

## Regulating the Electricity System Operator: Lessons for Great Britain from around the world

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**Abstract** This study explores the international experience with independent system operators (ISOs) with respect to the incentives that system operators face to operate the electricity network efficiently (from the point of view of society). We look for lessons that we can learn from this experience for the future regulation of the Great Britain (GB) System Operator (National Grid Electricity Transmission). We examine seven ISOs from the USA, where the model seems to be successful but with some cost issues within the system operator itself. We also examine system operators from Australia (AEMO), Chile (SIC/SING) and Peru (COES). Our findings are supported by a short survey that was sent directly to our contacts in the system operators from our sample of ISOs.

Against a background of rising distributed renewable generation on the electricity system, we discuss the international experience of ISOs with respect to their incentives to: maximise social welfare; manage the increasing amount of renewables and new participants; manage their overall actions for customers; engage in stakeholder participation and transparency.

**Keywords** Independent System Operator, Electricity, Regulation

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