



TOOELE ARMY DEPOT (TEAD)

ENERGY PROGRAMS

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INTRODUCTION

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- TEAD consumes between 80,000 and 100,000 MMbtus of Energy Annually
- TEAD North and South Demand Loads are 2.6 MW and 0.7 MW Respectively





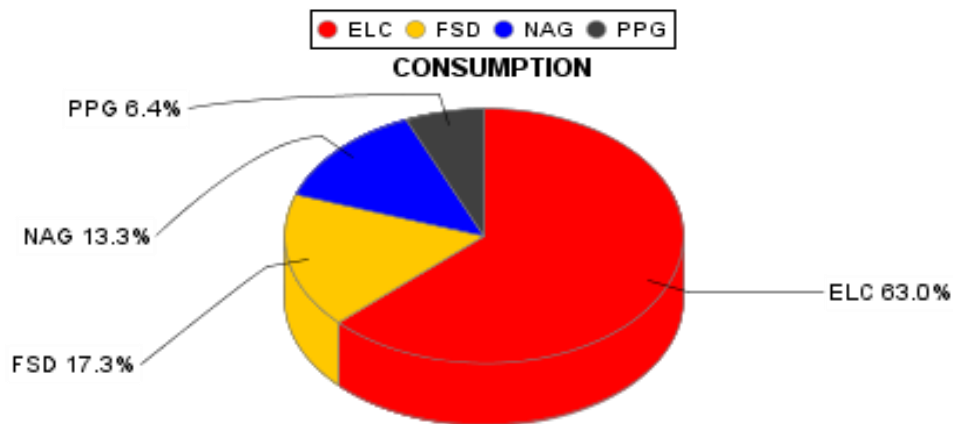
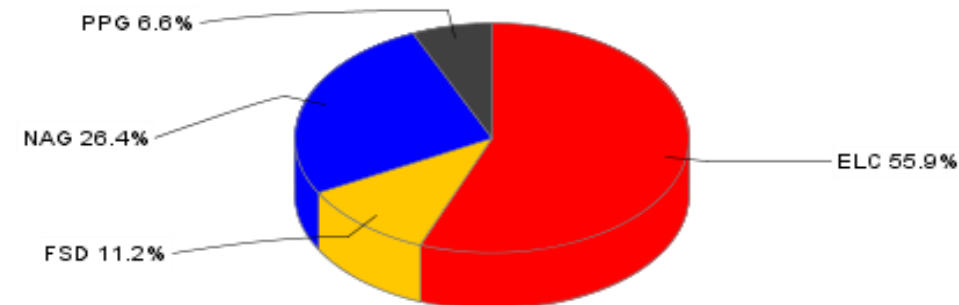
ENERGY GRAPH

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ENERGY DISTRIBUTION FOR 2016

21 Jul 2016

49575 TOOELE ARMY DEPOT





CHALLENGES

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- Large use of Fuel Oil
- Large use of Propane
- Power Factor Problems
- Old Structures with 1942 Era building Envelopes
- Aging Substation
- Large Peak Demand and Demand Charges
- Aging and Aged Infrastructure (Some areas on the Depot have 50 year old and older Utility Poles)
- Voltage Problems
- Lack of Metering and Controls





NONRENEWABLE PROJECTS

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- 2008 Lean Six Sigma Study Sets Project Priorities
 - Bldg 1345 Boiler Replacement – Done
 - Bldg 1222 Envelope Improvements/HVAC Replacement – Done
- Installation of Bidirectional Metering Station – Done
- Renovation of 5 buildings – Done
- Energy Management Control System FY 17
- Installation of Gas Turbine Backup Generators – FY 17
- Depot Microgrid FY18
- Installation of Natural Gas Line/Gas Heating Projects FY19





NONRENEWABLE PROJECTS

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- Energy Conservation Measures – Pending
- Replacement of Existing Substation – Pending
- Replacement of 50% of the Aging Electrical Poles – Pending





RENEWABLE PROJECTS

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- Culinary Heat Pump (Bldg T8) – Done
- Solar Walls on 14 Buildings – Done
- Solar Walls on New Construction (Bldg 1271) – Done
- 1.5 MW Wind Turbine – Done
- 1.5 MW Stirling Solar Array Planned Completion FY 17
- 1.8 MW Wind Turbine Planned Completion FY 17
- 2.0 MW Photovoltaic Solar Array – Pending





