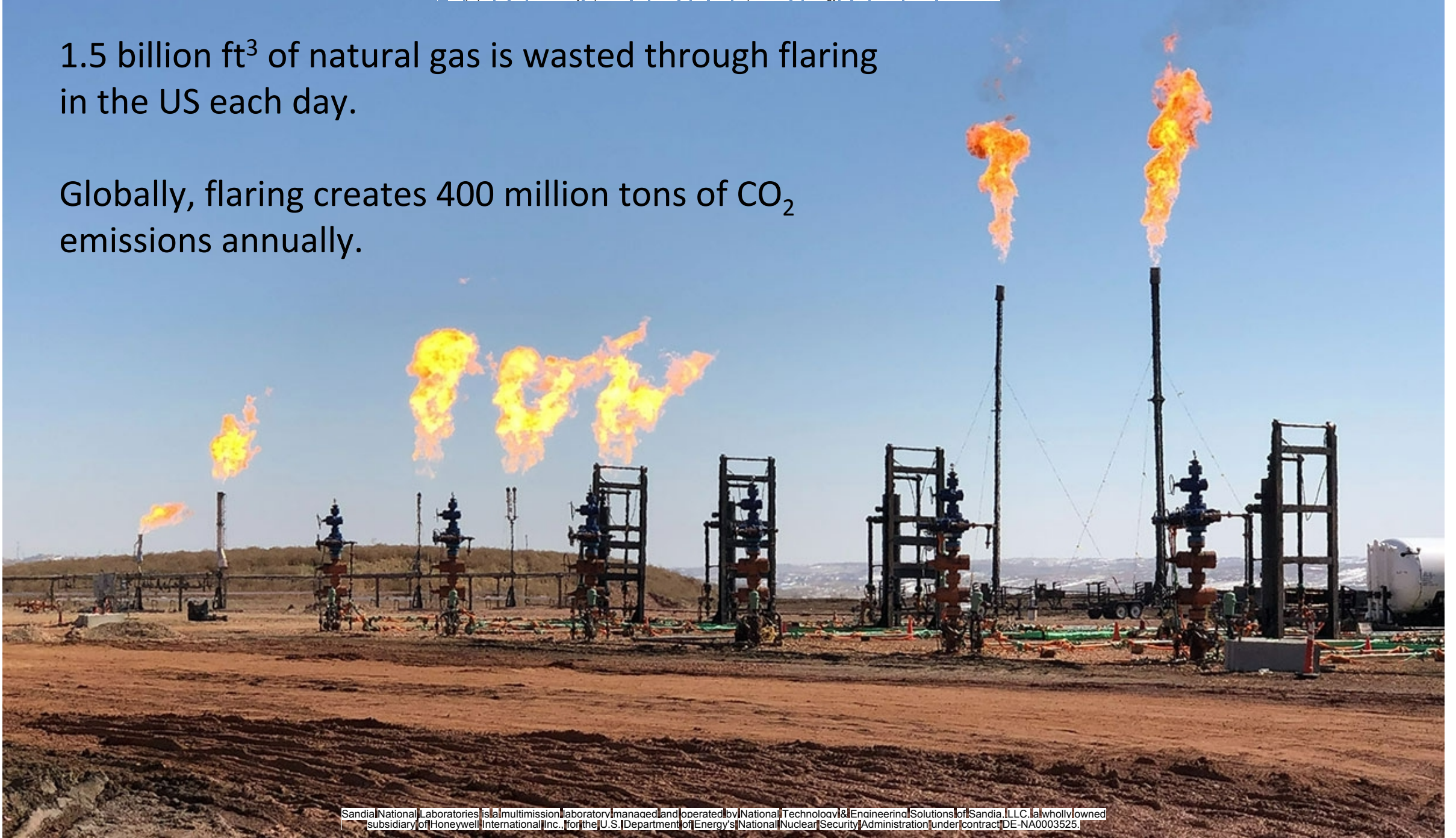
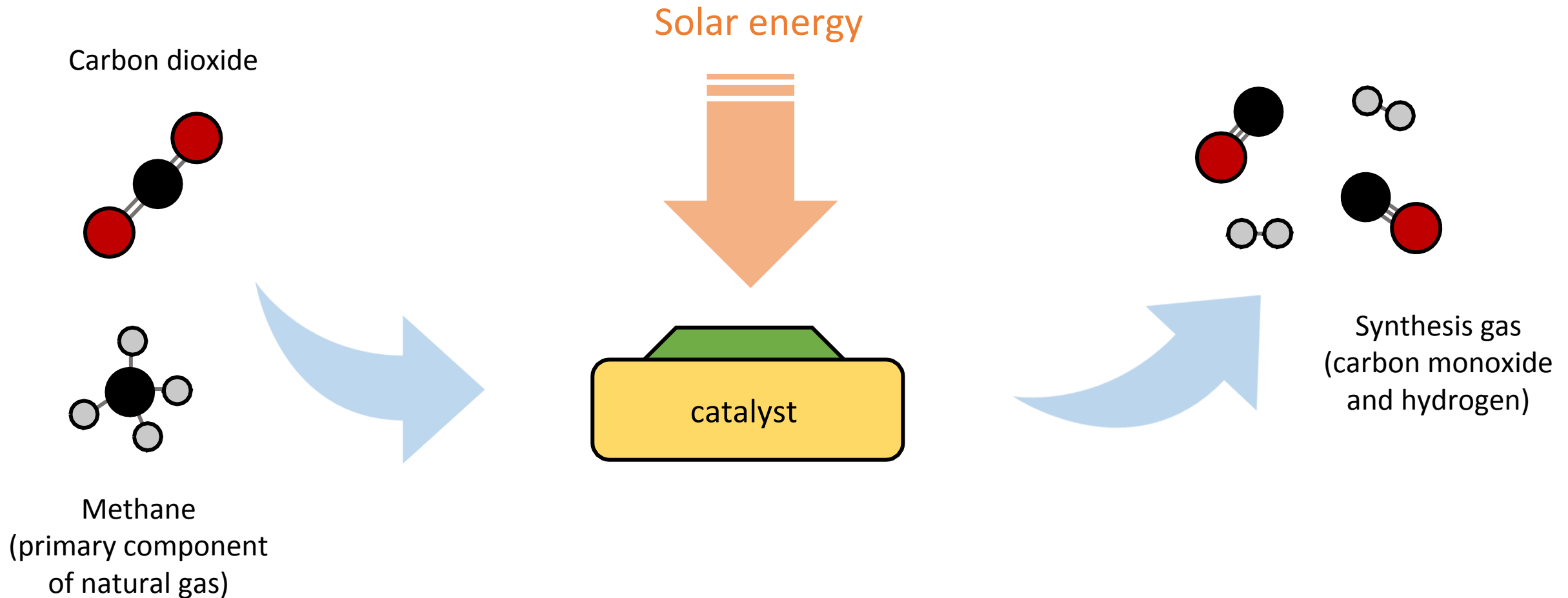


