

Summary: Evaluating Liquefied Natural Gas (LNG) Options for the State of Hawaii

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The objective of this study is to enhance the general level of understanding about the global LNG market and to clearly identify the strengths and limitations of LNG as a future fuel source for Hawaii. LNG would provide clear benefits for the State in terms of energy diversification and the environment, as well as serving as a possible bridge to a hydrogen economy, but it could be disruptive to the current energy balance. The topics discussed include: recent developments in LNG markets, such as trends in pricing and contract terms and the growth of short term trading; the outlook for small markets (similar to Hawaii's); technological developments, environmental and safety concerns, and the possibility that LNG could serve as a bridge to a hydrogen economy. The study concludes with an examination of the possible impact of LNG on the State's energy sector as well as the overall economy.

This study is currently in progress, but some key findings include:

- The global and regional LNG markets have undergone a dramatic transformation in recent years. Technological developments and a number of new supply sources have transformed into a buyer's market, and prices have dropped considerably versus the 1990s. LNG prices would likely be competitive with fuel oil, which is currently primary fuel used in power generation in Hawaii.
- In contrast to popular perception, LNG is a relatively low risk fuel which has an exemplary safety record.
- LNG may be sourced from relatively stable countries, including Australia and Malaysia, and as such it provides a means to relatively quickly reduce the State's dependence on oil. In the long term LNG could serve as a bridge to a hydrogen economy.

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- LNG has clear environmental benefits in terms of reducing localized and global pollution.
- The downside of LNG is that it may disrupt the State's existing energy balance—there is a possibility that the displacement of fuel oil in power generation could lead to the closure of one of the State's refineries. The study explores the economic impact of such a closure.