

# **Pilot-bus selection for secondary voltage control**

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## **Abstract-**

**The secondary voltage control determines control device actions based on reference voltage values set at certain load buses denominated pilot buses. A key factor for the appropriate functioning of secondary voltage control schemes is the selection of the pilot buses. This paper addresses this problem taking into account system-wide information, and different operating conditions regarding different load levels and different network topologies. The proposed approach improves previous approaches in two respects: the level of modelling detail and the computational efficiency. Two case studies based respectively on the IEEE 118-bus system and the New England 39-bus system are provided.**

## **Index Terms-**

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