1.5 billion ft³ of natural gas is wasted through flaring in the US each day.

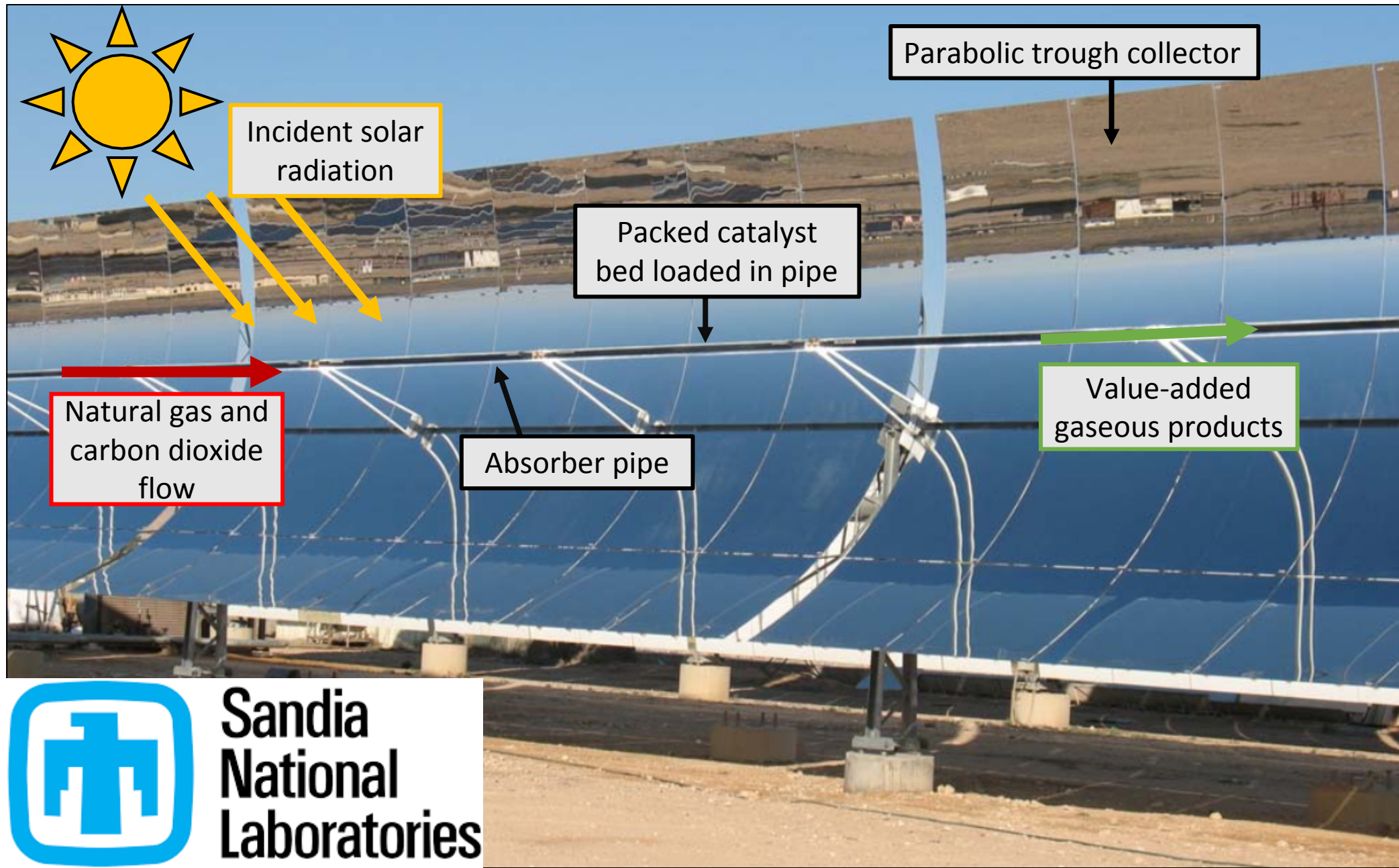
Globally, flaring creates 400 million tons of CO₂ emissions annually.



