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Understanding best practice regarding interruptible connections for wind generation: lessons from national and international experience

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Abstract : The aim of this study is to explore different practices for accelerating the integration of generating facilities to the electricity network using smart solutions. Case studies from Great Britain, Ireland and Northern Ireland and the Unites States were selected. The paper assesses and compares the different Principles of Access (POA) that have been implemented in these countries, such as Last-in First-out (LIFO), Pro Rata and Market-based. The social optimality of these approaches is also discussed. The paper also evaluates how the risk (regarding curtailment and investment) is allocated between parties (distributor network operators, generators and customers). Even though the cases are diverse, important findings and lessons have been identified which may assist UK distribution network operators to address the issue of increasing the connection of distributed generation while managing efficiently and economically energy exports from generators.

Keywords distributed generation, wind generation, non-firm, smart solutions

JEL Classification L51, L94, Q20, Q28,Q40

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