

Shipboard Fuel Cell – Biofuel

Introduction:

This program will demonstrate a shipboard fuel cell power generation demonstrator suitable for ship loads. The unit will operate with bio-fuel and will consist of a fuel processor to convert fuel into a hydrogen rich stream and a series of fuel cell stacks to produce power. These generators exhibit favorable characteristics for distributed ship power such as quiet operation, high efficiency, reduced emissions, and low air flow as compared to existing power generation technology.

Workshop Objective:

- Update Navy, Military Sealift, and Maritime communities on technical status of fuel cell development applicable to shipboard fuel cells
- Identify key opportunities for shipboard fuel cell power generation systems and prioritize associated system characteristics needed for transition

Time	Title	Presenter
0900	Set Goals for The Workshop	ONR (Dr Rich Carlin) DOE (Sunita Satyapal)
0930	Fuel Cell System 101	ONR (Don Hoffman)
1000	Fuel Cell Commercial Outlook	DOE (Pete Devlin)
1015	Fuel Cell Maritime Outlook	ASN R&D (John Amy)
1030	Break	
1045	Biofuel Update	ONR (Sharon Beermann-Curtin)
	Technology Overview	
1100	Advanced Fuel Cell Reformer Development	Precision Combustion Inc (Subir Roychoudhury)
1130	UTC Power Status Update	UTC Power (Mike Short)

1200	Lunch	
	Lunch Brief - FuelCell Energy Status Update	FuelCell Energy (Frank Wolak)
1230	PNNL SOFC Power Systems Update	PNNL (Larry Chick)
1300	PEM Stack update	DOE (Dimitrios Papageorgopoulos)
1330	System Design <ul style="list-style-type: none"> • Ship Service Fuel Cell Program Lessons Learned • System Generic Concepts (PEM, HT PEM, MCFC, SOFC) • Shipboard Fuel Cell Characteristics & Impacts 	ONR (Don Hoffman)
1400	Break	
1415	Open Discussion <ul style="list-style-type: none"> • Shipboard Power Needs • Shipboard Fuel Cell Characteristic Prioritization • Technology Assessment 	Facilitator (Bryan Pai)
1730	Wrap Up & Final Words	ONR (Dr Rich Carlin)
1800	End of Workshop	

Workshop Output:

- Preliminary list of shipboard fuel cell characteristic prioritization and transition opportunities

Post Workshop Output:

- Review and update lists of shipboard fuel cell characteristic prioritization and transition opportunities from supplemental submission from attendees