The solar thermal dry reforming of methane reaction provides a path to valorize under-utilized methane



Proposed reactor design for decentralized natural gas upgrading



Concentrating solar light equipment at Sandia's National Solar Thermal Test Facility (NSTTF) used in proof-of-concept experiments

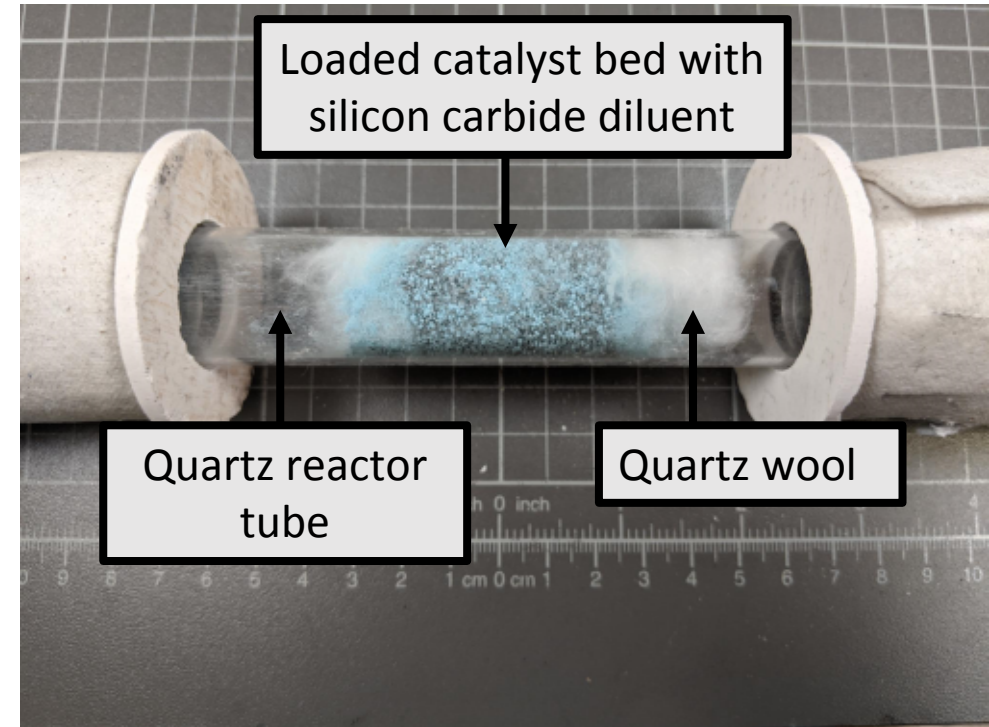


