Implementing Load Follow Capability in Residential Solar Photovoltaic Power Arrays

Two-stage converter for active and reactive power control

Active and reactive power control at constant insolation level

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Funding Source: Ameren Services

Project Description:
Photovoltaic (PV) power plants pose some challenges when integrated with the power grid. PV plants always focus on extracting the maximum power from the arrays. This makes the PV system unavailable for helping in regulating the grid frequency as compared to conventional generators. The objective of this project is to develop inverter control methods which allows the system to follow load variations and thus provide frequency regulation functionality to PV systems.

Publications: