


**Distributed Renewable resources Exploitation in electric grids
through Advanced heterarchical Management**

	<i>Sensitivity analysis of local flexibilities for voltage regulation in unbalanced LV distribution system</i> 		
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ABSTRACT:

This paper introduces a voltage sensitivity analysis method in three-phase LV distribution system aiming to quantify the impact of local flexibilities activation for voltage regulation. This method aims to help the DSO to benefit of the flexibility available on a given LV network to solve voltage constraints.

A method based on the calculation of the inverse power flow Jacobian matrix is presented, in order to compute voltage sensitivity coefficients with respect to node power modulation in each phase. Benchmark and test results for a LV unbalanced distribution system are then displayed.