

# Condition 3 – Treatment of Intermittent generation

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# The condition

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- ◆ Review, invite views and to consult on alternative methods of treating intermittent generation.
- ◆ Bring forward proposals for implementation in April 2007,
- ◆ If no changes publish report

# Process to date

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- ◆ Process proposed at April 05 TCMF
- ◆ Questionnaire sent out June 05
  - ◆ seeks views from industry
- ◆ Responses on website
- ◆ National Grid considering the issues raised

# Summary of responses

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- ◆ Treatment of low load factor plant
- ◆ Focus on renewable plant that does not have full control over primary fuel source
- ◆ Split on whether methodology should change
- ◆ Recognition of linkage to rights
- ◆ Should reflect impact on investment planning
- ◆ Consider:
  - ◆ review modelling in transport and tariff
  - ◆ Commodity based charging for generation

# Issues raised

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- ◆ Interaction with SQSS
- ◆ Methods of modelling
- ◆ Not covered:
  - ◆ Commodity based charging
  - ◆ Load factor based charging

# Licence requirements C7

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- ◆ Discrimination - need to reasonably reflect that such a class has different costs.
- ◆ Aiming to establish if there is a consistent quantifiable reduced investment cost that can be factored in to the methodology

# SQSS (1)

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- ◆ Calculation of transfer requirement only one element of SQSS
- ◆ The calculation of of transfer requirement treats wind differently to thermal - under review
- ◆ Thermal modelled at 83% (after scaling), wind modelled at 60%
- ◆ Interconnection allowance for groups greater than 1500MW
- ◆ No difference for 'local' infrastructure

# SQSS (2)

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- ◆ Establish the average percentage of works that are split between local and wider infrastructure
- ◆ SQSS also considers economic benefit - management of constraints
- ◆ Initial analysis shows that when considering economic benefit there is no difference
- ◆ SQSS external review expected to conclude March 06
- ◆ Use of TEC - 'total installed capacity'/'maximum power deliverable'

# SQSS Process

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- ◆ SQSS models removes plant above 120 %.
- ◆ Factor is then applied to plant  $t=1$ ,  $W=0.72$
- ◆ Treatment of wind in an importing area
- ◆ Plant is then scaled to meet ACS
- ◆ Interconnection allowance is calculated
- ◆ required transfer calculated
- ◆ Required transfer is likely to be less with wind (exporting areas)
- ◆ Economic assessment performed

# Economic assessment

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- ◆ Is the value of investment less than the expected operational costs? case by case analysis
- ◆ Considers the expected constraint costs:
  - ◆ will vary depending on plant available for constraint management
  - ◆ ensure the system can secure demand
  - ◆ Cost of ROCs
- ◆ Year round studies
- ◆ No clear evidence that the actual cost are significantly different

# Modelling

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- ◆ In tariff only
  - ◆ differentials do not change
  - ◆ Tariff increases (due to locational weighting)
- ◆ In transport only
  - ◆ differentials reduced
  - ◆ affects demand and generation tariffs
- ◆ In both
  - ◆ for generation the increase in tariff cancelled out by differential
  - ◆ for demand tariffs are increased

# Wider issues

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- ◆ Outcome of RETS / SQSS debate
- ◆ CUSC interactions
  - ◆ Linkage to rights
  - ◆ Tradability
  - ◆ Does intermittent generation need a different product?
- ◆ Treatment of wind in negative or importing zones

# Next steps

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- ◆ Wider internal review
- ◆ Seek more data on historical costs
- ◆ Seek data from TOs
- ◆ Consider SQSS issues