

CIGRE Study Committee C6, « Distribution Systems and Dispersed Generation »

PROPOSAL FOR CREATION OF A NEW WORKING GROUP *

WG* N° C6.15	Name of Convenor: Zbigniew Antoni Styczynski (Germany)
Title of the Group: Electric Energy Storage Systems	
Scope, deliverables and proposed time schedule of the group	
Background: <p>Because of the small storage capability of the power system a secure and reliable power system operation requires a dynamic balance between demand and generation at all time. Especially the renewable energy device generates the electric energy in accordance with the availability of wind, sun or other resources, independently of the demand. Hence, energy storage technologies become important with growing renewable generation also in order to have electric energy available when needed.</p> <p>Different energy storage technologies have individual characteristics, which will make it more suitable for specific environments and application scenarios. This working group will explore methods for evaluating scenarios of using storage technologies in an economic way, and ultimately the feasibility, of energy storage technologies.</p>	
Scope: <p>The objective of this working group is to evaluate different storage technologies and their commercial background, with special reference to support the integration in power systems of high penetration of dispersed generation and renewable based generation (DER/RES).</p> <p>For this reason representative scenarios of powers system networks with high penetration of uncertain generation will be established; the need of optimal storage capabilities and the relevant duties required will be analyzed and identified. The effect of wind power generation (off- and on-shore), PV-generations and also biomass CHPs will be taken into account as well as the operational issues of distribution networks integrating DER/RES.</p> <p>All existing and prospective energy storage technologies will be described; their technical and commercial characteristics will be included into a framework, from which the technical and economic benefit analysis can be performed for each selected scenario. As the central result of the investigations, recommendations for further development of the storage technologies will be given.</p> <p>The deliverable is a survey, which defines the current technological state and the needs for further development to reach economic benefits in the application of storage in the foreseen scenarios.</p>	
Deliverables: Technical brochure with summary in Electra	
Time Schedule: Begin: September 2007	Final report: 2009
Comments from Chairmen of Scs concerned : 	
Approval by Technical Committee Chairman: Klaus Fröhlich Date: 02/07/2007	