



# Solar Photovoltaic Interconnection Requirements 太阳能光伏发电互联要求

**Emerging United States Regulation for large  
generators**

对美国大型发电机组的新规定

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## Categories of Generation in the US 美国电源的分类

- **Large Generators**大型发电机组:
  - Those above 20 MVA. Considered “bulk” or wholesale power. Primarily regulated by federal agencies.  
容量超过20MVA。认为是“大型”或趸售电力。主要由联邦机构管理。
  - Typically have more stringent interconnection requirements than smaller generators  
互联要求通常比小机组严格。
- **Small wholesale generator** 小型趸售机组:  
Less than 20 MVA. 容量小于20MVA。
- **Distributed Generation Resource**分布式电源:
  - Typically less than 1 MVA, located at the customer site.  
通常小于1MVA，位于用户端。

## Emerging Requirements for Large Solar PV 对大型太阳能光伏发电的新兴要求

- Similar to requirements for Wind.  
类似于对风电的要求
  - Power Factor: From 0.95 leading to 0.95 lagging  
功率因数：从超前0.95到滞后0.95
  - Dynamic Voltage Support 动态电压支撑
  - Low Voltage Ride Through 低电压穿越
  - Frequency Ride Through 频率穿越
  - SCADA/EMS Integration SCADA/EMS集成
  - Ramp Rate Requirements 爬坡率要求

## Current Status and Links 现状和链接

- NERC Proposed Standard  
NERC 提出的标准
  - [http://www.nerc.com/docs/standards/sar/PRC-024-1\\_Draft1\\_2009Feb17.pdf](http://www.nerc.com/docs/standards/sar/PRC-024-1_Draft1_2009Feb17.pdf)
- CA ISO (California Grid Operator) proposed many of these regulatory changes, FERC (Federal) did not approve all changes  
CAISO(加利福尼亚电网运行商)提出了很多规章修改，FERC并没有批准所有的修改
  - <http://www.caiso.com/27da/27daa6094ec80.html>