

# Sustainability Innovations



*CAPT John J. Hickey*

# Emergency Load Reduction



# Benefits of ELRP



Incentives



Protect the  
Community



Environmental  
Protection



Protect  
Your  
Operations

# ELRP Incentives



# ELRP Incentives



Hono  
Has  
Money

# Base Honolulu

- Exterior Lighting & Solar Domestic HW



# Base Honolulu

- Photovoltaics & Vending



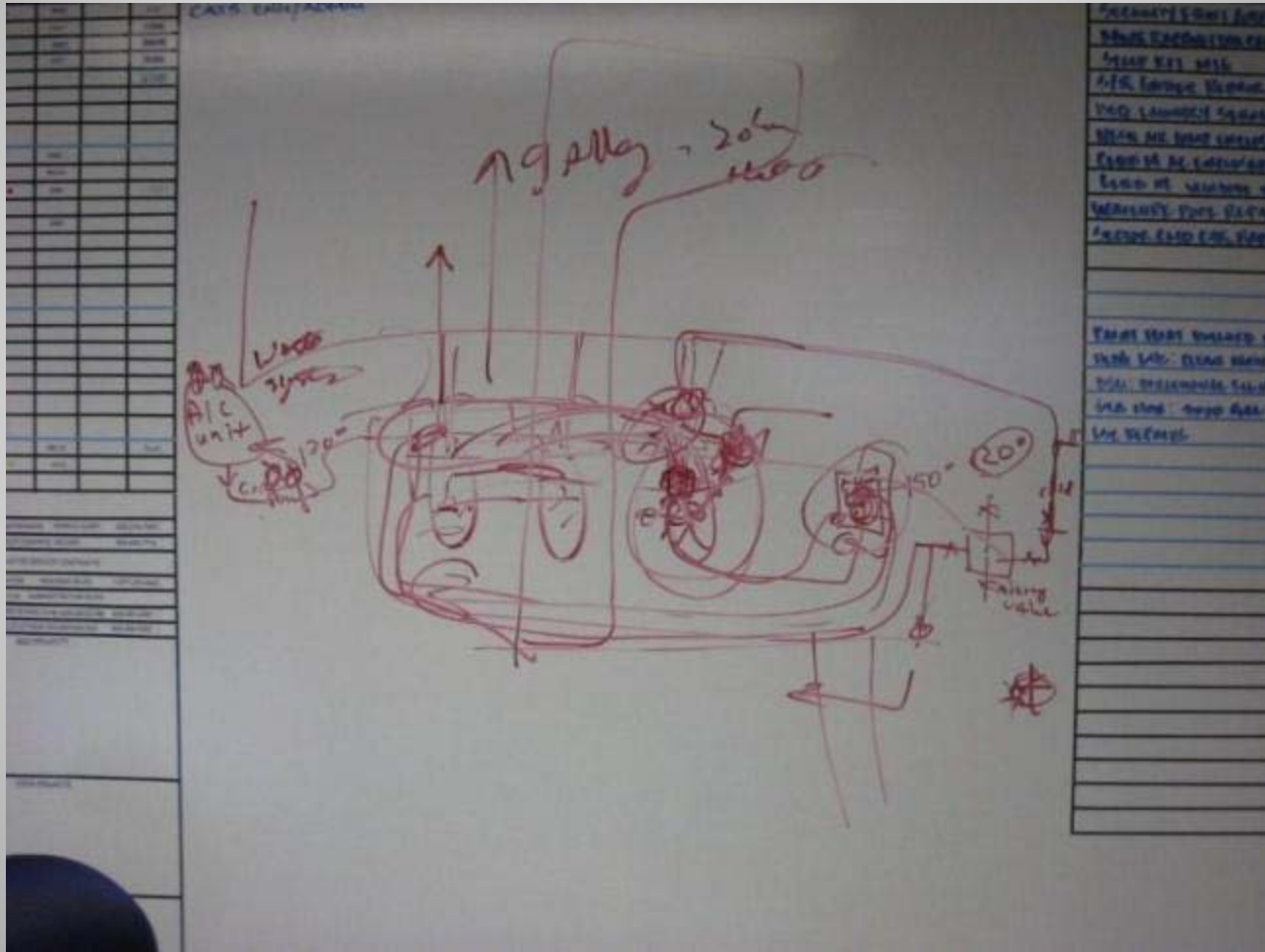
# Base Honolulu

- Conservation Voltage Reg & Cutter Retrofits





# Chiller Waste Heat Recovery





# **AIR STATION BARBERS POINT VERTICAL AXIS TURBINE**

# Energy Savings Performance Contracts

14 Contracts Awarded  
\$100 Million Invested  
14% Energy Savings



# Kodiak ESPC



# Leadership



*The Integrated Support Command Kodiak Energy Saving Performance Contract Team (top row) FD&CC Seattle: Bob Mallahan, Project Manager; Kristina Meabon, Contracting Officer; Ed Rockenstine, Senior Contracting Officer  
(bottom row) Enery Gore, National Energy Program Manager, Headquarters; Jesse Maestas, Financial Analyst, Headquarters; Mike Brown, Facility Engineer, ISC Kodiak.*



The U.S. Coast Guard's Integrated Support Command Kodiak, Alaska entered into an energy savings performance contract (ESPC) with NORESKO to install \$20 million in energy efficiency projects. Contracting and administrative support was provided by the Facilities Design and Construction Center Seattle and the Coast Guard's National Energy Program. Facility improvements include lighting retrofits; a centralized steam system and piping system upgrades; variable frequency drives; combustion controls; boiler economizers; various refrigeration and HVAC upgrades; and highly efficient washers, dryers, and water fixtures. These and other measures will result in annual energy and water savings of 81 billion Btu and 49 million gallons.

Integrated Support Command  
Kodiak, AK



YOU HAVE  
the POWER™

U. S. Department of Homeland Security  
Federal Energy Management Program



For more information on how you can get involved in the YOU HAVE the POWER campaign, visit the FEMP Web site at [www.eere.energy.gov/femp](http://www.eere.energy.gov/femp).

