

Discussion on

Dead on arrival? Implicit stranded assets in leading IAM scenarios

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Scenarios for wind-solar energy mix in Italy from 2 regional climate simulations

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Wind-solar scenarios for Italian power system

- Assessment of optimal trade-off of wind and solar penetration rate at both national and regional level applying Markowitz optimal portfolio theory and multi-criteria decision-making procedure.
 - Criteria include mean and variance penetration rate (national and regional) and expected profit over the 24 years of the simulation
 - Carefull modelisation of the wind random field and solar radiation is performed
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- The mean-variance criterion vs other established optimization mix in power system economics

Stranded electricity generation assets

- Develops a model-free methodology to assess the level of underused generation asset in climate change scenarios
- Defines stranding as the historical observed minimal utilisation rate minus the utilisation rate in a given scenario
- Finds for instance that EU is expecting 650 billion € of coal-fired asset depreciation

- Methodology simple and effective
- Units
- Illustrations