

## عنوان مقاله:

Optimal Contract Pricing for Private DG-Owners via Bilevel Programming

## محل انتشار:

بیست و هشتمین کنفرانس بین المللی برق (سال: 1392)

تعداد صفحات اصل مقاله: 6

## نویسندگان:

Morteza Shabanzadeh - *Economics & Power Management Department Niroo Research Institute (NRI) Tehran, Iran*

Farhad Fallahi - *Economics & Power Management Department Niroo Research Institute (NRI) Tehran, Iran*

Somayeh Rahimi - *Economics & Power Management Department Niroo Research Institute (NRI) Tehran, Iran*

## خلاصه مقاله:

In Restructured power systems, the investment of small-scale distributed generation owners (DGOs) who are mostly from private sectors could have significant benefits for the individual distribution network operators (DNOs). However, the DGOs have different aims which might be contrary to the objectives of DNO. A bilevel programming approach for the optimal contract pricing of non-dispatchable distributed generation units (DGs) is presented. This paper proposes an iterative algorithm to solve this bilevel problem in order to encourage private DGOs for DG installation in parallel with the technical and economical goals of DNO. It also takes into account some scenarios to address the uncertainty of demand as well as electricity prices. Demands through the distribution network for the target year are characterized by stepwise constant load duration curves (LDCs). To meet the demand, the DNO has the option to purchase energy from any DG unit within its network and directly from the wholesale electricity market. Application example is presented to demonstrate the effectiveness of the proposed methodology

## کلمات کلیدی:

Distributed Generation; DNO; Contract Pricing; Bilevel Programming; Electricity Market; Iterative Algorithm

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/250037>

