



## Lifecycle Greenhouse Gas Emissions of LNG vs. Coal

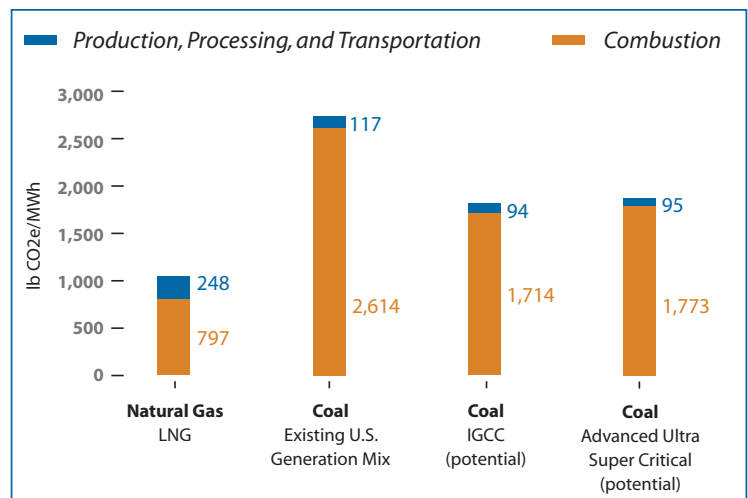
As U.S. demand for electricity rises, so does scrutiny of greenhouse gas emissions from fossil fuels that provide the energy that generates most of our electricity — coal and natural gas. With America’s growing need for liquefied natural gas (LNG) to supplement our nation’s natural gas supply, the Center for Liquefied Natural Gas (CLNG) sponsored an independent analysis to quantify the greenhouse gas emissions released throughout the lifecycle of electricity production — from fuel extraction to power plant production.

### ANALYSIS

*For a transparent “apples to apples” comparison of the lifecycle greenhouse gas emissions attributable to LNG and coal, a representative average of typical U.S. LNG and coal operations is presented.*

#### Scope and Boundaries

- **Natural gas:** supplied by Liquefied Natural Gas
- **Domestic coal:** current U.S. coal fired power plant
- **Domestic coal:** advanced ultra supercritical coal (SCPC) power plant, high efficiency (not yet commercially viable in U.S.)
- **Domestic coal:** integrated gasification combined cycle (IGCC) coal fired power plant (not yet commercially viable in U.S.)



### CONCLUSION

- Existing domestic coal power plants produce two and a half times more emissions on a lifecycle basis than that of LNG
- Even the cleanest coal technologies were found to produce 70% more lifecycle emissions than LNG
- End-use fuel combustion produces the large majority of the total lifecycle greenhouse gas emissions for all cases
- Emissions from extraction, processing and transportation are minimal in comparison to end use combustion for all cases

*For a copy of the complete study, visit the Center for Liquefied Natural Gas website at [www.lngfacts.org](http://www.lngfacts.org)*

