



SELFRIDGE

Air National Guard Base

Making Energy a Consideration
In *All* We Do



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127th Civil Engineer Squadron



SELFRIDGE

Air National Guard Base



Base Overview

- One of the nation's oldest, busiest, and most complex military installations.
- Originally constructed in 1917 on 640 acres as an aviation field to train World War I pilots.
- The only US installation housing Army, Air Force, Navy, Marines, Coast Guard and the Department of Homeland Security and current home to over 40 tenants
- The Michigan Air National Guard's 127th Wing operates and maintains the 9,000-foot long runway used for training
- Over 6,200 military and civilian personnel work at the installation
- Installation currently covers 3,100 acres
- Maintains 300+ buildings totaling over 2.5 million square feet.



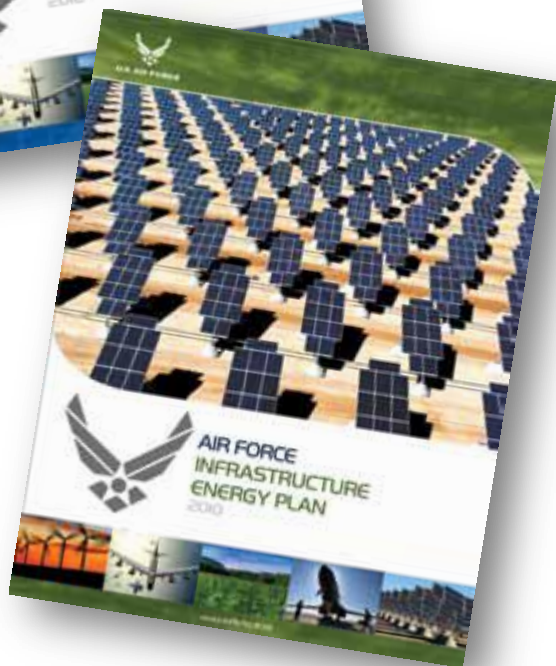
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Air National Guard Base



Building Overview

- Maintains 300+ buildings
- Approximately 2.5 million square feet of buildings
- Average age of building on base is 51 years old
- Over 650,000 square feet constructed prior to 1945
- Over 650,000 square feet constructed 1950-1960
- Approximately 1.3 Million Square feet, or 50% of the base's building square footage, is subject to Michigan State Historic Preservation Office (MiSHPO) regulations.



Energy Mandates

- Executive Order 13423
- The Energy Policy Act of 2005
- The Energy Independence and Security Act of 2007
- Air Force Energy Plan
- Air National Guard 2010 Infrastructure Energy Strategic Plan



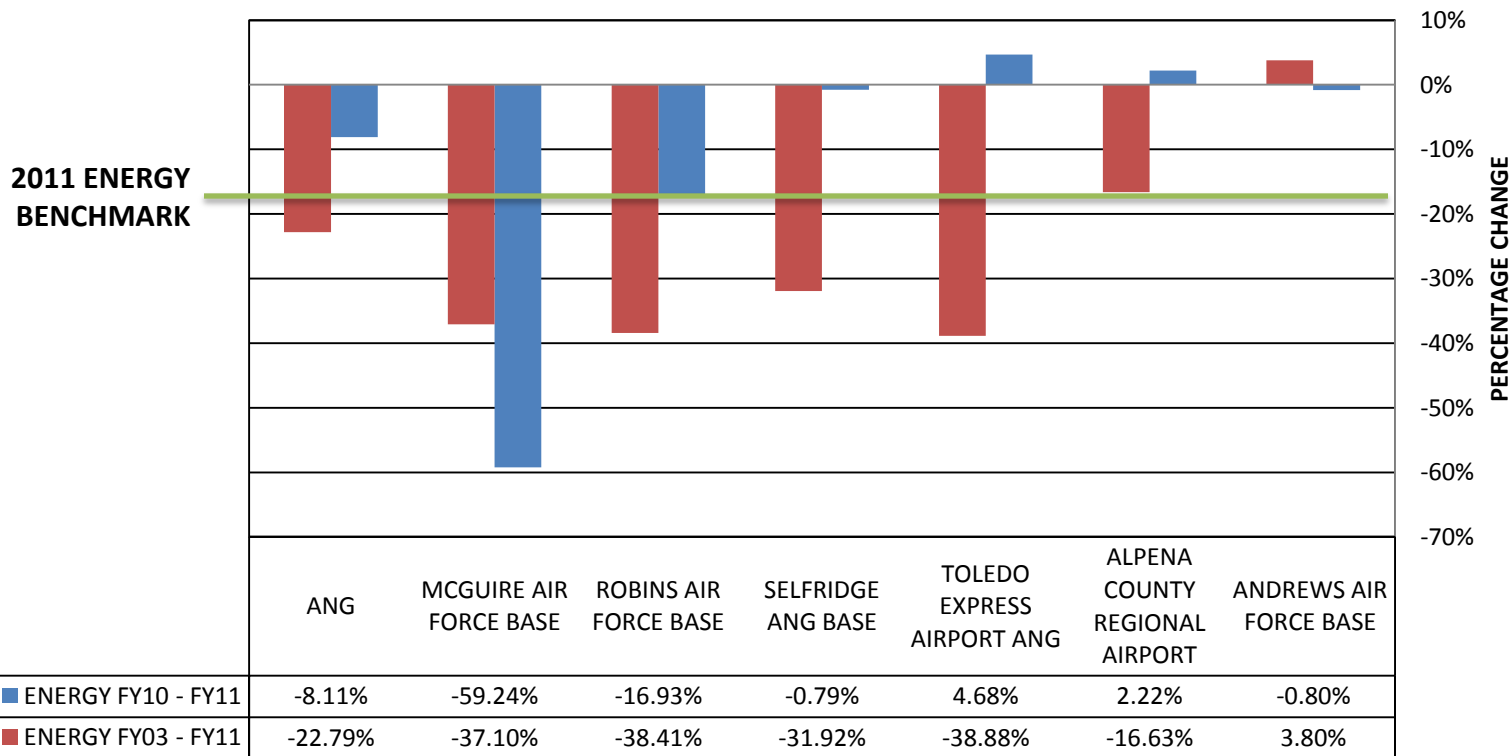
Energy Cost Reduction & Conservation Projects

