



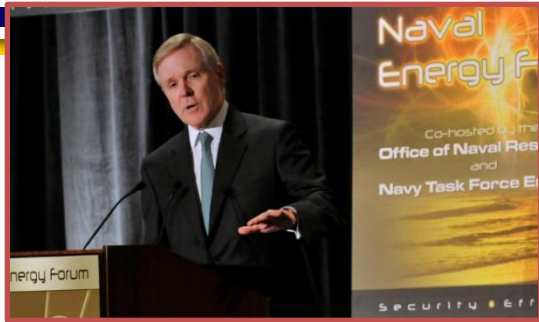
DEPARTMENT OF THE NAVY ENERGY PROGRAM



***Chris Tindal
Director for Operational Energy
Deputy Assistant Secretary of the Navy for Energy***



Department of Navy Energy Goals



**Increase Alternative Energy
Department-wide**

By 2020, 50% of total Department energy consumption will come from alternative sources

**Increase Alternative Energy
Sources Ashore**

By 2020, at least 50% of shore-based energy requirements will be met by alternative sources; 50% of Department installations will be net-zero

**Reduce Non-tactical
Petroleum Use**

By 2015, Department will reduce petroleum use in vehicles by 50%

Sail the "Great Green Fleet"

Department will demonstrate a Green Strike Group in local operations by 2012 and sail it by 2016

Energy Efficient Acquisitions

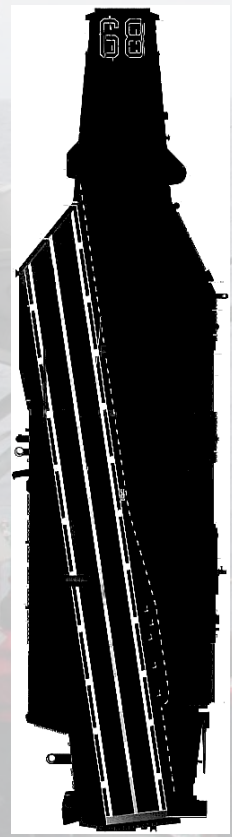
Evaluation of energy factors will be mandatory when awarding contracts for systems and buildings



