

## State Energy Services



ICF International supports state and regional clients by providing economic and technical services and policy analyses that enhance our client's ability to make the best strategic and resource development decisions.

Our integrated suite of forecasts, analyses, and services for state and local agencies include the following:

- Emergency Management
- Supply and Reserve Planning
- Regulatory Planning and Litigation Support
- Environmental Planning
- Public Policy Analysis
- Communications and Outreach

Given economic uncertainties and tightening budgets, will state and other public agencies be ready to deal with emerging issues in the energy markets?

- Energy security and emergency management
- Federal versus State jurisdictional issues
- Deregulation versus re-regulation
- System reliability and transmission congestion
- Environmental improvement
- Energy infrastructure (eg. electric, gas, plants, lines, pipelines)
- Consumer costs
- Utility prudence and financial health

Developing balanced and cost-effective public policies requires a thorough and objective understanding of the needs and perspectives of a diversity of stakeholders. For more than 30 years, ICF International has provided objective analysis and recommendations that have enabled policy makers at the national, state, and local levels to make informed decisions. Our direct experience in the energy industry provides valuable insights in the design and implementation of policies for energy and environmental related issues.

### Featured Projects

#### Developing and Updating State GHG Inventories

ICF helps states prepare their first inventory (e.g., Florida, Texas) or update an existing one (e.g., California) to meet international and national standards. We authored the EPA's Emission Inventory Improvement Program guidance on estimating GHG emissions and understand the methodologies that states use to prepare inventories. We reviewed and revised emission estimates for more than 38 state GHG inventories on behalf of EPA. We are developing a suite of spreadsheet tools with the latest methodologies for estimating emissions at the state level. These tools provide default data and emission factors to enable states to estimate annual emissions.

#### Statewide Energy Infrastructure Crisis Response

ICF designed scenarios that simulated damage to a state's energy infrastructure. Scenarios were designed based upon detailed modeling of the affected infrastructure. We tested the concurrent implementation of the state's Terrorism Response Plan and its Energy Contingency Plan; this enabled the state personnel to work through the multitude of issues surrounding the needs of its citizens without power at the same time as it works with the private sector to restore power. ICF facilitated, controlled, and evaluated the exercise. We performed transmission load flow analysis under multiple scenarios to evaluate potential contingencies and identify critical points of concern on the transmission network.

### Regulatory Planning – Stranded Cost Determination

ICF performed a management audit of Public Service Electric & Gas's stranded cost and restructuring filings with the New Jersey Board of Public Utilities (NJBPU). We supported the staff of the NJBPU during the review proceedings, filing, and approval by estimating the level of stranded costs for PSE&G's generation assets. We reviewed PSE&G's stranded cost recovery proposals and conducted extensive modeling of the electric market in the Mid-Atlantic region and of each specific plant. ICF identified additional generation-specific cost mitigation options and made suggestions based on a review of operations and maintenance cost projections or contract negotiations.

### Environmental Planning – Regional Haze Analysis

ICF supported the Western Regional Air Partnership/Western Governors' Association in analyzing the emissions, and economic impacts of alternative scenarios of controlling the regional haze problem using SO<sub>2</sub> emissions reductions in nine western states and tribal areas. We provided an assessment of the economic impacts of the regulations implemented through a regional SO<sub>2</sub> emissions cap with a backstop market-trading program. Our staff assessed the impacts throughout the economy, including households, major producing sectors, and tribes. We evaluated the cost, compliance, emissions and operating decision impact of renewable energy programs, and energy efficiency options for the Annex requirements.

### State and Regional Petroleum Infrastructure and Distribution System

ICF analyzed the petroleum infrastructure and distribution system in New England for the Massachusetts Division of Energy Resources to establish a baseline for evaluating potential future energy and emergency planning policies. We analyzed trends in petroleum supply and demand, characterized terminal storage facilities and delivery systems, identified potential vulnerabilities, and suggested possible remedies.

### Technical Support to the Strategic Petroleum Reserve

ICF conducts analyses of world petroleum markets and the North American crude oil distribution system using the EnSys WORLD™ model and other SPR models. We also assist the SPR in evaluation of the potential impacts of alternative SPR drawdown and crude oil distribution scenarios on prices, refining, U.S. imports, and the U.S. economy.

### Well Characterization and Evaluation Program for State Oil and Gas Wells

ICF developed a system to review and characterize inactive and marginal oil and gas wells in New York to evaluate the potential risk of the wells becoming financial or environmental liabilities to the state or local communities. We recommended regulatory and technology initiatives to both manage the high-risk well population and prevent the premature abandonment of the state's drilled well resource.

### Regulatory Planning – Infrastructure Development

ICF assisted the state public utility commission in understanding the implications of power plant siting on larger infrastructure and economic issues. The analysis included a detailed review of the statewide power infrastructure including the transmission and gas pipeline infrastructure. Qualitative and quantitative analysis was used to review the potential economic impacts on consumers and producers related to alternate policy decisions. Criteria for evaluating the impacts were considered and recommendations for criteria review for new facility siting were provided.

### Biomass and Other Renewable Electric Power Analysis

ICF assessed the role of biomass co-firing and analyzed legislative and technological barriers to biomass use; developed a biomass business plan for a developer; analyzed the role of biomass in meeting multi-pollutant emission policies; and estimated the penetration of biomass and other renewable fuels in electric power generation.

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## About ICF International

ICF International ([www.icfi.com](http://www.icfi.com)) partners with government and commercial clients to deliver consulting services and technology solutions in defense, energy, environment, homeland security, social programs, and transportation. Combining passion for our work with industry expertise and innovative analytics, we deliver compelling results throughout the entire program life cycle, from analysis and design through implementation and improvement. Since 1969, ICF International has been serving government at all levels, major corporations, and multilateral institutions. More than 1,600 employees serve these clients worldwide.

For more information contact:

Judah Rose  
Phone: 1.703.934.3342  
E-mail: [jrose@icfi.com](mailto:jrose@icfi.com)

Stacey Hohenberg  
Phone: 1.703.218.2504  
E-mail: [shohenberg@icfi.com](mailto:shohenberg@icfi.com)