

Platform Mooring

Session 1

- Mooring technology is mature and has been demonstrated in more challenging and demanding environments, it's a matter of detailing and optimization to make it economic and viable in the environment for which it's deployed.
- Key driver that will affect the evolution of OTEC mooring systems is cost.

Components

- Anchors/Piles
- Mooring Lines
- Hardware/terminations
- Integrity monitoring instrumentation
- Service and inspection
- Installation equipment/vessels
- Codes and standards
- Demobilization/recovery/restoration
- Analysis modeling tools
- Test requirements
- Met ocean data and site survey
- Geotechnical site survey
- Staging area/facilities and support facilities and proximity
- Mooring design
- Single point mooring
- What is the life requirement for the demonstration system?
- Permitting

Technical Advances

- Mooring technology has developed significantly since OTEC 1 based on offshore oil advances
 - Deeper water moorings
 - Materials
 - Analysis tools
 - Maintenance systems
 - Installation and positioning capabilities

Assumptions

- The OTEC platform is not significantly different than systems that exist today.
- A compliant mooring system will not affect the surface motion and wave frequency response of the platform.

Questions

- What are the differences between conventional oil platform requirements and those of OTEC plants?
- Can a single point mooring be considered?
- What type of structure is best for OTEC? Relates to what type of mooring is appropriate.
- How is the platform coupled to the pipe and is there any direct interaction with the cable and what about disconnection?
- Do you require additional safety factor for moorings depending on OTEC production methods?

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