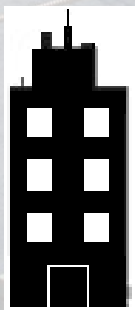
Naval Energy Profile

Energy Consumption

75%



25%

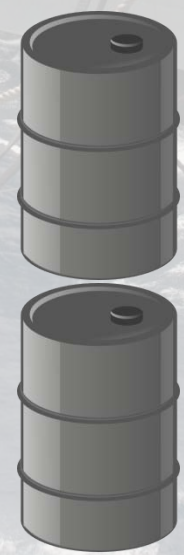


Tactical

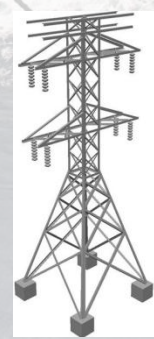
Shore

Energy Sources

57%



26%



16%



1%



Petroleum

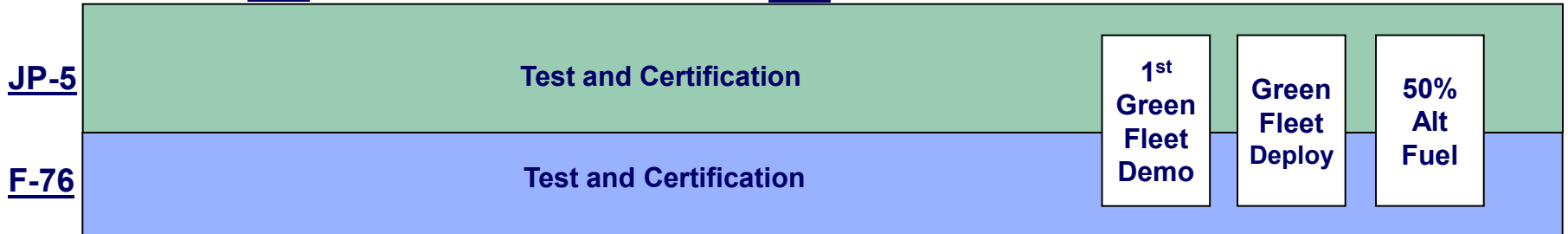
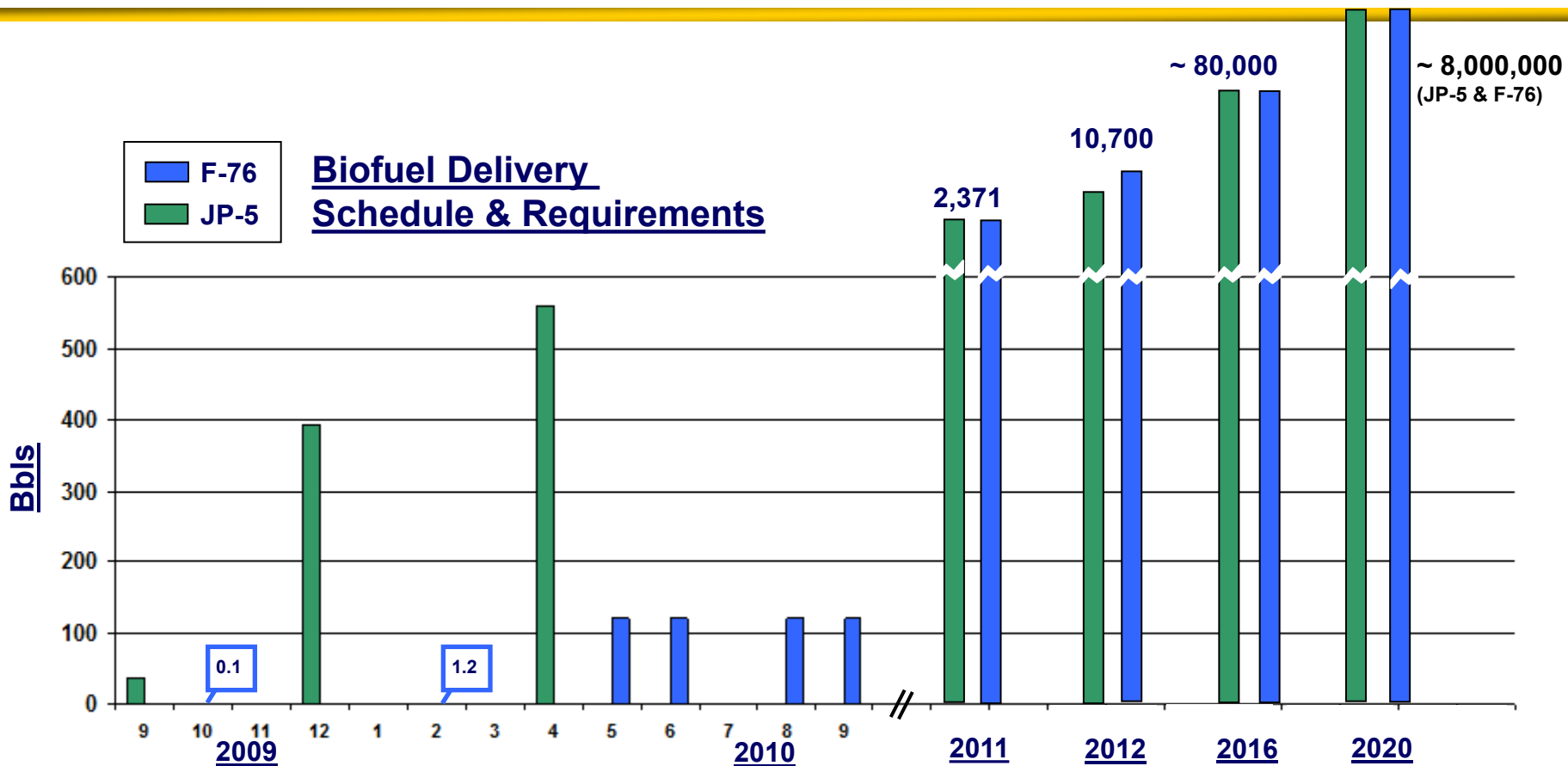
Electric & Nat Gas

Nuclear

Renewables



Navy Biofuel Needs (Neat)





Aviation Testing Progress





Ship Testing Progress





Pacific Ocean USS Princeton (CG 59) pulls oiler USNS Henry J. Kaiser (T-AO 187)



Royal Australian Navy S-70B Sea Hawk helicopter

2012 GGF DEMONSTRATION



SECNAV and CNO aboard USS Chafee



USS Princeton (CG 59) ,USS Nimitz (CVN 68)