# Energy Savings Performance Contracts

## Construction Phase

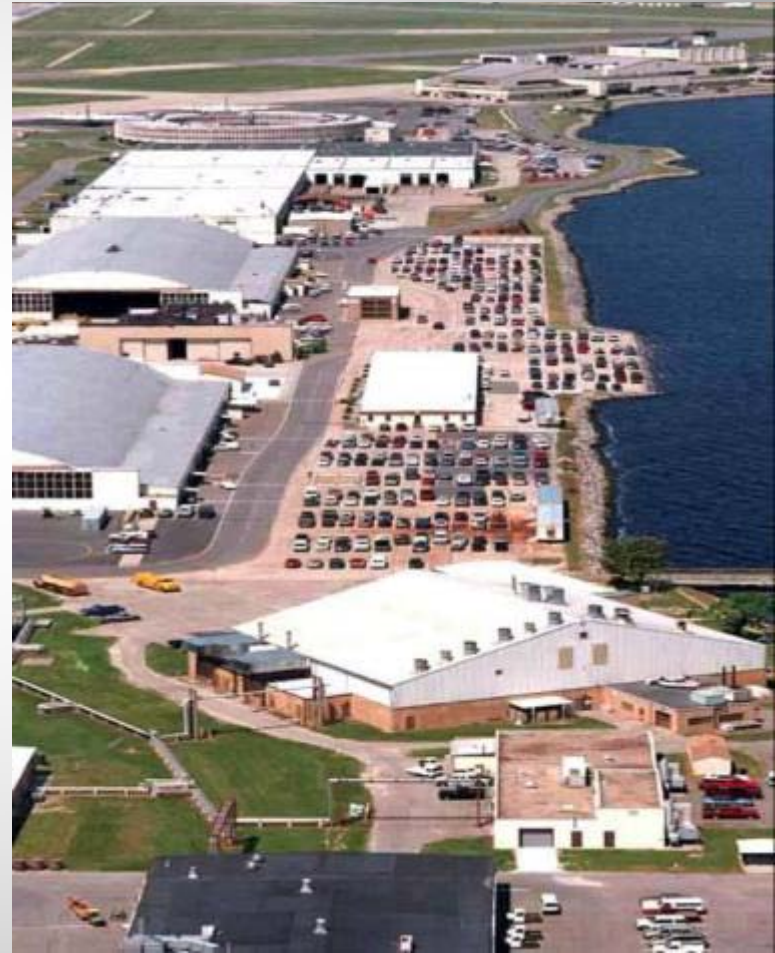
- Sector New York
- USCG Academy



# Energy Savings Performance Contracts

## In Development

- Cape May
- Puerto Rico
- Portsmouth  
Yorktown
- Elizabeth City
- UESC's



# JUNEAU WIND FOR SCHOOLS





# Alaska



**The Saudi Arabia  
of Biomass**

# *Aircraft Hangar Lighting*



# Training Center Petaluma Model Unit



# Petaluma PV PPA



# 1 MW Total Solar Power





# **Sector San Francisco Renewable Energy**

# High Performance Buildings

## Seattle Operations Bldg

### LEED Silver



# High Performance Buildings

25% More Efficient than code





