



LNG: Environmental Considerations

A brief look into some environmental considerations when establishing an LNG project or facility.

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Natural gas produces CO₂, NO_x, sulphur, mercury, and particulates during combustion. LNG, in particular, has significantly lower emissions when compared to its gas form, which enhances its attractiveness for use in terms of obtaining environmental permits and reducing the effect of global warming. When looking to establish an LNG facility, there are a few points that can be considered in the early stage of the project life, to ensure successful project execution and preparation when the EIA is to be carried out.

1 The first step in any environmental assessment is to consider the option of not undertaking the project. However, the project can be largely justified through the demand for LNG in the proposed area-, short- and long-term advantages on availability of LNG to local end users and long-term impact on reducing emissions.

2 Alternative LNG technologies should be considered during the assess phase study. Unit operations of the LNG facility should be chosen such that the emissions and footprint are minimal. This leaves room for innovation during the engineering design and operation of the units required in an LNG facility.

3 In the project development phase, multiple locations are considered. To have a minimal impact on the environment, a location can be chosen that is nearby end users and the source (pipeline, port, unloading facility, etc.), nearby existing infrastructure to reduce construction impact, has a moderate climate and is sparsely populated.

4 Allowance must be made for safety in and around the LNG module or facility, such that any leaks will be adequately dealt with and have minimum impact on the environment. That is, methane leaks can be detected using gas monitors and fire prevention methods must be in place in case of combustion. LNG spills can be contained in tanks.

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