

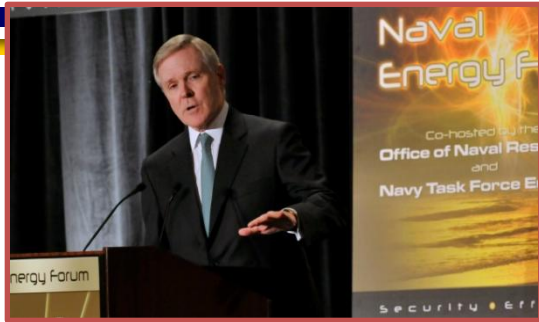


Accelerating Domestic Alternative Fuel Capabilities for National Security

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Our 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"

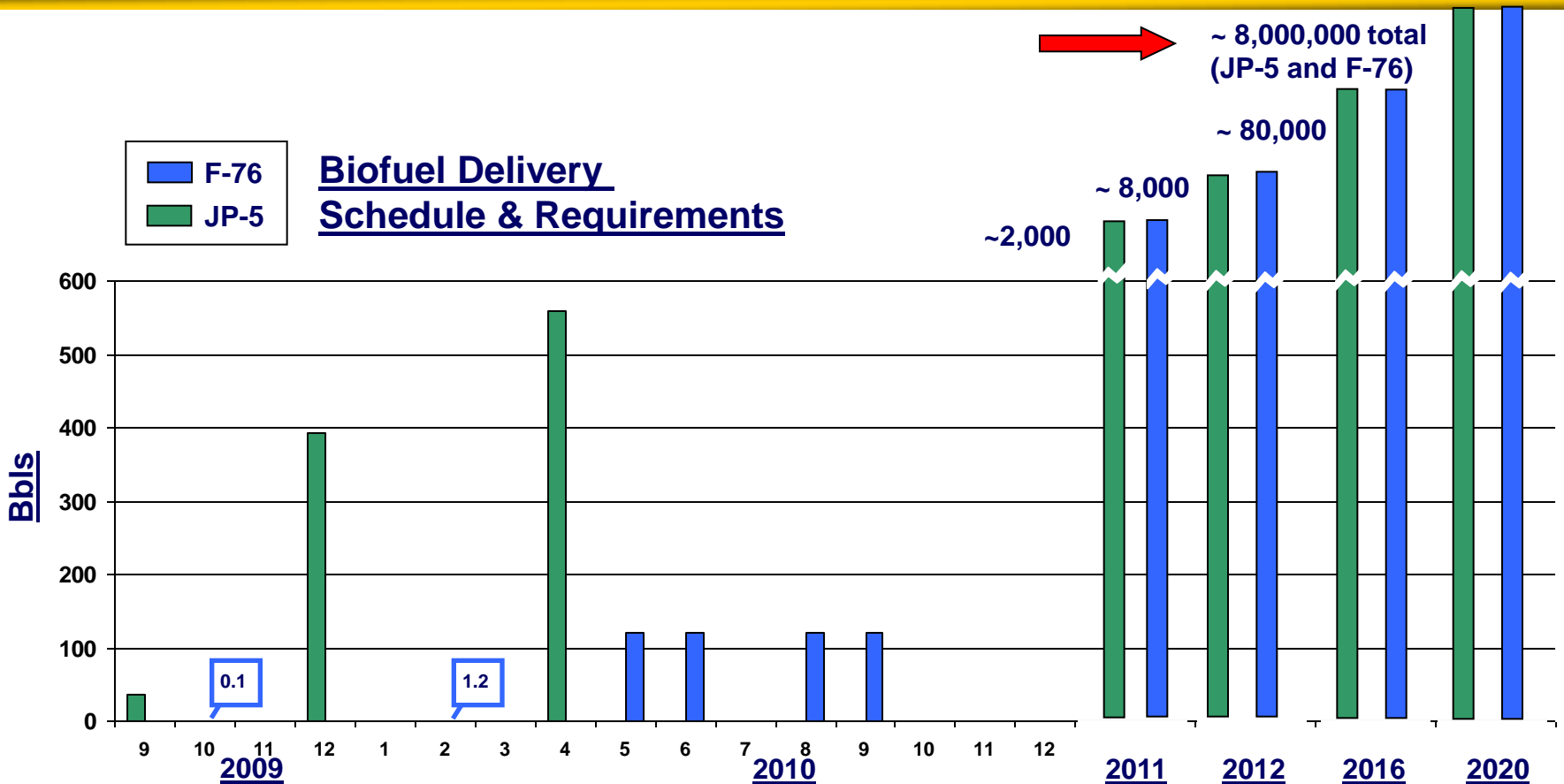
Department will demonstrate a Green Strike Group in local operations by 2012 and sail it by 2016