# LEED Silver Housing



# LEED Gold Housing



# LEED Gold Housing



# ***High Performance Buildings Station Marquette – LEED Certified***



# ***High Performance Buildings***

***Station Marquette  
LEED Certified***

**40% Water Savings**



# High Performance Buildings

- Ground Source Heat Pumps

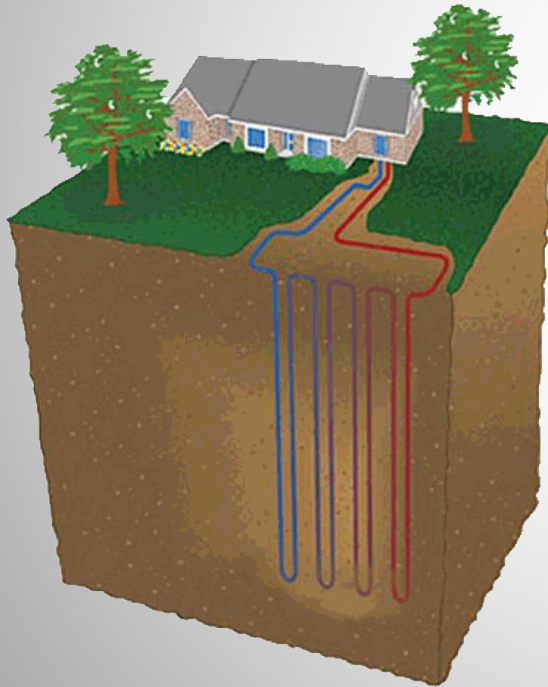


Image courtesy of ClimateMaster



# CUTTER LIGHTING RETROFITS



# Aton Initiatives





# Lighthouse Solarization



# LED Aids to Navigation



# Reliability through Renewables



# Readiness through Renewables





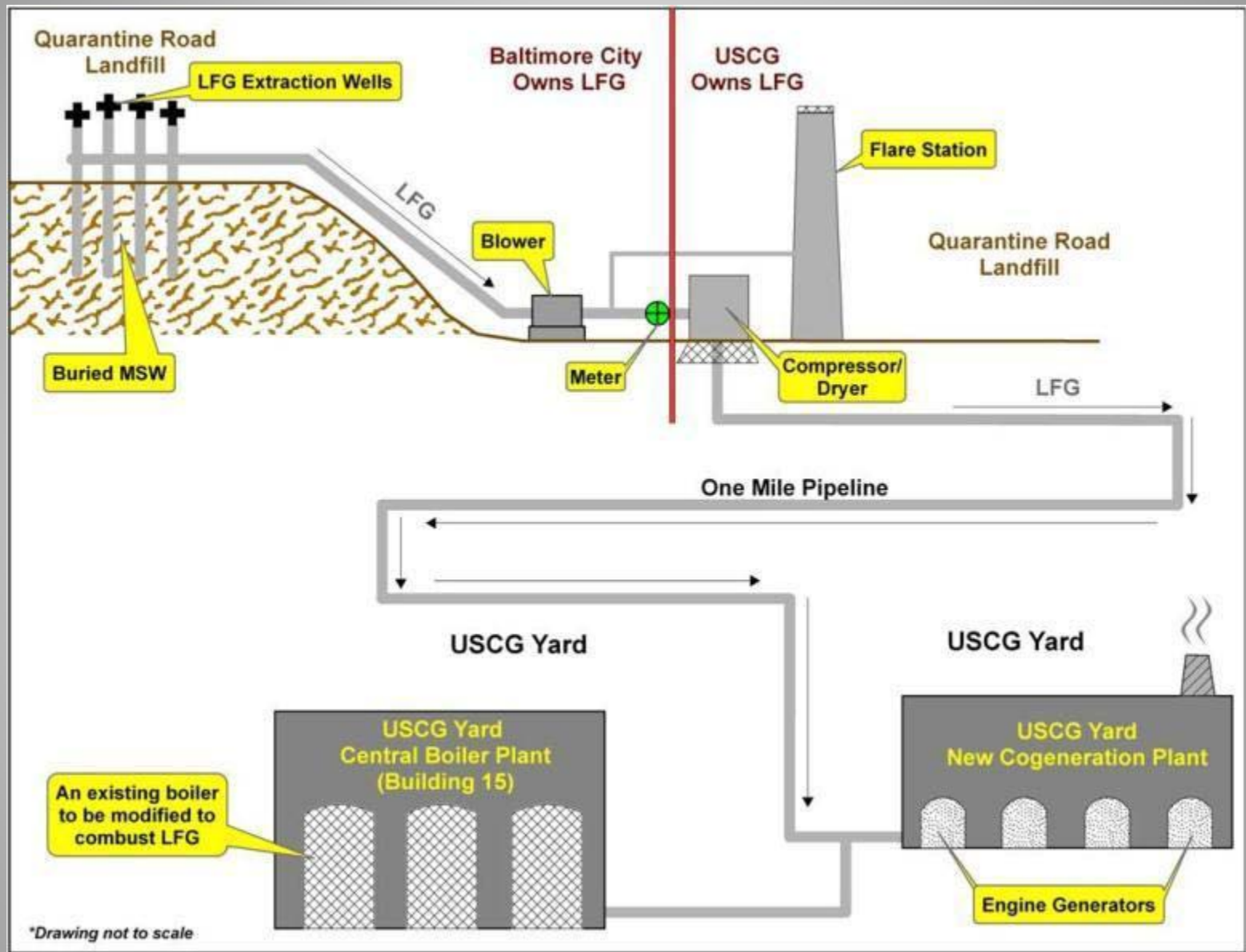