Prototype Solar Dry Reforming Reactor

Methane and
carbon dioxide
feed gas

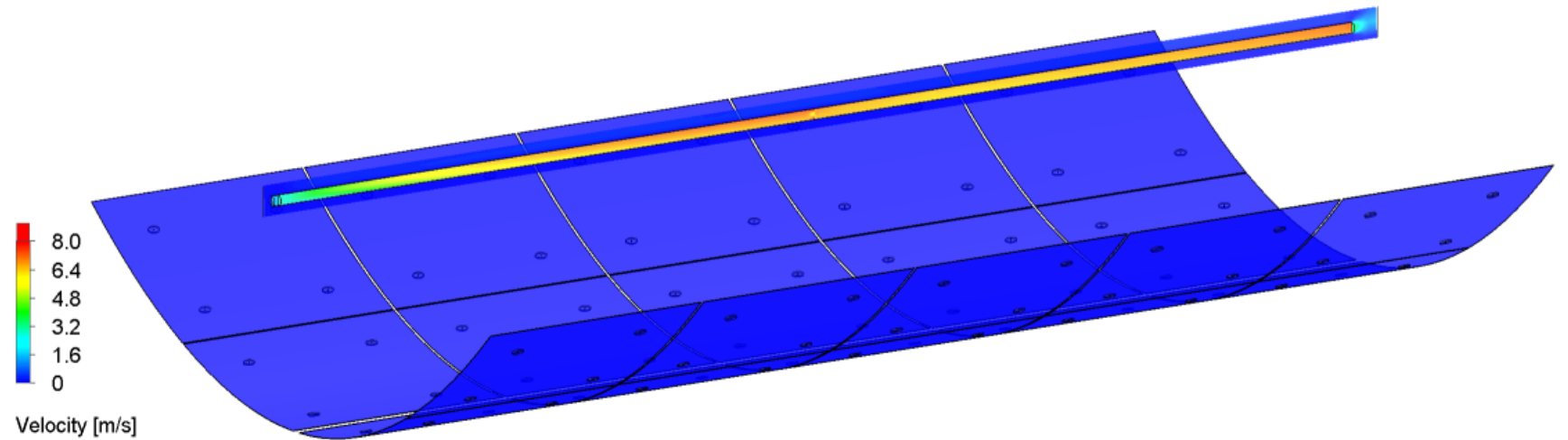
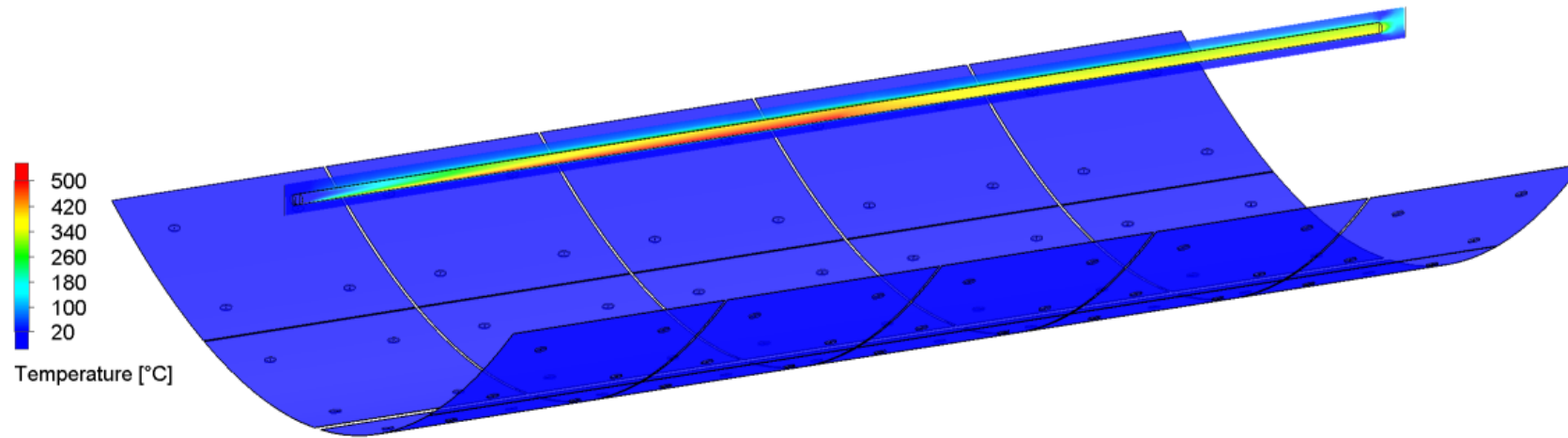
Quartz tube reactor

Synthesis gas
product



Sandia
National
Laboratories

Initial temperature and flow rate simulations for solar thermal trough reactors



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