procure OM in an economic and efficient manner
 - Obligation to publish an annual OM report after procurement exercise
 - Obligation to promote competition in the procurement of OM

8 Year scheme: Reputational only

Data Publication Incentive

- Financial incentive replaced with a reputational scheme
- Covers forward looking market information and operational data e.g. Winter Outlook

The screenshot displays the National Grid website's navigation menu and a featured section for 'Operational Data'. The navigation menu includes links for Home, About Us, Energy & Services (highlighted), Media, Community, and Careers. Below this, there are buttons for Gas, Electricity, Metering, Property, Interconnectors, Land and Development, and Grain LNG. The main content area features a large image of a National Grid van with the company logo. Below the image, the 'Operational Data' section is titled 'Operational Data' and 'Welcome to the Operational Data Site', with a sub-headline stating 'This section of our site provides access to Operational Data to all relevant industry stakeholders.' To the left of this section, there is a sidebar with links for 'About the Gas industry', 'Pipeline Projects', 'Connections', and 'Operational Data'. To the right, there is a small image with the text 'Customer Commitment' and 'nationalgrid'.

8 Year scheme: Reputational only

IAE / Uncertainty Mechanism

- Enables an incentive to be revisited. Triggered by Ofgem but NG & industry can submit evidence that a trigger has been met

- Triggers for 'shallow' SO incentives:
 - Hitting, or expectation of hitting cap or collar for 2 consecutive years
 - Legislative or regulatory change, force majeure or emergency
 - Material events (>£5m impact on incentive revenue)
 - For Residual Balancing: material impact of wind on CCGT behaviour

Future Focus – Delivering SO outputs

Enhancing
customer
satisfaction

Reducing
Emissions

Incentive to
reduce number
of Maintenance
Days used

Enhance
competition
in OM
provision

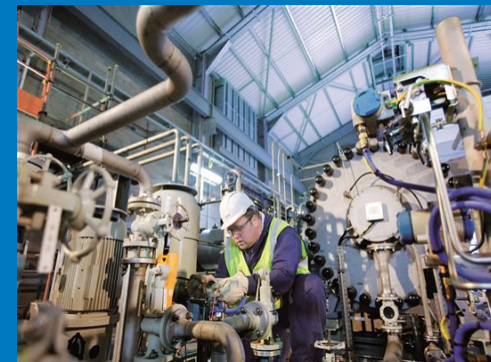
Increasing
accuracy
of
Forecasts

Increased
engagement
with our
customers

Optimising
energy
procurement
strategies

Efficient
planning of
maintenance

Appendix slides



Residual Balancing

PPM

Difference between maximum and minimum price of NGGT's balancing trades: 1.5% of SAP



