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Measuring Energy Use from Generation to Consumption Is the Best Method for Determining Efficiency and Environmental Impact, New Study Finds

Washington, D.C. – The "Real Energy" analysis method, measuring the amount of energy produced and lost from the point of generation to the final point of consumption, provides the best guide to choosing the most efficient use of energy, according to a new study, "*Public Policy and Real Energy Efficiency,*" released here today. The study compared three methods of determining energy efficiency and was conducted by Gard Analytics of Park Ridge, III. on behalf of the American Gas Foundation (AGF).

The "Public Policy and Real Energy Efficiency" study found that "Real Energy" measurement, which measures energy gains and losses through the entire energy cycle to determine energy efficiency, is the measurement method most consistent with federal and state policies meant to encourage energy resource conservation and environmental protection. According to "Public Policy and Real Energy Efficiency," the "Site Energy" measurement method used by most government programs leads to well-intentioned but ill-informed energy decisions, increased amounts of wasted resources and even increased pollution. The Site Energy measurement method ignores the considerable amount of energy required to generate and transport energy from the point of origin, such as the natural gas wellhead or electric power plant, and instead only measures energy consumed at the point of use, typically the water heater or the furnace or boiler.

A third form of measurement is "Energy Cost" analysis, which hinges on the amount paid by the consumer for using energy. According to *"Public Policy and Real Energy Efficiency,"* Energy Cost analysis is based on the often-false market assumption that higher energy expenses are associated with larger volumes of wasted energy, however that is not always the case. Energy Cost analysis further ignores the environmental costs associated with energy use, the study found.

"Decision makers should be informed about the *total* amount of energy that is generated, lost and consumed over the energy cycle when analyzing the efficiency and environmental impact of different energy forms," said AGF Trustee Wm. Michael Warren, who also is chairman, president and CEO of Energen Corp. of Birmingham, Ala. "In order to make the best-informed decisions about energy choices, efficiency and environmental impact, analysts should use Real Energy measurement," he said. The study provides estimates of the potential benefits of using Real Energy analysis, identifies possible market share distortions that result from site energy efficiency measurement, and acknowledges that market shifts could result from utilizing the Real Energy approach. The study also notes barriers to implementing the real energy efficiency approach and identifies candidate federal programs that would benefit from the Real Energy approach

Warren said the recently-enacted Energy Policy Act of 2005 includes a provision requiring the National Academy of Sciences (NAS) to "examine whether the goals of energy efficiency standards are best served by measurement of energy consumed, and efficiency improvements, at the actual site of energy consumption, or through the full fuel cycle, beginning at the source of energy production." *(Section 1802)* The AGF study provides an independent, comprehensive overview of current energy efficiency measurement and policy issues, as well as a solid reference point for the NAS study.

The executive summary, full text, and appendices of the *Public Policy and Real Energy Efficiency* study can be downloaded from <u>www.gasfoundation.org</u>. For a hard copy, call Kelly Batte at (202) 824-7026.

Founded in 1989, the American Gas Foundation is a 501(c)(3) organization that focuses on being an independent source of information research and programs on energy and environmental issues that affect public policy, with a particular emphasis on natural gas. Overseen by a Board of Trustees composed of executives from the natural gas industry, the AGF has developed several public policy reports. In 2005, AGF issued the *Natural Gas Outlook to 2020* and *Safety Performance and Integrity of the Natural Gas Distribution Infrastructure* studies. www.gasfoundation.org

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