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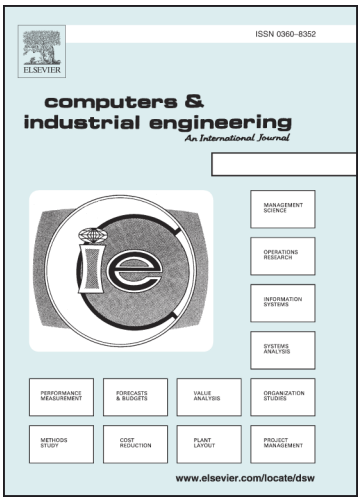

The economics of distributed power: a Marcellus Shale case study

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The economics of distributed power: a Marcellus Shale case study

The economics of distributed power: a Marcellus Shale case study

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Abstract

We study the economics of a small natural gas powered electricity generation unit that is part of a distributed power system and is also located near a gas well, while supplying electricity to local dedicated customers. Beyond the environmental and social benefits from localizing production and usage, economic benefits accrue to (1) the gas producer, from selling close to the source and saving costs associated with gas transportation, (2) the electricity producer, from cheaper fuel and higher margins in the electricity they sell behind the meter, and (3) to the final consumer, in the form of electricity prices that are lower than the retail grid price, with little or no distribution costs. We study this arrangement using an actual distributed power generation unit along with

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