



2010 Activity Report

Study Committee C5

1. Highlights

- a) Market Disturbance Workshop in Paris 2010. Very successful. New event in November 2011 in Sydney.
- b) Progress on reports and many in pipeline for 2011
- c) The SC C5 increased focus of not making the scopes too broad and more frequent reports from WG's

2. Working group changes since the last TC meeting :

- a. New WG
 - i. None (3 under development)
- b. WG Disbanded
 - i. W5-8 Renewable and energy efficiency in a deregulated market (Work finished – Electra report prepared – Disbanded when report approved)
- c. Allocation of WG to the 4 TC strategic directions (template in the appendix)

<i>WG</i>	<i>Title of the WG</i>	<i>Strategic Directions*</i>
C5-3	Investments and Financing	1
C5-7	Market design - Structure and design of electricity markets	1, 2
C5-8	Renewable and energy efficiency in a deregulated market	1, 2, 3
C5-9	Retail Market Competition – Customer Switching, Metering and Load profiles	1
C5-10	Establishment of Effective and Sustainable Regulatory Incentives for Capital Investments in Electricity Networks and Generation	1, 2, 3
C5-11	Market design for large scale integration of renewable energy sources and demand side management	1, 3
C2/C5-02	Development and Changes in the Business of System Operators	1, 2

* Strategic Directions : indicate the main strategic direction, or the two main directions if needed

- 1 : The future power system
- 2 : Best use of the existing power system
- 3 : Environment and sustainability
- 4 : Communication with the public and with political decision makers

3. Publications

- a. Publications since the last TC meeting (April 2010)
 - i. WG C5-6 Ancillary Services: An overview of International Practices, (Technical Brochure 435 + Summary in Electra)
 - ii. Market Disturbance Workshop of SC C5 – Electricity Markets and Regulation (Electra June 2011)
- b. Publication plan for the coming year



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- i. JWG C2/C5-05: “Interfaces between System Operators and Regulators”. (Technical Brochure - completed)
- ii. WG C5-8: Renewable Energy and Energy Efficiency – Market Integration (Electra Paper - completed)
- iii. WG C5-3: Funding Generation and Transmission Investments (Technical Brochure spring 2011)
- iv. WG C5-7: Case studies of Market Adequacy Designs (2011)
- v. WG C5-7: Energy Market Coordination – Balancing Electricity Markets with Gas Markets (Technical Brochure 2012 – tries to speed up)
- vi. WG C5-7: Interdependencies between Wholesale and Retail Markets (2011 Electra Paper or TB)
- vii. WG C5-11: Market design for large scale integration of renewable energy sources and demand side management (Technical Brochure June 2011, Paper at C5 Colloquium, Sidney)
- viii. WG C5-09 Retail Market Competition – Customer Switching, Metering and Load profiles (Technical Brochure, Summary Electra, Paper Colloquium Sydney)
- ix. WG C2/C5-05: Interaction between principles of transfer capacity calculation and market activity for enhanced system utilization – from a system operation perspective (Technical Brochure 2011)
- x. WG C5-10 Establishment of Effective and Sustainable Regulatory Incentives for Capital Investments in Electricity Networks and Generation (Technical Brochure + Paper Sydney 2011)
- xi. JWG C2/C5-05: Interfaces and co-operation between System Operators and Power Exchanges”. (Technical Brochure 2012)

4. Tutorials and workshops in 2010

- a. Market Disturbance Workshop in Paris 2010.

5. Strategic Plan and Action Plan : status (to be reviewed, updated, re-written or still valid)

- a. Strategic plan (2009 – 2018) updated (made more focused)
- b. Action plan (2009 – 2013) updated
- c. Both plans are under review at C5 meetings

6. Planned SC meetings (in 2010 and next)

- a. November 2011: C5 Annual Meeting, Sidney, Australia
- b. August 2012: General Meeting in Paris, France
- c. November 2013: C5 Annual Meeting in South Africa

7. Participation to Regional Meetings, colloquia and symposia :

- a. In 2010 (passed)
 - i. None
- b. In 2011 and beyond (scheduled)



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- i. C5 colloquia in Sydney November 2011: *Drivers for Regulatory and Market Design Changes, Including the Market Disturbance Workshop*
- ii. The electric power system of the future - Integrating supergrids and microgrids, International Symposium Bologna (Italy); September 2011

8. Relations with other organisations

- a. Many of the C5 members are closely involved in other organizations as ENTSO-E, IEEE, UCTE, NERC, IEA and collect information from these
- b. Few of the members within C5 have so far come from the regulators despite the fact that Regulation is one of C5's major responsibilities. On purpose, some new members from the regulator were nominated in 2010.

9. Specific actions for the recruitment of young experts

- a. Focused on all SC meetings so all members and WG-conveners should know.
- b. Mentioned when recruitment is topic on other occasions

10. SC website : on-line contents and date of last update

- a. Updated frequently but has potential for further development and more active use.
- b. Maintenance is being done by the C5 Secretary, the C5 Chairman and by others as needed
- c. Last update March 2011

11. Miscellaneous

- a. Strong interest in:
 - i. Market incentives for renewable resources
 - ii. Interactions of different markets
 - iii. Regulatory effects on markets



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Appendix : allocation of Working Groups to the four TC strategic directions

Use the attached **SC WG list as in the TC records of February 2011**, that may be completed (lines may be added or removed).

Example of allocations

WG	Title of the WG	Strategic Directions*
A2-37	Transformer Reliability Survey	2
A3-28	Switching phenomena and testing requirements for UHV & EHV equipment	1
B1-31	Testing of super conducting cable systems	1
B2-41	Guide to the conversion of existing AC lines to DC operation	2 - 3
C3-10	Sustainable development performance indicators - Power generation	3
C6-20	Integration of electric vehicles in electric power systems	1 - 4

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