PROJECT FUNDING SOURCES

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- Sustainment/Restoration/Modernization (SRM)
- Stimulus Funds (ARRA)
- Capital Improvement Program (CIP)
- Energy Conservation Investment Program (ECIP)





INITIATIVES

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- Designation as a “Qualifying Facility” by the Federal Energy Commission (FERC) - Done
- Visit from Federal Energy Management Program (FEMP) – Done
- Publish TEAD Energy Policy – Done
- Develop Energy and Water Action Plan - Done
- Electrical Audit by Rocky Mountain Power – Done
- Publish TEAD Energy Security Policy – Done
- Establish a Net Metering Agreement with Rocky Mountain Power – Done
- Establish an Interconnection Agreement with Rocky Mountain Power – Done
- Replacement of Street and Building Lights with LED Fixtures - Ongoing





PERFORMANCE

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- Meeting and Exceeding All Federal and DoD Mandated Goals

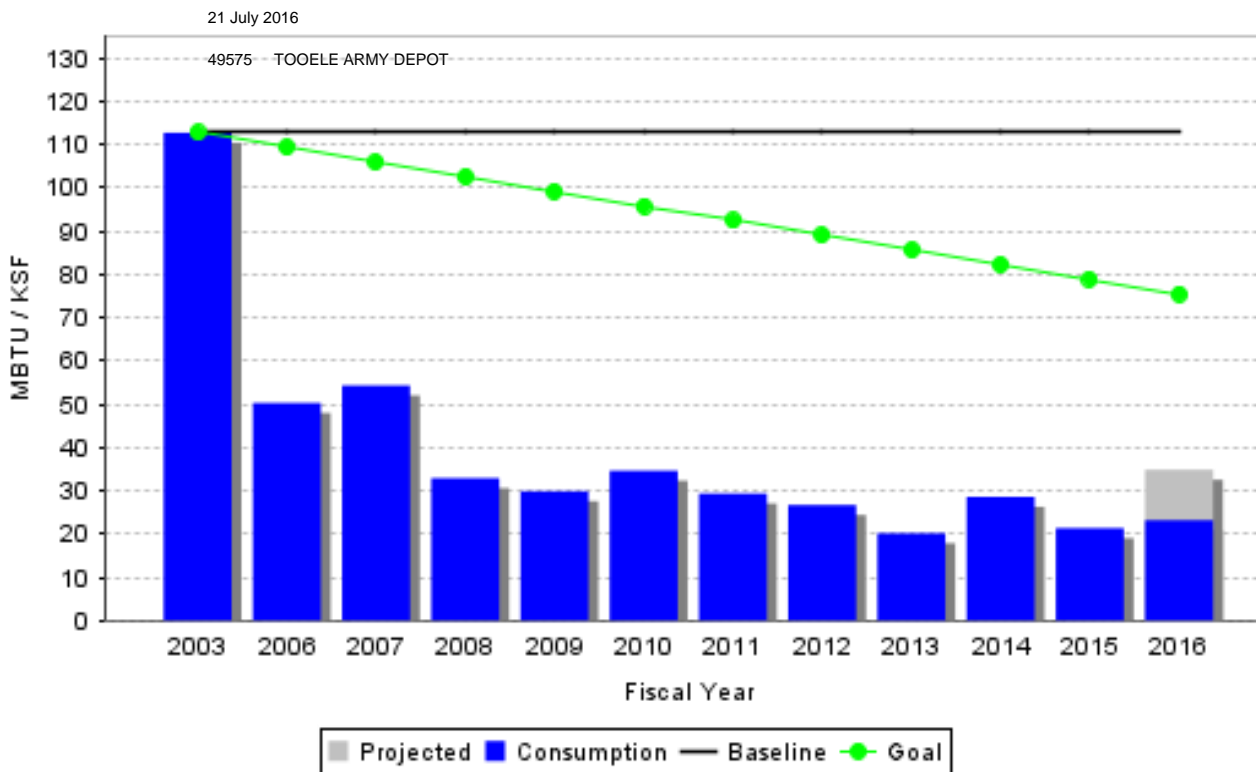




Master Planning Map

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PROGRESS GRAPH
For TOOEE ARMY DEPOT



If a projected bar is shown for the current fiscal year, the blue area is based on actual consumption and KSF data entered, while the gray area projects the year end consumption per unit area if consumption continues at the same rate.





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QUESTIONS

