

# OTEC Technology Workshop Platform Group

Session 1 Report-Out:

What are the state of the art  
technologies for the platform?

# Available Platform Technologies

- Assumptions:
  - 100 MWe Commercial OTEC
  - Offshore
  - Open or Closed Cycle
  - Maximum payload/weight = 10,000 tons
  - All weather conditions
  - Moored platforms
- Options:
  - Ship Shape
  - Spar
  - Semi-submersible including Tension Leg Platform

# Summary of Technology Options

<b>TYPE</b>	<b>MOTION/ SURVIVABILITY RISK</b>	<b>ARRANGEMENT DIFFICULTY</b>	<b>COST</b>	<b>TECHNICAL MATURITY</b>
<b>SEMI- SUBMERSIBLE</b>	<b>SMALL</b>	<b>MEDIUM</b>	<b>MEDIUM</b>	<b>HIGH</b>
<b>SPAR</b>	<b>SMALL</b>	<b>HIGH</b>	<b>MEDIUM-HIGH</b>	<b>MEDIUM</b>
<b>SHIP SHAPE</b>	<b>MEDIUM</b>	<b>LOW</b>	<b>LOW</b>	<b>HIGH</b>

NOTE 1: Estimated Technology Readiness Level is 9 for all options for an oil rig/floating platform

2: None of these have been done for a 100 MWe (or smaller) OTEC system (OTEC configuration for Spar technology likely to be the most difficult relative to oil rig configurations)

3: Offshore oil rig requirements far exceed the requirements for OTEC

# Semi-Submersible Used for Oil and Gas Drilling



# Ship Shape



# “Red Hawk” Spar Platform

