



Regulating Electricity Distribution Networks to Promote "Smart" Technologies and Innovation

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From a DSO's perspective, what is needed to deliver smart measures efficiently and how can regulation help?



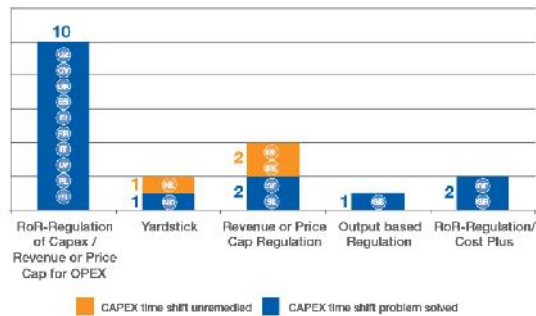
The incentives imposed on DSOs through tariff regulation determine whether these conditions for the efficient use smart grid technologies are satisfied



European regulatory models do not tend to encourage smart grid deployment

- Many EU jurisdictions still adopt regulatory methods that suffer from these shortcomings
- Most DSO's surveyed by Eurelectric say their regulatory frameworks do not support smart grid investments

Types of Regulatory Regimes Used Across 19 EU Member States



Does the Regulatory Regime Support Innovation?



Source: Electricity Distribution Investments: What Regulatory Framework Do We Need?, Eurelectric, 2014.

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A range of reforms to regulatory arrangements to DSOs might help promote smart grid measures

- Where there is cost-plus/rate-of-return regulation, new investment approval processes or planning standards should:
 - Incorporate non-network solutions to encourage or oblige DSOs to trade-off "smart" and traditional solutions.
 - Recognise anticipatory investments, possibly combined with higher rates of return, commensurate with the risks associated with these assets
- Where there is incentive regulation, regulators should offer equal treatment of Opex and Capex to remove Capex biases
- Innovation is also important in promoting smart grids:
 - Most European regulatory regimes provide weak incentives for innovation, so some are providing significant R&D funding
 - Some less developed markets may prefer a "fast follower" model
- Cost-reflective network pricing and procurement mechanisms for non-network technologies will all help third parties to provide network services

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