

Distributed generation and distribution pricing: why do we need new tariff design methodologies?

A. Picciariello, J. Reneses, P. Frías, L. Söder

Abstract— Due to the increasing amount of DG (distributed generation) in distribution grids, new challenges are arising in the distribution sector in many countries. Depending on the DG penetration, location, concentration, size and generation technology, the DG impact on network costs can be either negative or positive. These additional costs or benefits can be allocated to the DG owners through network tariffs. New cost allocation methodologies, based on a cost causation principle, are therefore required.

This paper addresses several issues arising within network tariff design due to the integration of DG. Furthermore, it reviews the methodologies proposed so far to tackle those issues. Recommendations for setting up a new, cost causation-based, methodology are finally drawn.

Index Terms— Distributed generation; Distribution tariffs; Cost allocation methodologies; Net Metering; Cost Causality Principle; Innovative Tariffs

Due to copyright restriction we cannot distribute this content on the web. However, clicking on the next link, authors will be able to distribute to you the full version of the paper:

[Request full paper to the authors](#)

If your institution has an electronic subscription to Electric Power Systems Research, you can download the paper from the journal website:

[Access to the Journal website](#)

Citation:

Picciariello, A.; Reneses, J.; Frías, P.; Söder, L.; "Distributed generation and distribution pricing: why do we need new tariff design methodologies?", Electric Power Systems Research, vol.119, no., pp.370-376. February, 2015.