

# Attributing a cost to non-costed actions

These slides are initial thoughts to aid discussion only. They are not in any way meant to signify the views of GEMA, which for the avoidance of doubt has not made any decisions on this particular issue.

## Contents

- Non-costed actions
- Non-costed actions in the cash-out price
  - Value of lost load (VoLL)
  - Voltage control
- Payments for involuntary demand disconnection
- Models for implementation
- Gas Significant Code Review
- Key Questions

## Non-costed actions

- A cash-out mechanism that reflects all the System Operator's actions to resolve the energy imbalance provide appropriate incentives to avoid imbalance
- Many consumers are not currently able to reveal the value of security of supply
- Some actions that the SO can currently take have no associated value in the cash-out price
  - Involuntary demand disconnection
  - Voltage control
- Are there others?

## Non-costed actions in the cash-out price

- We are considering introducing prices for currently non-costed actions to:
  - Strengthen incentives for participants to balance by reflecting prices for these actions in cash-out where appropriate
  - Set level of payment for involuntary demand disconnection and voltage control where appropriate

## Value of lost load (VoLL)

- Ideally consumers could reveal their individual value of security of supply – their **Value of Lost Load (VoLL)** – but this is not usually possible. We will consider establishing VoLL

### Establishing VoLL

- Number of difficulties in establishing an accurate VoLL for GB – range of consumers, time of day, seasons etc
- Number of different ways of establishing VoLL
- A number of studies have been carried out, resulting in a wide range of VoLLs

### Application of VoLL

- What is the appropriate VoLL – min/max/average? Domestic/Industrial, etc?

## Voltage control

- Voltage control can also be used to balance the system, but has no cost reflected in the cash-out price
- Less available information about the cost that reduced voltage would have on consumers of electricity
- We are interested in views on how the value of voltage control could be established
  - A consumer study?
  - An engineering study to establish estimation of damage?
  - Assessment of costs of avoiding / mitigating impact of voltage fluctuations?

## Payments for involuntary demand disconnection

- Consumers currently bare the risk of interruption to firm supplies but most are not well placed to do so
- Firm disconnections are a form of Demand Side Response.
  - Although involuntary, it is a balancing action that consumers should be paid for – ideally at their VoLL
- Funded by cash-out receipts
- We would also consider whether it would be appropriate to establish payments for voltage control

## Models for implementation

- Allowing cash-out to rise to reflect costs to consumers on involuntary interruption/voltage control
  - Trigger in BSC when SO instructs demand reduction/voltage control
  - Introduction of a VoLL based price in the cash-out stack ie a BOA for demand reduction
  - Other?
- Payments for affected consumers
  - Payment to the respective suppliers from cash-out, Licence condition requiring suppliers to pay consumers



## Gas Significant Code Review

- As part of the Gas SCR London Economics provided an estimate of VoLL for different categories of customer for the Gas SCR
  - Stated preference survey for domestic and SME customers
  - Willingness-to-pay (WTP) and willingness-to-accept (WTA) framing of the experiment
  - Value at risk for I&C
  - VoLL estimates for different frequencies, seasons and durations of interruptions
- Gas SCR proposals set cash-out to £20 per therm (an estimate of domestic customers' VoLL) in a Gas Deficit Emergency (GDE) once gas supplies to firm customers are curtailed
  - to provide a strong incentive for shippers to arrange interruptible contracts with industrial and commercial (I&C) customers.
- Interactions between VoLL for gas and VoLL for electricity, as gas-fired generators are consumers of gas, but producers of electricity

## Key Questions

- Is it appropriate in principle to reflect a price for non-costed actions?
- Would participants receive VoLL for increasing generation when demand is reduced? If so, would this be reflected in the cash-out price?
- Is it appropriate to establish an administrative VoLL if consumers cannot specify their own VoLL?
- Impact of VoLL on cross-border trade and the European Target Model?
- What are the implications of the interactions with Gas VoLL?

The background of the slide is a composite image. On the left, there are rows of solar panels under a bright sun. On the right, a hand is shown holding a white document. In the bottom left corner, a blue gas burner is visible. The overall theme is energy and customer service.

*ofgem*

Promoting choice and value  
for all gas and electricity customers