626

MARKET OPERATORS – Their Evolution, Current Organisation and Future Structure

Working Group C2/C5.05

July 2015



MARKET OPERATORS — THEIR EVOLUTION, CURRENT ORGANISATION AND FUTURE STRUCTURE

JWG C2/C5-05

Contributors

Ole Gjerde (NO) - Convenor, Ben Li (CA) - Secretary, Al DiCaprio (USA), Dennis Klaar (NL), Hiroaki Sugihara (JP), Hiroshi Asano (JP), Juan Bogas (ES), Mark Miller (AU), Philip Johnson (UK), Saulo Cisneiros (BR), Teresa Smit (SA), Todd Ramey (US).

Copyright © 2015

"Ownership of a CIGRE publication, whether in paper form or on electronic support only infers right of use for personal purposes. Unless explicitly agreed by CIGRE in writing, total or partial reproduction of the publication and/or transfer to a third party is prohibited other than for personal use by CIGRE Individual Members or for use within CIGRE Collective Member organisations. Circulation on any intranet or other company network is forbidden for all persons. As an exception, CIGRE Collective Members only are allowed to reproduce the publication.

Disclaimer notice

"CIGRE gives no warranty or assurance about the contents of this publication, nor does it accept any responsibility, as to the accuracy or exhaustiveness of the information. All implied warranties and conditions are excluded to the maximum extent permitted by law".



ISBN: 978-2-85873-329-3

MARKET OPERATORS – THEIR EVOLUTION, CURRENT ORGANISATION AND FUTURE STRUCTURE

Table of Content

| Preamble | |
|---|----|
| Executive Summary | 5 |
| 1 Introduction | 6 |
| 2 Overview of Market Formation and Role of Market Operators | 6 |
| 2.1 North America | 6 |
| 2.2 Europe – Overview | 7 |
| 2.3 Europe – Nordic | 12 |
| 2.4 Europe – Spain and Portugal | 14 |
| 2.5 Europe – Great Britain | 16 |
| 2.6 Europe – The Netherlands, Belgium and Luxembourg | 19 |
| 2.7 Europe — France | |
| 2.8 Europe — Germany | 23 |
| 2.9 Australia | |
| 2.10 Japan | 28 |
| 2.11 Brazi | 31 |
| 2.12 South Africa | 37 |
| 3 Conclusions | |
| Bibliography/References | 38 |
| | |

Preamble

This Technical Brochure (TB) is the result of work by the Joint Working Group (JWG) C2/C5-05, which has recently conducted a review of the evolution and current organisation of Market Operators. The work was initiated through the JWG's terms of reference updated in 2012. This Technical Brochure provides details of the review, including an assessment of the future challenges and trend of structure.

Executive Summary

The CIGRE Joint Working Group JWG C2/C5-05 has completed a review of the historical development, current trend and future structure of market operators in developed electricity markets and those that are under development. Markets in North America, United Kingdom, Northern and Continental Europe, Australia, Japan, South America and South Africa were included in the review.

From the analyses, the following key observations were made:

In the electric industry, the term Market Operator generally refers to the entity that manages the electricity marketplace to provide an efficient trading platform for transacting electric energy and ancillary services. This managing function is usually established at the onset of market liberalisation, and performed by either an independent organisation separate to the System Operator (either a Transmission System Operator (TSO) or an Independent System Operator (ISO)) or an entity controlled by the System Operator to simultaneous achieve the objectives of system reliability and market efficiency.

The primary role of a Market Operator is to manage bids and offers of energy, capacity and transmission rights from multiple days (or longer) ahead to day ahead. In some markets, the Market Operator extends this role into hours ahead, in which case, the role of the Market Operator and the System Operator may begin to overlap, and the market operations tasks may be integrated to a certain extent. In these markets, the System Operator performs both functions or closely cooperates with the Market Operator(s) to achieve an efficient and robust market model.

Over the years, the role of Market Operator has undergone changes as a result of market evolution and/or regulatory drivers. A general trend has been that electricity market sizes has grown bigger, with fewer markets, and with the adoption of common or harmonised market rules. Market merging and market coupling have been the key items on the regulators' agenda.

This Technical Brochure aims to present the historical development of Market Operators, their evolution and an overview of how they are organised today. The Technical Brochure also provides an assessment of the future trend of Market Operator organisation under the influence and drivers for change such as enhanced market efficiency, increased utilisation of demand response, increased penetration of intermittent energy sources and the rapid development of Smart Grid.

Keywords: Market Operator, Power (Electricity) Exchange, System Operator, , Market Efficiency, System Reliability, Liberalisation, Deregulation