

# Information Provision - Constraints

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# Presentation Outline

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- ◆ Overall objective of information transparency
- ◆ Constraints and key drivers
- ◆ How constraints are resolved
- ◆ Information currently published on constraints
- ◆ What additional information does the industry need?

# Overall Objective of Information Transparency

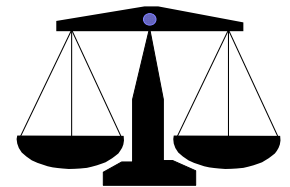
## Timely and clear market data provided to all participants

- ✓ More informed decisions
- ✓ Improved self-balancing
- ✓ Increased competition
- ✓ New entrants



## Favourable impact on system operation

- More efficient procurement of balancing services
- More efficient residual balancing



## Minimise / optimise SO costs and BSUoS charges

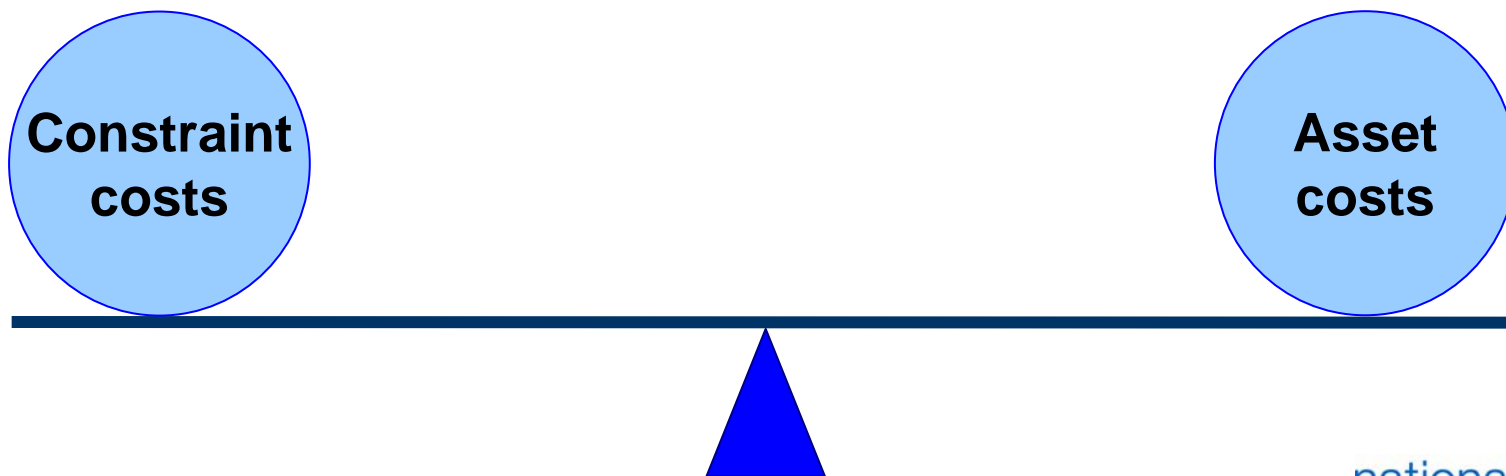


# Constraints

## What is a constraint?

A constraint exist if a boundary transfer (generation – demand) violates the secure transfer capability.

Constraints are an integral part of optimum system design



# Constraints – Key Drivers

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- ◆ Transmission system outages
- ◆ Generation
- ◆ Interconnector flows
- ◆ Demand
- ◆ NET SQSS (thermal/voltage/stability limits)

# How constraints are resolved

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- ◆ Transmission system reconfiguration and reinforcement
- ◆ Constraint management contracts
- ◆ Demand-side actions
- ◆ Locational trades
- ◆ SO-SO trades
- ◆ BM actions
- ◆ Intertrips

# Constraint-related information sources

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- ◆ Procurement Guidelines (PG) report  
<http://www.nationalgrid.com/uk/Electricity/Balancing/transactionlicensestatements/>
- ◆ Monthly Balancing Services Summary (MBSS)  
<http://www.nationalgrid.com/uk/Electricity/Balancing/Summary/>
- ◆ BSIS consultation  
<http://www.nationalgrid.com/uk/Electricity/soincentives/>
- ◆ Balancing Mechanism Reporting Service (BMRS)  
[www.bmreports.com](http://www.bmreports.com)

