



Study Committee No C2

Working GROUP C2.16

No : WG C2.16	Name of Convener : Michael Power, Ireland	
TITLE of the WG : Challenges in the control centre (EMS) due to distributed Generation and Renewables		
<p>Background :</p> <p>The penetration of renewable and distributed generation has influenced all facets of power system planning and operation. Research work is ongoing in various fields to integrate Distributed Generation. From the perspective of system operation these generation sources bring uncertainty and another level of preparedness for the control room.</p> <p>The aim of this work is to analyse, survey and propose what types of organizational, tools and process changes will take place in the control centre environment.</p> <p>Scope :</p> <ul style="list-style-type: none">• Organisation changes, integration of distributed generation in control centre (EMS)• Security and energy balancing due to stochastic and dynamic/variable nature of DER/RES• Requirements for extra operating reserves - and means to provide these• Positioning of operator in CC for renewable operation (dedicated or joint work processes)• New applications and impact on classical EMS apps (AGC, Unit commitment)• Forecasting and operational planning• Infrastructure – computing and communication• Interaction between TSO and DSO• Analysis of the necessary regulatory framework <p>Deliverables :</p> <p>Report to be published as a technical brochure with summary in Electra</p> <p>Time schedule :</p> <p>Initiation of the WG January 2011 and deliverable January 2013</p> <p>The work will be divided into 4 phases: Phase 1 : Constitution of the WG and organisation of the work (January 2011 - March 2011) Phase 2 : Collection of information, survey and analysis Phase 3 : Interim Report March 2012 Phase 4 : Final report for publication January 2013</p>		
<p>Papers issued : see Deliverables</p> <p>Other SCs concerned: The forecasting and planning will be coordinated with AG2.02 to avoid overlap. Liaise with SC C6 (Distribution Systems and Dispersed Generation), WG “Network of the Future” and use the work of JWG C1/C2/C6 as reference.</p>		
Approval by TC Chairman:	Klaus Fröhlich	Date : __/Jan/2011