



Assuring Environmental, Health, and Safety Performance in Energy



ICF Consulting is unique in its collaborative approach to helping energy sector participants overcome environmental, health, and safety management challenges. By empowering both our Environmental, Health, and Safety Management experts and our Energy experts we are able to overcome the challenge with technical expertise in all areas. We can help you:

- Evaluate your current level of compliance, recognize weaknesses in your current compliance delivery programs, and identify opportunities for EHS improvement
- Evaluate current systems against industry standards (e.g., ISO 14001, OHSAS 18001, and OSHA VPP)
- Design customized EHS training to increase internal awareness and accountability
- Implement management systems to address EHS impacts within the context of your core business
- Verify EHS performance to assure credibility of external reporting

Organizations in the energy sector realize the increasing need for more effective and efficient management of environmental, health and safety (EHS) issues. In response, many are embracing the systematic approach provided by certified management tools such as the ISO 14001 Environmental Management Systems (EMS) standard, the International Occupational Health and Safety Assessment Series (OHSAS 18001), and the U.S. Occupational Safety and Health Administration's Voluntary Protection Program (OSHA VPP). The expectation is that formal management systems can improve EHS performance and create a collaborative relationship between regulators and the regulated community.

Although, results from hundreds of facilities have proven that EMSs frequently do lead to better procedures, the system is not the desired end point, certified or not. Rather, it is the performance that must remain the driver behind how systems are used and deployed. Because EHS performance does not necessarily improve just because an organization has a certified management system, energy market participants must employ an integrated approach to EHS management systems to ensure that the potential benefits of the systems are realized.

Our Approach

The basis of any good environmental management system (EMS) or health and safety management system (HSMS) is risk management. These risks include threats to the environment, local community, or employees; liabilities and costs of non-compliance; delays in implementing projects or organizational mission; low performance ratings or public image; and damage to stakeholder relationships. ICF Consulting helps organizations establish methods to evaluate these risks, set objectives, plan and implement programs and procedures to manage them, and verify the resulting improved performance.

ICF Consulting develops management systems (MS) solutions unique to each organization based on its characteristics, culture, and existing management processes. Implementing a formal EMS or HSMS model requires a customized and unique approach using these models as building blocks.

ICF Consulting is uniquely well positioned to assist organizations in the energy sector improve their environmental performance. Our experience has taught us to emphasize improved performance, as well as program efficiency and effectiveness beyond "standards". We focus on leveraging common management system attributes through better alignment and integration of the various EHS management tools.

ICF Consulting's environmental qualifications in the electric power sector are extensive. We have been a consultant to government and industry on a range of air regulatory issues including SO₂, NO_x, Hg, and CO₂ emissions. ICF Consulting's expertise includes regulatory design, implementation, and impact analysis. We assist companies in understanding the impact of, and complying with, proposed regulations on their generation fleet.

We draw upon the depth and breadth of our corporate experience in the energy sector, combined with more than 25 years of evaluating and improving EHS management systems and compliance delivery programs, to help companies develop solutions that are tailored to their core environmental and business functions.

Featured Projects

Gap Analysis and EMS Deployment

For a Canadian Power Generation Company, ICF Consulting conducted a gap analysis to assess the ISO 14001 status at two pilot sites—the corporate office and a major generating station. We developed an EMS framework and model to be deployed and adapted at the hydroelectric power generating plants. ICF Consulting helped define the scope of application as well as an appropriate organizational structure. This framework and model was formalized in a corporate ISO 14001 compliant EMS manual. With the model developed, the company then appointed EMS representatives at each plant group and contracted with ICF Consulting to supply a full-time, on-site EMS expert at each plant group to assume the responsibility of ensuring the effective adaptation and deployment of the EMS. ICF Consulting assisted with all phases and aspects of EMS deployment through to the ISO 14001 registration process at four plant groups.

EHS Assurance

ICF Consulting provided EHS assurance assistance at many levels to support one of the world's leading mining company's corporate social responsibility goals including:

- Reviewing annual social and environment reports; identifying strengths and weaknesses in the process for collecting, compiling, and interpreting data; and providing an attestation letter for publication.
- Training managers and EHS staff to monitor conformance with company safety standards that target known causes of serious injuries and fatalities.
- Developing data quality standards to ensure that EHS performance is accurately measured and reported both internally and externally.

Environmental Management Systems Development

ICF Consulting developed a corporate template for EMS implementation and performed EMS implementation planning for two large coal-fired electrical generating stations. Environmental performance improvements focused on the mitigation of global climate change and preservation/restoration of coastal reefs and mangrove forests.

EHS and Social Management System Development

ICF Consulting assisted an international upstream energy company in developing a company-wide management system for EHS and social issues to improve performance, create business value and competitive advantage, and support their corporate reputation with key business partners and host governments. We reviewed the client's current approach to EHS and social issues, then developed a model management system based on international standards to meet a number of key initiatives. We identified three enabling processes for risk management, decision-making, and knowledge management to ensure an effective "fit" with the organization. We also proposed an implementation program; developed core processes and tools; and targeted a number of "quick wins"—where immediate steps could be taken to improve local performance.

ISO 14001 Compliant EMS Implementation

ICF Consulting supported the Sunoco Sarnia (Canada) refinery in the various phases of developing and implementing an EMS in conformance with ISO 14001. We conducted a gap assessment, developed an implementation plan, provided assistance for aspects and impacts identification, conducted training, and selected an auditor for registration.

EHS Performance Verification

For a major US northeast public utility we have a long term relationship providing support to their EHS audit function. Specific tasks have included original development and field testing of environmental protocols for use in their corporate audit function as well as a company-wide environmental self-assessment program; development of health and safety audit protocols; annual update and maintenance of EHS audit protocols; development and presentation of multiple training workshops on conducting self-assessments; development and presentation of a workshop for the corporate audit group on how to effectively audit management systems; providing support in conducting facility audits; and general consultation, as needed.

About ICF Consulting

ICF Consulting is a leading management, technology, and policy consulting firm. Drawing upon extensive industry knowledge, distinguished professionals, and innovative analytics, the firm develops solutions to complex energy, environment, emergency management, community development, and transportation issues. ICF Consulting's approach to these issues is strengthened by its expertise in information technology, organizational improvement, program management, and communications. Since 1969, ICF Consulting has been serving major corporations, government at all levels, and multinational institutions. More than 1,000 employees serve these clients from key business centers in the Americas, Europe, and Asia Pacific.

To reach us or obtain further information about ICF Consulting's services to the energy sector, call us at **703-934-3637**, e-mail us at energy@icfconsulting.com, or visit our Web site at www.icfconsulting.com.

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