



GUAM POWER AUTHORITY



Energy Act of 2005 — Implications to GPA

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R·W·BECK

Mind Powered: Insight with Impact.

Energy Act of 2005 and PURPA Standards

- The Conservation Standards of PURPA-1978 were expanded in the Energy Act of 2005 to include:
 - Net Metering
 - Fuel Diversity
 - Fossil Fuel Generation Efficiency
 - Smart Metering
 - Interconnection
- The no longer relevant issues of Qualifying Facilities and Avoided Costs are not addressed

Requirements and Implementation of the Conservation Standards

- Electric utilities are required to consider each standard and make a determination whether or not it is appropriate to implement
- Implementation is, however, discretionary
- The Guam PUC must also “consider and determine” the conservation standards
- Typically a public process is involved in the utility’s determination process

Net Metering

- Has been adopted by law or regulation in a number of states
- Typically applies to distributed generation of less than 50 or 100 kW (*not MWs*)
- Is an important policy step in encouraging small renewable installations
- Is a cornerstone to California's goal of 1,000s of MWs of distributed solar over the next 10 years

Fuel Diversity

- First need to develop a plan to minimize dependence on just one fuel source
- There is a diverse range of fuels and technologies available, including renewable technologies
- Development of the IRP is one of GPA's steps in reaching this goal

Fossil Fuel Generation Efficiency

- Recommended approach is to develop and implement a ten-year plan that increases the efficiency of fossil fuel generation
- Again, an IRP is one of the key elements in developing a plan (example: repowering options)
- Other plant-by-plant efficiency investments need to be considered
- Any approach or plan needs to follow regulatory guidelines

Smart Metering

- Automated Meter Reading and Automated Meter Information
- An evolving and expensive technology
- Time of Use Rates – Demand Response
- Requires extensive analysis to determine if “Smart Metering” is overall economic and could be implemented
- Requires regulatory coverage of up-front investment and operating expenses

Interconnection

- Requires utilities to offer interconnections to distributed generation sources
- Primarily oriented to distribution generation (less than 100 kW)
- Uses standards developed by the Institute of Electrical and Electronics Engineers: IEEE Standard 1547 for Interconnecting Distributed Resources with Electric Power Systems --- *SAFETY IS ALSO A KEY ISSUE*
- Interconnection rules for larger generation are provided in FERC regulations

The IRP Process and Other Activities

- Fuel Diversity Plan
- Resource Diversity Plan
- Demand Response Strategies
 - TOU as an example
 - Distributed Generation
- Public process and hearings on Net Metering, Smart Metering and interconnection implementation