Energy Efficient Acquisitions

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



Great Green Fleet Biofuel Needs





Great Green Fleet Certification



Ship Progress



Aviation Progress



Aviation Biofuel

- *Green Hornet flies supersonic at Naval Air Station Patuxent River*
- *Final approval and certification of camelina-based biofuel completed for F/A-18 Hornet.*
- *Continuing testing on additional aviation platforms.*





Osprey Tiltrotor (V-22)



In August 2011, the Osprey was tested and flawlessly operated on a blend of 50-50 camelina-based biofuels.



Blue Angels



At the Sep 3 & 4 NAS Patuxent River airshow, the Blue Angels flew on a 50:50 blend of biofuels .



Why?



- ***As a Navy and a nation, we rely far too much on foreign sources of fossil fuel***
- ***This dependency degrades our national, energy, and economic security***
- ***Military capabilities, missions, and warfighters need steady, reliable supply of energy to keep nation and our nation's interests safe***
- ***A domestic, alternative fuels market is essential to enhance American energy independence and security***



Why Now?



- **Price volatility of petroleum**
 - *\$1 per barrel rise = \$30 million annual increase to Navy*
- **National security and economic consequences of U.S. dependency on foreign oil getting worse with time**
 - *Political instability amongst several key oil producing nations*
- **Current domestic biofuel capacity is insufficient to meet Defense needs**
 - *SECNAV goal of 50% of total DON energy consumption from alternative sources by 2020 (330 million gallons per year by 2020)*
- **Positive 2nd and 3rd order effects**
 - *Unique moment of opportunity to impact commercial needs, job creation, rural development, export technologies, carbon footprint*



What?



- ***The Navy is working with the USDA and the DOE to utilize existing federal authorities to partner with private industry towards the construction or retrofit multiple domestic alternative fuel plants and refineries with the following characteristics:***
 - ***At or near commercial-scale (10 million gpy neat fuel)***
 - ***Drop-in replacement 50-50 blends meeting military specs***
 - ***Fuel prices competitive with fuel intended to be replaced***
 - ***Geographically diverse locations***
 - ***No impact on food supply***
 - ***No negative second and third order effects***



How?



- **Secretary Vilsack, Secretary Chu, and Secretary Mabus met on 12 May to align:**
 - **Existing Federal authorities**
 - **Defense Production Act Title III**
 - **Commodity Credit Corporation**
 - **Resources**
 - **\$170 million per agency FY11 through FY13**
 - **\$510 million combined total FY11 through FY13 (a minimum 50% cost share with industry is assumed)**
- **Goal: one clear signal to industry with a single solicitation utilizing existing authorities**
- **MOU between USDA, DOE, and DoN signed June 2011**



Defense Production Act Title III



- ***Title III actions stimulate private investment in production resources by reducing the risks associated with the capitalization and investments required to establish the needed production capacity.***
- ***Objectives:***
 - ***Expanding/sustaining production capacity***
 - ***Ensuring U.S. Government access to technology/resources***
 - ***Ensuring long-term commercial viability***
- ***Title III provides authorities that enable the Government to rectify industrial base shortfalls***
- ***Synergy of technical and business objectives focused on long-term economic viability and technology insertion***
- ***Title III Program has proven performance and innovative execution***



