

MADRI ENVIRONMENTAL SUBGROUP
RECOMMENDATION TO THE STEERING COMMITTEE
REGARDING THE ENVIRONMENTAL REGULATION OF DISTRIBUTED GENERATION

15 November 2005

The Environmental Subgroup of the Mid-Atlantic Distributed Resources Initiative recommends that the MADRI Steering Committee adopt the following *Statement of Principles Regarding the Environmental Regulation of Distributed Generation*. The Statement, which acknowledges that the environmental regulation of smaller-scale generation facilities lies wholly within the jurisdiction of individual states, describes those features of state environmental regulations that, the Subgroup believes, in combination promote both improved air quality and increased deployment of clean, reliable distributed resources.

MID-ATLANTIC DISTRIBUTED RESOURCES INITIATIVE

STATEMENT OF PRINCIPLES

GOVERNING THE ENVIRONMENTAL REGULATION OF DISTRIBUTED GENERATION

November 2005

Increased use of clean distributed generation has the potential to decrease harmful air emissions from the power sector within the MADRI region, increase reliability of the PJM power grid, and reduce the market prices of power in the region. Attainment of these benefits depends, in part, upon the adoption of state environmental regulations that set rigorous, achievable standards for DG emissions while simultaneously reducing the institutional and infrastructure barriers to cost-effective deployment of those distributed power systems.

MADRI has reviewed state DG emissions rules (in effect and proposed) and related literature, and has identified those regulatory provisions that, in combination, produce rules that serve these broad objectives.¹ The general features of those provisions are distilled in the principles enumerated below. MADRI encourages all states within the region, as they develop new rules or update existing ones, to consider adopting regulations that are consistent with these principles—put simply, that state environmental regulators apply rigorous, fuel and technology-neutral, output-based environmental performance standards to smaller-scale distributed electric generators not currently covered under state or federal regulations. By moving towards a consistent regional

¹ In particular, MADRI looked at the DG emissions rules recently adopted in Texas, California, Maine, Massachusetts, and Connecticut, as well as those under consideration in Delaware and Rhode Island. The rules of the New England states and Delaware are based in varying degrees on a model rule developed through a national stakeholder process funded by the National Renewable Energy Laboratory (see *Model Regulations for the Output of Specified Air Emissions from Smaller-Scale Electric Generation Resources*, 31 October 2002 Review Draft, www.raonline.org).

regulatory framework built on these principles, new development of clean DG will be accelerated, providing the environmental, reliability, and cost benefits noted above.

Applicability

DG emissions regulations should apply to all new and existing, stationary, emergency and non-emergency, generating facilities not already covered under federal major source regulation.

Emissions Regulated

The air pollutants to be regulated should include nitrogen oxides, sulfur dioxide, particulates, and carbon monoxide, as needed for air quality. Volatile organic compounds, toxics, and carbon dioxide may also be regulated.

Form of Emissions Standards

Emissions requirements should be in the form of output-based performance standards (e.g., pounds per megawatt-hour, and accounting for energy output in all forms including thermal and mechanical), applicable to all facilities regardless of technology or fuel. Regulations set in this manner reward innovation and efficiency in generation technology. The standards should, however, be differentiated between new and existing facilities and between emergency and non-emergency facilities. The standards should be phased in, to provide time to accommodate manufacturers' research and development cycles.

Certification of Compliance

In order to facilitate siting and deployment, regulations should include provisions that give manufacturers the option to meet the standard through pre-certification of the emissions output of their products. Pre-certification, and the testing that underpins it, should be designed to assure that equipment so certified will be highly likely to meet the applicable emissions standards throughout their expected lifetimes.

Credits for Concurrent Emissions Reductions

Generation that is fired by gases that otherwise would have been burned off or emitted directly into the atmosphere (i.e., landfill and other waste gases) should be able, upon demonstration, to claim an offset to their own emissions of the emissions avoided.

Rules in several states outside the region allow for the operation of certain customer-sited emergency generators (i.e., generators that are not permitted for non-emergency use and whose emissions are uncontrolled) during times of system capacity deficiencies, prior to, and with the aim of avoiding, actual blackouts.² MADRI encourages its participating states to consider, upon development by PJM of well-defined protocols for the use of

² Connecticut and Massachusetts are two states that have such rules. Rhode Island is also considering one.

such generators, whether to adopt provisions that would permit limited operations of emergency generators during capacity deficiencies.³

³ "Capacity deficiency" is a term of art defined in the operating protocols of the system operator. Some MADRI participants believe that, for the purposes of a state environmental rule satisfying this principle, a capacity deficiency should be deemed to occur only when, after a series of all other, less drastic remedial measures intended to address real-time reliability needs have been taken, voltage reductions are next to be initiated.