← DANGER



ENERGY
SECURITY
AV



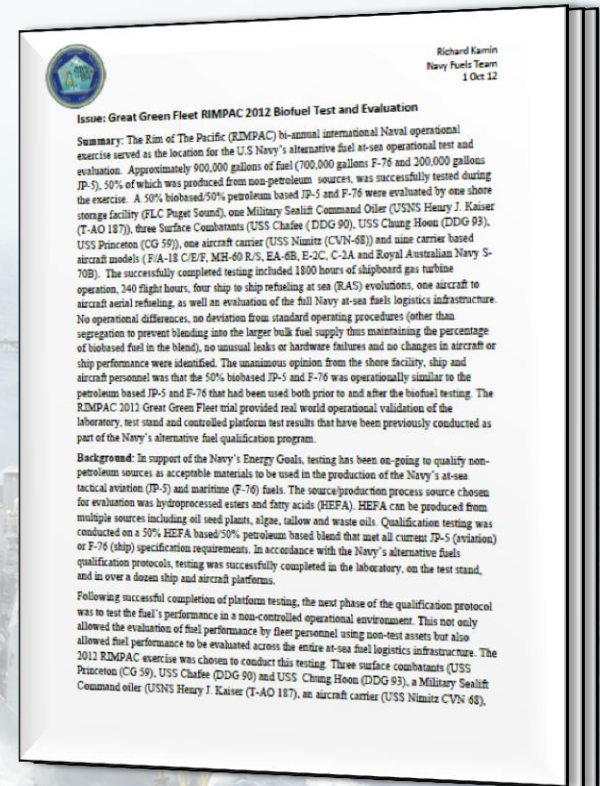






GGF After Action Report

- **1,800 hours of shipboard gas turbine operation**
- **240 flight hours**
- **Four ship-to-ship RAS evolutions**
- **One air-to-air refueling**
- **No operational differences noted:**
 - **Logistics Infrastructure**
 - **Ship power plants and aircraft**
- **Filters operated more efficiently due to fewer impurities in the fuel**





DPA Advanced Drop-In Biofuels Production Project



- ***DON, DOE, and USDA* have partnered to use the Defense Production Act (DPA) Title III and the Commodity Credit Corporation (CCC) to bring multiple, commercial-scale, cost-competitive integrated biorefineries online**
 - **Addresses all risk areas: feedstock (USDA Commodity Credit Corp), CAPEX/OPEX (DPA Title III), and offtake (DON end user)**
 - **Cost-competitive with conventional petroleum w/o subsidies**
 - **Produced domestically**
 - **EISA 526 Compliant (GHG \leq petroleum)**
 - **Derived from an acceptable feedstock**
 - **Suitable for military use (JP-5, JP-8, F-76)**
 - **No more than a 50% government cost share**



DON, DOE, & USDA Biofuels Effort



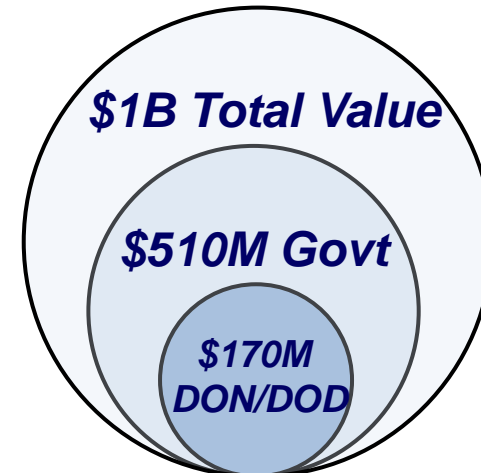
- ***Timeline:***
 - **Funding Opportunity Announcement Issued: June 2012**
 - **Phase 1 Finalists Notified: Fall 2012**
 - **Phase 1 Awards: Early 2013**
 - **Phase 2 Proposals and Negotiations: End of FY13**
 - **Phase 2 funds required to commence Phase 2 proposal process**
 - **Phase 2 Commence: Early 2014**
 - **First Fuel Delivered: 2015-2016 (Great Green Fleet Deploys)**



Funding Strategy



- **DON/DOD \$100M FY12 funding from within the DPA Title III funds**
- **USDA FY13 \$171M in CCC funds – non-discretionary**
- **DON/DOE FY13 total budget request \$110M – DPA funds of \$70M from DON and \$40M from DOE**
- **DOE FY14...**





100% Renewables-Powered



THANK YOU



F/A-18E
Mt. McKinley, Alaska