Commodity Credit Corporation



CCC can be used to complement to DPA Title III authority:

- ***Allows fuels comprised of agricultural oils to be purchased at a price premium and sold at a competitive rate to DoD***
- ***Covers the cost differential between the premium and the competitive price***
- ***CCC does not have any employees; uses the services of State and Federal agencies to carry out its activities***
- ***CCC can authorize DoD contracting officers to contract on behalf of CCC and/or use CCC funds***



Event Timeline

Great Green Fleet Demo

Great Green Fleet Sails



Integrated Biorefineries

Construction Begins

Production Begins

Delivery Begins

◆ DON, DOE, USDA MOU

◆ RFI & Industry Day

Solicitation



Proposal Review

Contracts Award

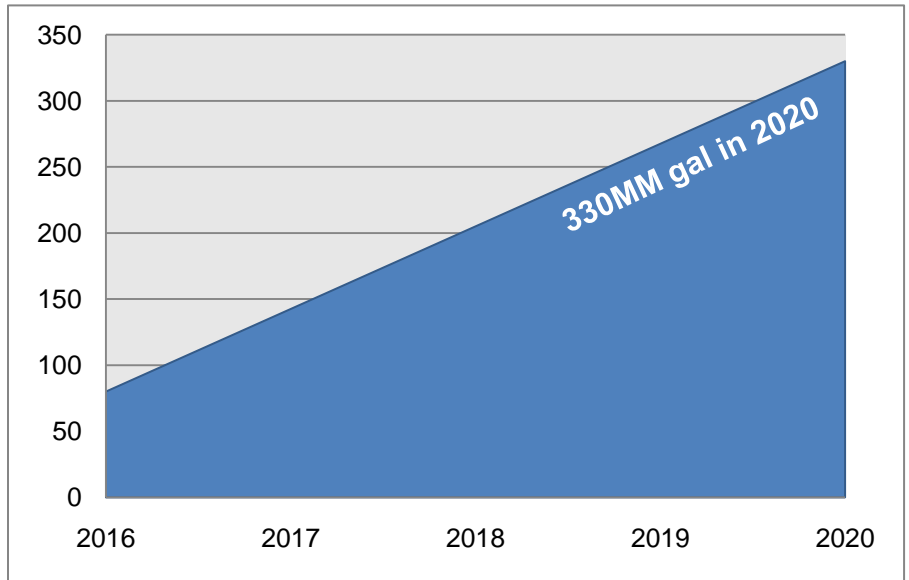
DON \$170M 1st Awards

Funds Obligated

USDA, DOE \$340M 2nd Awards

Funds Obligated

Millions of Gallons of Biofuels



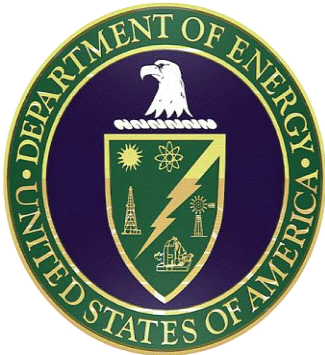
(\$510M total from DON, DOE, USDA)



Back up Slides



President on America's Energy Security



“I’m directing the Navy and the Department of Energy and Agriculture to work with the private sector to create advanced biofuels that can power not just fighter jets, but also trucks and commercial airliners.” *President Obama at Georgetown University, March 2011*



The Biofuels Enterprise Model



Participants include:

Landowners

Ag Processors

Refiners

Distributors

Farmers

Trade Groups

Technologists

Military Services

Regulatory Agencies

Defense Logistics Agency – Energy

Resources to bring to enterprise to reduce process risk:

USDA

Department of Energy

Private Sector

Department of Defense

How do we stimulate industry to produce enough volume to be meaningful to military operations and to the energy market?





Locations of Biofuel Companies of Interest Across the U.S. (by District)