- 2009 Sebesta Blomberg Facility Energy Assessment of 30 ANG Facilities (967K Sq. Ft.)
- 2010 M2G Boiler Sequencing Controls “TEST” for NGB/A7
 - *Test proved and average 7.5% savings in energy consumption
- 2011 Smart Meters/LAN Gate Routers installed on 3 Coast Guard Facilities
- 2011 Smart Meters/LAN Gate Routers installed on 36 facilities (720K Sq. Ft.)
- 2011 Entered the State of Michigan Natural Gas Co-op
- 2012 Direct Digital Control Systems installed on 34 ANG facilities (690K Sq. Ft.)
- 2012 Army National Guard Smart Meter and multi-facility energy conservation project
- 2012 Department of Homeland Security LED Lighting retro-fit project
- 2012 Retro-Commissioning of 17 ANG facilities (500K Sq. Ft.)



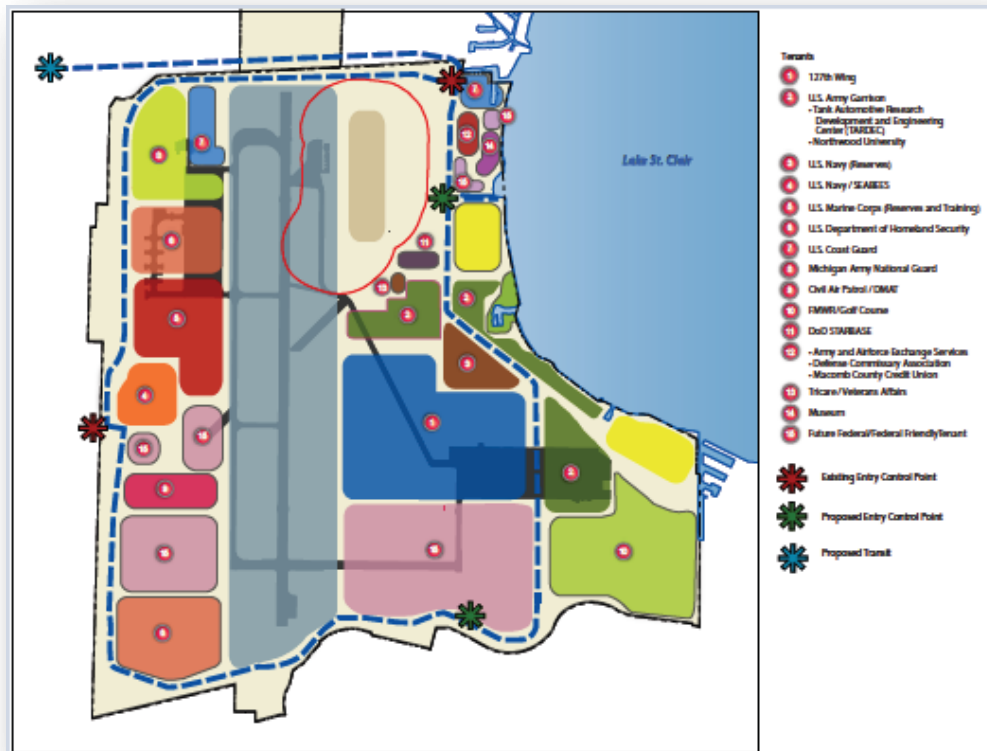
Validating Energy Reduction

ANG ENERGY REPORTINGS





Land Use & Strategic Energy Planning



The installation is in the process of finalizing a 50 year Comprehensive Land Use Plan.

