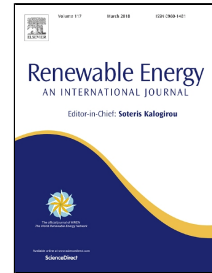


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Optimum inverter sizing of grid-connected photovoltaic systems based on energetic and economic considerations

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## Highlights

- An optimum sizing ratio interval benefiting in both energy and economy is proposed
- The clipping effect of undersized inverter is interpreted
- An accurate inverter efficiency model is used and assessed
- Inverter characteristics affected AC output more than sizing ratio
- 1% degradation rate and 20-year lifetime lead to a 10% rise of optimum sizing ratio

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