# Rescue 21 Wind Power



# Shipyard Renewable Energy

- Landfill Gas Co-Generation Plant (4 Megawatts)
- 100% Renewable Energy Project
- Operational April 2009







# SOUTHWEST HARBOR HOUSING



# Earth Day 2010



# SOUTHWEST HARBOR HOUSING



# Tidal Energy

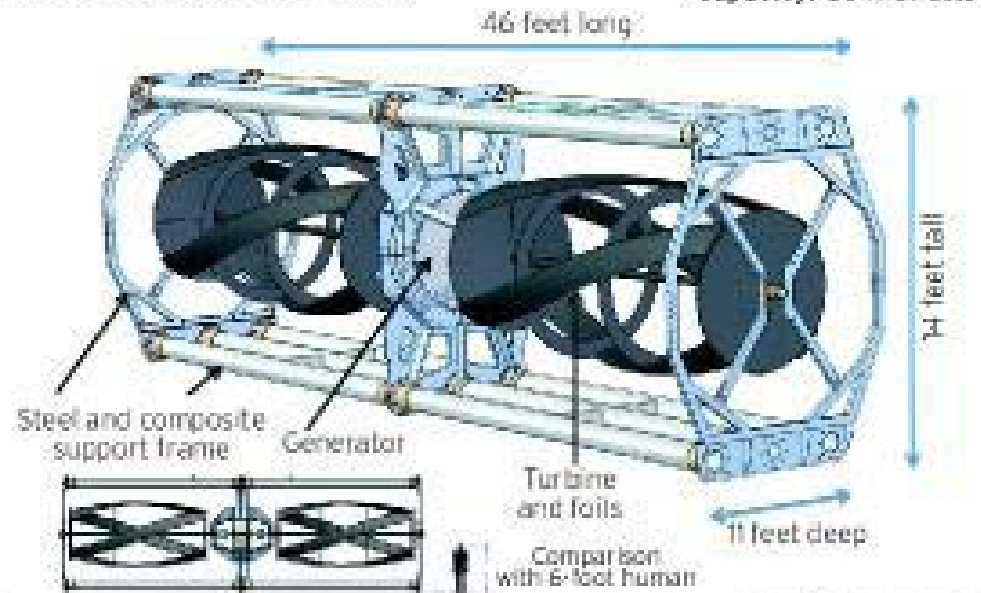


# The Kitty Hawk of Tidal Energy



**Ocean Renewal Power Co.'s Turbine Generator Unit**

Weight: 13 tons  
Maximum design capacity: 60 kilowatts



SOURCE: Ocean Renewal Power Co.

BANGOR DAILY NEWS

# BASE PORTSMOUTH



# USCGA SUSTAINABILTY



# SUSTAINABILITY

GUARDIAN - YOU SAVE LIVES, NOW SAVE A PLANET.



UNITED STATES COAST GUARD  
ENERGY MANAGEMENT PROGRAM