Creating a Strategic Energy Plan will allow the installation to program energy conservation projects in a more directed and logical manner.

The Strategic Energy Plan will also take current and future land use, not just building infrastructure, into consideration to create economy of scale.



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MARCH 20, 2012 AT 1:12 PM

Macomb officials urge U.S. to spare Selfridge from cuts

BY CHARLES E. RAMIREZ THE DETROIT NEWS

Chesterfield Township — Macomb County officials called today on the federal government to spare the Selfridge Air National Guard Base from funding cuts proposed for the base.

Why can't Congress resolve budget gridlock?

Article by: By ROSALIND S. HELDERMAN Washington Post Updated: October 26, 2011 - 11:08 PM

Government is one month from again facing chance of shutdown.



Congress and the budget: Here we go again

CNNMoney

By Jeanne Sahadi | CNNMoney.com - Wed, Mar 21, 2012 5:28

Sen. Carl Levin hopeful that Air Force cuts won't hurt Selfridge

March 20, 2012 | 4 Comments

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Shutdown Looms Without Further Meeting Between White House, Congress

Published April 06, 2011 | FoxNews.com



The impasse between the White House and Congress increasingly looks like it will force the government to shut down by the weekend, with a spending summit yielding no deal on Tuesday.

President Obama said he would like to meet with congressional leaders every day until the stalemate over funding the government for the rest of the fiscal year is solved, but as of Tuesday

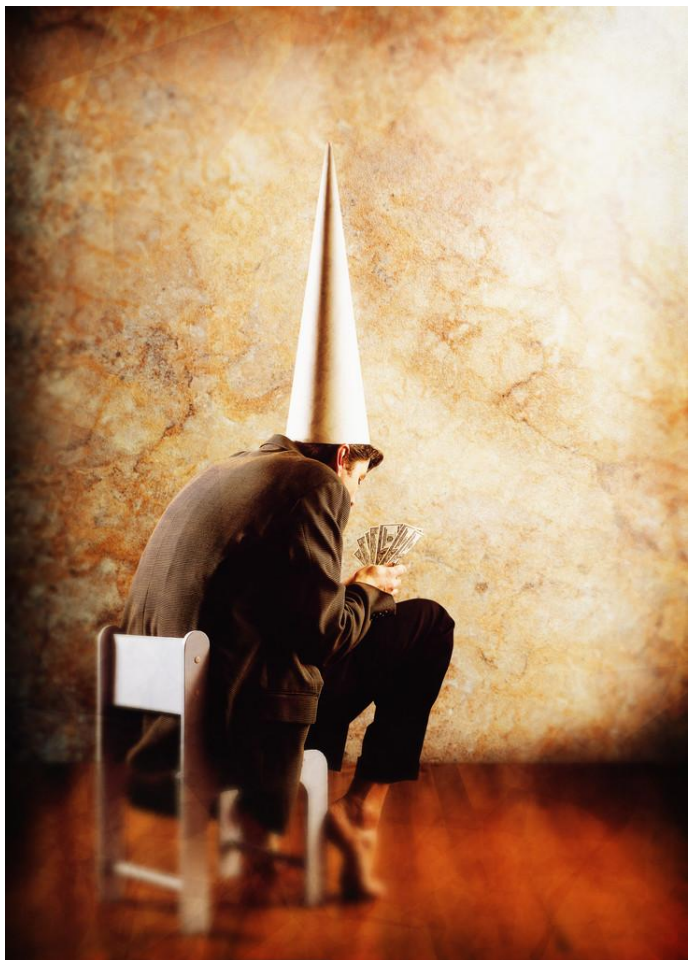
FUNDING?



SELFRRIDGE
Air National Guard Base

DIVERSIFY!

DIVERSIFY!



Energy Smarts!

- Member of the State of Michigan Natural Gas Cooperative
 - Considerable saving annually
- Pursuing Strategic Environmental Research and Development Program (SERDP) and Environmental Security Technology Certification Program (ESTCP) funding
 - Potential for free energy upgrades
- Initiated Consumer's Energy and DTE Energy Optimization Rebates Program
 - Great mechanism to recapture energy money but difficult to time...



Advantages of White Tags



- Creates the opportunity to accrue incentive monies across fiscal years for larger payouts – current DOD accounting practices don't allow incentive money to carry over from year to year
- Greater flexibility when checks are generated – the base decides when the checks are paid out not the end date of a project!
- Allows for the capture of energy savings that may not fit into a “prescriptive” or “custom” category with a traditional utility incentive program



In FY2011 Selfridge generated

859 White Tags

Providing the Energy Program Fund

\$2700

in energy incentives unobtainable
through traditional rebate programs



The Future of Energy

- Investigating the feasibility of Geothermal Utility Districts
- Waste Heat Recapture and cogeneration
- Harnessing the power created at the base's three water pumping stations
- DC power options
- Battery Storage for load shedding capabilities and increased energy security
- Solar thermal





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QUESTIONS?

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