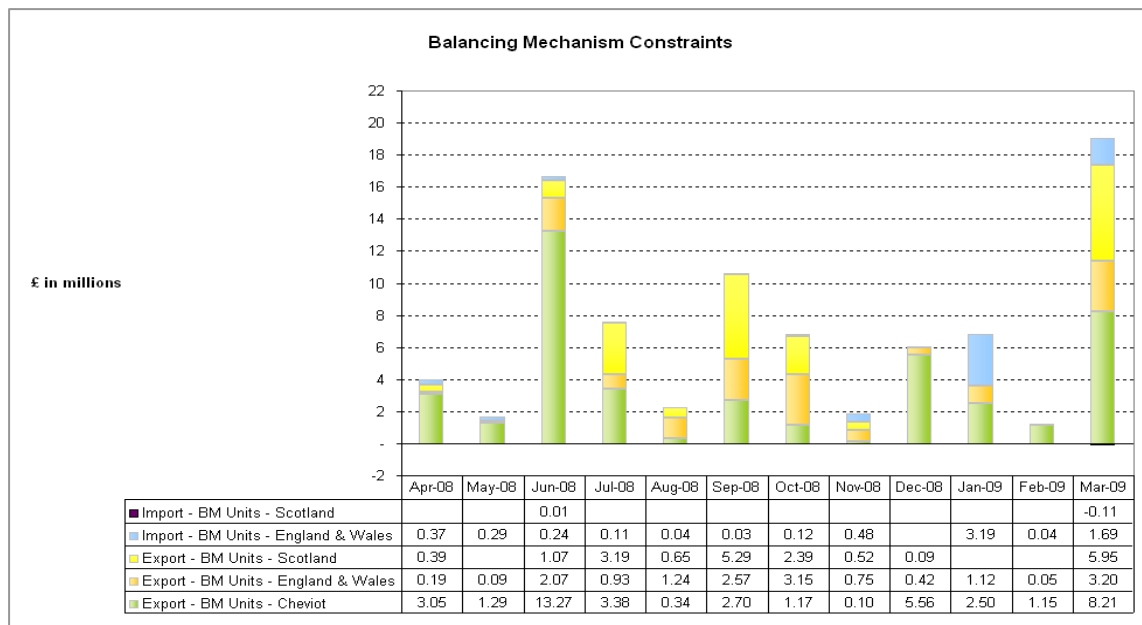
# Procurement Guidelines report - example

## Level of detail for constraint costs:

- Annually published
- Ex post
- Aggregated by month
- Aggregated for
  - Scotland
  - England & Wales
  - Cheviot
- Import / export

## Other related data available:

- System-to-generator and Commercial intertrips
- Ancillary contracts





# Summary of constraint-related information

CBSG 12/4/10						
Level of Detail	Source of Constraint-related Information					
	PG report	MBSS	BSIS	Forecast	BMRS	
Type of information	Constraints; System to generator intertrips; Commercial intertrips; Ancillary contracts	Same as PG report	Constraints	Generation / Output Usable*; Demand; Surplus;	Generation; Demand; System frequency	Constraints (post P217)
Cost	✓	✓	✓	x	x	✓
Volume / other	x	Constrained volume; Arming hours (commercial intertrips);	x	✓	✓	✓
Import / export split	✓	✓	x	x	x	✓
Geographic split	Scotland; E&W; Cheviot.	Scotland; E&W; Cheviot.	Scotland; E&W; Cheviot.	National'; Zonal (by BMRS zones);	National';	BMU level
Ex ante	x	x	✓	✓	x	x
Ex post	✓	✓	✓	x	✓	✓
Publication timing	Within 1 month	Within 1 month	Consultation timeline	day ahead 2-14D ahead; 2-52W ahead;	Real time; Within 15 minutes after Settlement Period;	Within 15 minutes after Settlement Period;
Publication frequency	Annual	Monthly	Annual	at least 4 times a day (demand; daily; weekly	Real-time, Half-hourly;	Half-hourly;
Data aggregation period	Month	Month	Year	Half-hour; day; week	one minute (frequency graph); 5-minute; half-hour	Action-dependent

\* At BM Unit level from 4/11/10

# What additional information does the industry need?

