Renewable Energy: A Policy Perspective

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Interest in renewable energy technologies has intensified in the United States, and around the world, as a result of heightened concerns about climate change and energy security, stemming from rising demand and uncertain future supplies.

Governments at all levels have enacted policies and launched initiatives designed to accelerate the development of renewable energy resources. Most policies purposefully work within existing energy markets to promote renewables.

Renewable energy in fact represents a diverse set of resources and technologies that are in different stages of maturity and deployment, and policy instruments must take those differences into account.

Renewable energy is derived from resources that are generally not depleted by human use, such as the sun, wind and movement of water. These primary sources of energy can be converted into heat, electricity, and mechanical energy in a number of ways.

There are some mature technologies for conversion of renewable energy such as hydropower, biomass and residues/wastes. Other conversion technologies, such as wind turbines and photovoltaics, are well understood, but they do not yet have the efficiency or market penetration they will ultimately achieve. Although geothermal energy is produced from geological sources that decline over the years, it is most often considered a renewable energy resource.

Despite fluctuating government policies since the 1970s, a combination of incentives and high energy prices has enabled wind energy to gain a growing presence in electric power markets.

Additional information will be mailed to the Board.