

Distributed Generation: Policy Objectives vs. Economic Efficiency?

Harvard Electricity Policy Group
Harvard Kennedy School
Cambridge, MA
October 12, 2012

Ashley C. Brown

Executive Director, Harvard Electricity Policy Group
Harvard Kennedy School
Harvard University

Of Counsel, Greenberg Traurig LLP

Rationale for Distributed Generation

Economic Rationale

- a. Energy Efficiency (Steam Hosts, CFP, etc.)
- b. Locational Benefits (e.g. Relieve Congestion, Facilitate Demand Response)

Externality Rationale

- a. Clean Energy (Reduce Carbon Emissions)
 - What differentiates DF from other forms of Renewables?

Defining the Generating Entity

1. Single Location
2. Virtual Location (Allocation of Credits in Multi-Unit Locations)
3. Aggregation of Multiple Locations
4. Size Differentiation

Pricing Options for Distributed Generation

1. Feed In Tariffs
 - a. Published Purchase Price
 - b. Often results in Caps (e.g. First Come, First Served)
 - Admission of uneconomic price?
2. Net Metering
 - a. Dumb Meter Driven
 - b. Smart Meter Options
3. Avoided Costs
4. Price Tied to Utility Unbundled Generation Price

Dynamic or Static Pricing

1. Self Consumption = Self Defining
2. Payments Based on Real Time Energy Price (Linked to Regional Market Prices)
3. Averaging and Carry Over Credits
4. Implications for Evolution of More Efficient Storage Technology

Overlap Between Carbon Controls and DG as Part of Renewable Preference

1. Mixed Signal on Technology Advances
 - a. Implicit Technology Preference

2. Inefficient or Unneeded Subsidies