

If...

Transmission Access Standing Group 15th

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on behalf of Renewable Energy Association

Renewable Target 2020

- 20% Energy is probably around 34% electricity generation
- As much renewable electricity is intermittent, renewables as a % of capacity will be much higher than this
- If there is to be any chance of success (or even partial success) then a number of things need to happen

Implications of high penetration of intermittent generation 1

- For same overall level of security there will be a higher capacity margin i.e. the margin of generation over peak demand will be higher than at present
- Much of this generation will be low / medium load factor renewable capacity
- Also, much dispatchable plant will have lower load factors, as it will mainly be called upon at high demand periods if intermittent generation output is low

Implications of high penetration of intermittent generation 2

- Much higher plant margins imply the need to share transmission capacity. It can not be economic to provide transmission capacity for any combination of generation particularly as there is only enough demand to require a proportion of it to generate at any one time
- There may be a need for new market arrangements so that low load factor conventional plant is available as necessary

Shared transmission capacity (1)

- Recognition in way system is planned (SQSS development)
- Possible consideration of constraint mechanisms
- New access product needed (probably for everybody, not just new generation)

Shared transmission capacity (2)

- Less transmission required per MW generation capacity, hence overall lower charges / MW for generation
- Less delay in connecting new generation – new low carbon generation should be connected without having to wait for infrastructure reinforcement
- Limitation of generation wanting to run to level of demand may result in little extra difficulty in day to day management

If...

- If the TASG grasps this nettle it will have done its bit to facilitate the reduction of CO₂ emissions (although we do recognise that lots of other things are needed)
- If the TASG fails to grasp this nettle then it will have missed an opportunity
- Even worse...

If...we fail

- We will be back in 18 months' time to try again!