£1,500



-£30,000

LPM

Daily difference between opening and closing linepack: 2.8mm

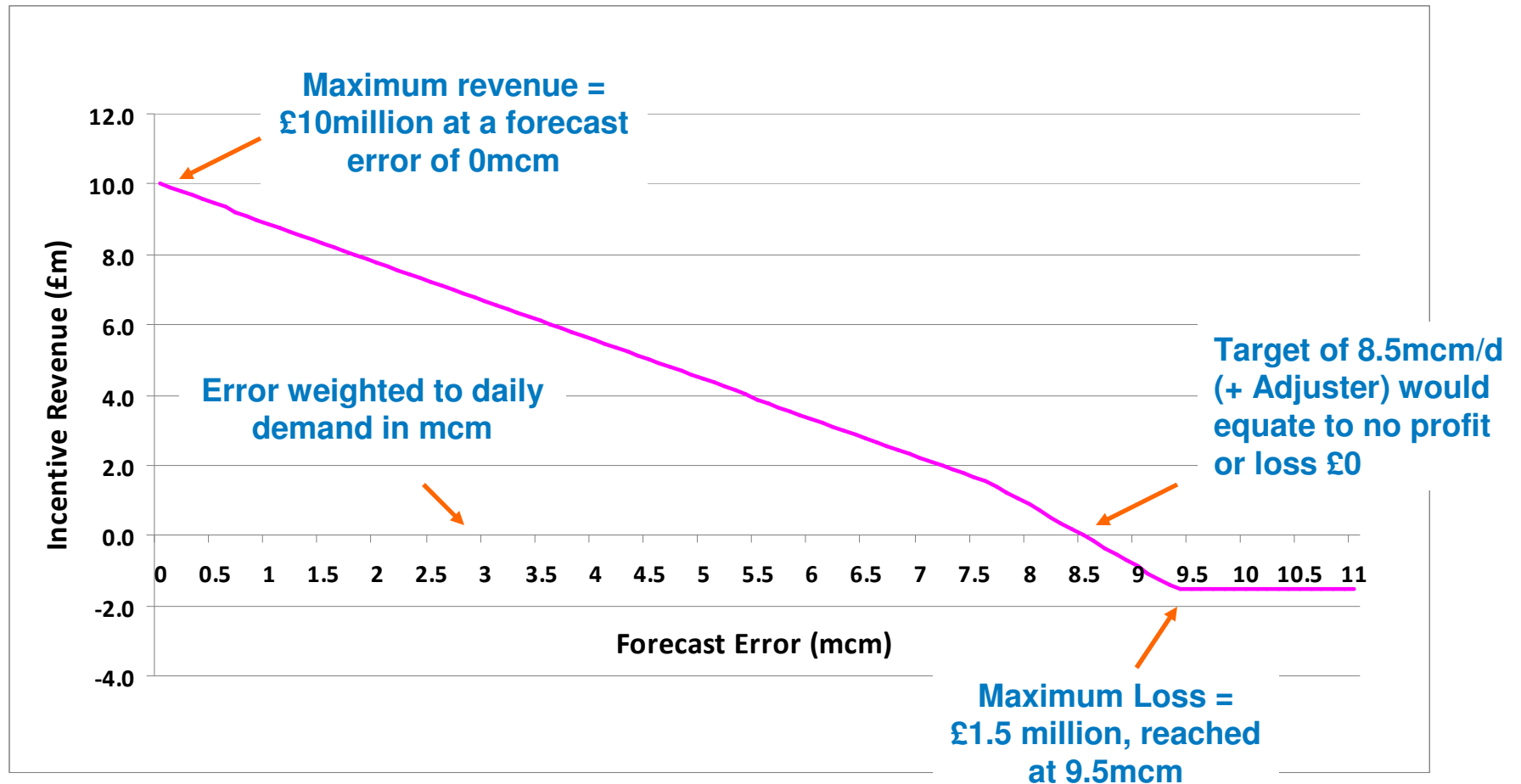


£4,000

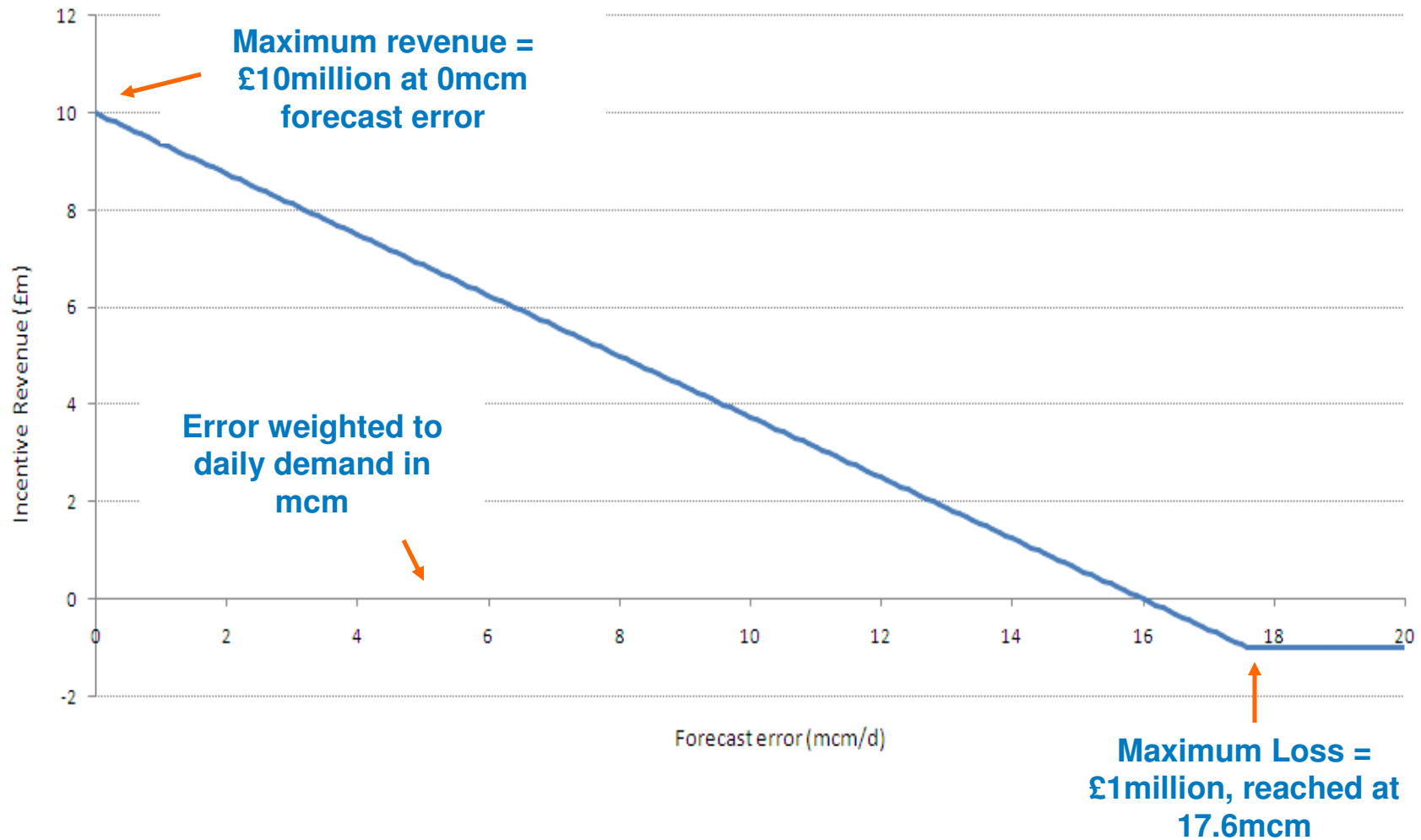


-£30,000

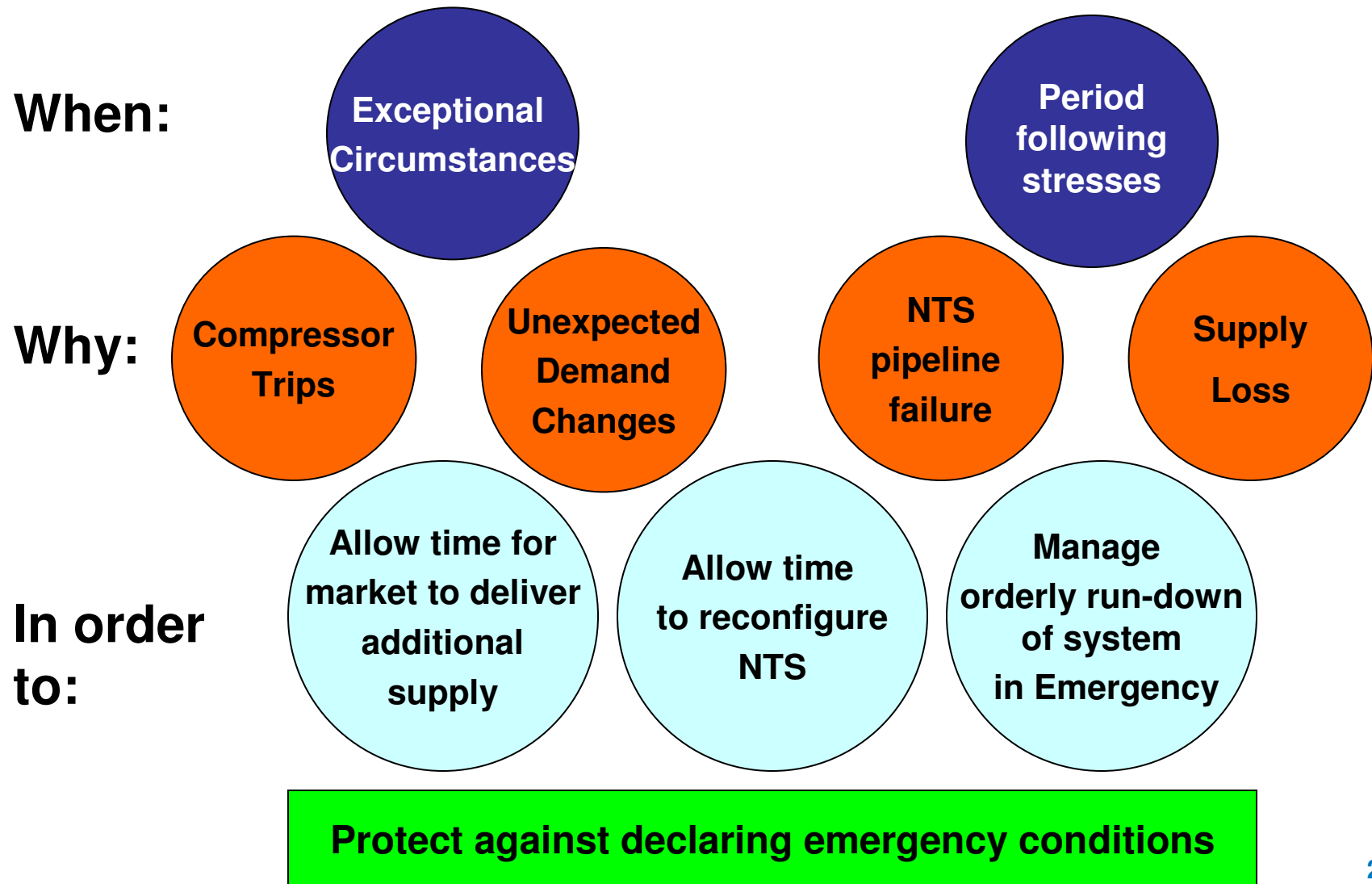
Demand Forecasting D-1



D-2 to D-5 Demand Forecasting



What is OM



Contact Details for Gas SO incentives

- For any follow up questions on Gas SO incentives:

Email: Soincentives@nationalgrid.com

Or

- Contact: David Wildash (01926 65 4946)

David.Wildash@nationalgrid.com

- Contact: Juliana Pollitt (01926 65 6195)

Juliana.Pollitt@nationalgrid.com