



Energy and Security Group

ENERGY AND SECURITY GROUP

Addressing natural resource issues at the heart of global security

Our Mission

ESG strives to expand the use of clean energy and environmental technologies and practices to enhance economic performance, promote energy security, improve quality of life, and advance resource sustainability.

Core Competencies

The ESG team is experienced in operations research analysis, logistics supply chain modeling, energy and water benchmarking, economic and financial analysis, decision support tool development, policy and program evaluation, and related training and education. ESG publishes materials for both technical and lay audiences and has strong research and writing skills. ESG applies these skills to find versatile, feasible and practical solutions to national and international problems related to limited natural resources. Current ESG projects focus on:

- ▶ National and international energy and water policy
- ▶ Energy and water benchmarking
- ▶ Analysis and analytic framework development
- ▶ Decision support tool development
- ▶ Group training and educational products
- ▶ Research and technical writing
- ▶ Project development and finance facilitation
- ▶ Program management



General Information

DUNS #: 116656773
CAGE Code: 3AYW4
Classification:
Woman-Owned Small Business

Contract Vehicles

- ▶ **GSA MOBIS Schedule**
874-1 GS-10F-0451P (now Professional Services Schedule (PSS))
- ▶ **USAID Clean Energy IDIQ**
Non-CPCs

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Recent Products

Technical Reports available on www.dtic.mil

- ▶ Fully Burdened Cost of Intra-Theater Resupply Distribution of Classes I, II, IV, V, VIII, and IX Estimation *TBP*
- ▶ Fully Burdened Cost (FBC) Tool: Greenhouse Gas Emission Impacts
- ▶ Fully Burdened Cost of Water in the Army: Methodology and Capability

User Guides available on www.energystar.gov

- ▶ ENERGY STAR® Action Workbook for Small Business
- ▶ ENERGY STAR® Action Workbook for Congregations

Methodologies and Decision Support Tools

- ▶ Fully Burdened Cost Tool
- ▶ Methodology and Analysis of Energy Security in Military Operations, available on www.aepi.army.mil

NAICS Codes

- ▶ 541611 Management and General Consulting
- ▶ 541614 Process, Physical Distribution, and Logistics Consulting Services
- ▶ 541511 Custom Computer Programming Services
- ▶ 541690 Other Scientific and Technical Consulting Services
- ▶ 541990 All Other Professional, Scientific, and Technical Services

ESG Clients





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Selected Past Performance Examples

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Microgrid Development Assessment in Haiti, U.S. Trade and Development Agency* May 2015 (1 year): ESG is completing a feasibility study to assess and rank the viability of developing microgrids in approximately 100 Haitian towns based on economics, physical infrastructure and community objectives. The goal of this project is to increase access to reliable electricity in Haiti by enabling preparation of a fundable investment plan for microgrid expansion.

Developing an Operational Energy (OE) Capability Improvement Fund (CIF) Theater Supportability Analysis Tool Kit, U.S. Army Logistics Innovation Agency* March 2015 (2 years): ESG is implementing Fully Burdened Cost (FBC) Tool improvements to enhance user experience. The FBC Tool is an ESG-developed, independently verified and validated decision support tool for estimating and analyzing the FBC of energy and water required to sustain Army missions. The FBC Tool supports full-spectrum logistics operations to include combat and stability missions and planning for future Army operations.

Power Africa, U.S. Agency for International Development* August 2014 (4.5 years): Power Africa goals are to increase electrical power supply availability, reliability, affordability, and access while lowering greenhouse gas emissions and increasing efficient use of resources in Africa. ESG is undertaking activities, most notably in Liberia, that address environmental, social, clean energy, climate change, gender, and poverty concerns.

Fully Burdened Costs of Intra-Theater Resupply Distribution of Classes I, II, IV, V, VIII, IX, U.S. Army Logistics Innovation Agency* April 2014 (1.5 years): ESG identified data sources and defined and demonstrated a methodology for estimating the FBCs of Class I, II, IV, V, VIII, and IX materiel in a theater distribution system. The methodology included development of a framework to apply Army FBC energy guidance across supply classes and expanded associated FBC metrics.

EPA ENERGY STAR® for Small Business and Congregations Network, U.S. Environmental Protection Agency Jan 2007 (10 years): ESG serves as the lead contractor to EPA for U.S. small businesses and congregations participating in ENERGY STAR, focusing on energy efficiency training and education as well as energy/water benchmarking. ESG provides web-based training and support for energy efficiency, one-on-one meetings, report and training guide preparation, training on the methodology and benefits of benchmarking, and detailed results analysis. Additionally, ESG coordinates with organizations and service providers to benchmark large groups of properties.

Methodology and Analysis for Water Security in Military Operations (MAWSMO), Office of the Assistant Secretary of the Army for Installations, Energy & Environment October 2012 (1.5 years): ESG reviewed the Army's enterprise-level water framework and proposed changes to improve upon current practices by integrating water modeling and analytic capabilities. The proposed framework leveraged existing capabilities and was designed to be both feasible and affordable. MAWSMO recommendations can increase mission effectiveness and efficiency by saving lives, increasing water reuse, maximizing the beneficial use of each gallon of water, increasing logistic agility, decreasing energy/fuel use, reducing costs, and diminishing the water/environmental footprint.

Sustain the Mission Project (SMP) Decision Support Tool, Office of the Assistant Secretary of the Army for Installations, Energy & Environment October 2009 (1 year): ESG expanded SMP Tool capabilities, providing a user-friendly interface to calculate and analyze the fully burdened cost (FBC) of energy and water based on ESG's FBC fuel methodology. ESG demonstrated the FBC fuel methodology in 2006 and developed an alpha decision support tool for the Army in 2008. ESG's SMP work has supported a full spectrum of Army and joint logistics operations to include combat and stability missions in Iraq and Afghanistan, Emergency Response and Humanitarian Assistance missions in the U.S., and planning for future Army operations.

*ESG served as a subcontractor on this project.