

NOTE—The Contractor, if a corporation, shall cause the following Certificate to be executed under its corporate seal, provided that the same officer shall not execute both the Agreement and the Certificate.

CERTIFICATE

I, \_\_\_\_\_, certify that I am the \_\_\_\_\_ of the corporation named as Contractor herein; that \_\_\_\_\_, who signed this Agreement on behalf of the Contractor, was then \_\_\_\_\_ of said corporation; and that said Agreement was duly signed for on behalf of said corporation by authority of its governing body and is within the scope of its corporate powers.

\_\_\_\_\_  
(Corporate Seal) (Signature)

NOTE

Financial Institution, if a corporation, should cause the following Certificate to be executed under its corporate seal, provided that the same officer shall not execute both the Agreement and Certificate.

CERTIFICATE

I, \_\_\_\_\_, certify that I am the \_\_\_\_\_ of the corporation named as Financial Institution herein; that \_\_\_\_\_, who signed this Agreement on behalf of the Financial Institution, was then \_\_\_\_\_ of said corporation; and that said Agreement was duly signed for and in behalf of said corporation by authority of its governing body and is within the scope of its corporate powers.

\_\_\_\_\_  
(Corporate Seal) (Signature)

**PART III**

**SECTION J - LIST OF DOCUMENTS, EXHIBITS  
AND OTHER ATTACHMENTS**

**ATTACHMENT 4**

**BASELINE LIST OF APPLICABLE DIRECTIVES**  
(This list may be modified from time to time through deletions or additions)

**DOE DIRECTIVES**

All DOE Directives can be found at the following Internet address:  
<http://www.explorer.doe.gov:1776/htmls/directives.html>

**NECESSARY AND SUFFICIENT  
ENVIRONMENTAL, SAFETY AND HEALTH  
(ES & H) STANDARDS  
FY 1998**

CODE OF FEDERAL REGULATIONS (CFR)

7 CFR 12 - Wetland Identification Criteria

10 CFR 8.4 - Interpretation by the General Counsel: AEC Jurisdiction

10 CFR 835 - Occupational Radiation Protection (Except Sections 101 (c), ALARA Plans and Measures, 402 (b), DOE Laboratory

Accreditation Program for Personal Dosimetry, 901, General Employee Training, and 902, Radiological Workers Training)

10 CFR 1021 - DOE NEPA Implementing Regulations, Subtitle B - DOE Decision-making

10 CFR 1021 - DOE NEPA Implementing Regulations, Subtitle D - Typical Classes of Actions (Including ref. Appendices A-D)

27 CFR, Subchapter A - Liquors

OSH Act of 1970, Section 5 (a)(1) - General Duty Clause

**NECESSARY AND SUFFICIENT  
ENVIRONMENTAL, SAFETY AND HEALTH  
(ES & H) STANDARDS  
FY 1998**

29 CFR 1910 - Occupational Safety and Health Standards for General Industry

29 CFR 1926 - Occupational Safety and Health Standards for the Construction Industry

33 CFR 320 - General Regulatory Policies

33 CFR 323 - Permits for Discharges of Dredged or Fill Material into Waters of the United States

33 CFR 325 - Processing of Department of the Army Permits

33 CFR 328 - Definition of Waters of the United States

33 CFR 330 - Nationwide Permits

36 CFR 63 - Determination of Eligibility for Inclusion in the National Reg. of Historic Places

36 CFR 65 - National Historic Landmarks Program

36 CFR 78 - Waiver of Federal agency responsibilities under section 110 of the National Historic Preservation Act

36 CFR 79 - Curation of Federally-owned and administered archaeological collections.

36 CFR 800 - Protection of Historic and Cultural Properties

40 CFR 50 - National Primary and Secondary Ambient Air Quality Standards

40 CFR 61- National Emission Standards for Hazardous Air Pollutants

40 CFR 66 - Assessment and Collection of Noncompliance Penalties by EPA

40 CFR 79 - Registration of Fuels and Fuel Additives

40 CFR 82 - Protection of Stratospheric Ozone

**NECESSARY AND SUFFICIENT  
ENVIRONMENTAL, SAFETY AND HEALTH  
(E, S & H) STANDARDS  
FY 1998**

40 CFR 88 - Clean-Fuel Vehicles
40 CFR 110 - Discharge of Oil
40 CFR 112 - Oil Pollution Prevention
40 CFR 113 - Liability Limits for Small Onshore Storage Facilities
40 CFR 116 - Designation of Hazardous Substances
40 CFR 117 - Determination of Reportable Quantities for Hazardous Substances
40 CFR 122 - EPA Administered Permit Programs: The National Pollutant Discharge Elimination System (NPDES)
40 CFR 131 - Water Quality Standards
40 CFR 141 - National Primary Drinking Water Regulations
40 CFR 142 - National Primary Drinking Water Regulations Implementation
40 CFR 166 - Exemption of Federal and State Agencies for use of Pesticides under Emergency Conditions
40 CFR 171 - Certification of Pesticide Applicators
40 CFR 260-270 - Resource Conservation and Recovery Act (RCRA)
40 CFR 261 - Identification and Listing of Hazardous Waste
40 CFR 262 - Standards Applicable to Generators of Hazardous Waste
40 CFR 268 - Land Disposal Restrictions
40 CFR 273 - Standards for Universal Waste Management
40 CFR 279 - Standards for the Management of Used Oil
40 CFR 302 - Designation, Reportable Quantities, and Notification (CERCLA)
40 CFR 355 - Emergency Planning and Notification (CERCLA)
40 CFR 370 - Hazardous Chemical Reporting: Community Right -To-Know
40 CFR 401 - General Provisions - Effluent Guideline and Standards

NECESSARY AND SUFFICIENT  
 ENVIRONMENTAL, SAFETY AND HEALTH  
 (ES & H) STANDARDS  
 FY 1998

40 CFR 403 - General Pretreatment Regulations for Existing and New Sources of Pollution

40 CFR 763 - Subpart G - Asbestos Abatement Projects

43 CFR 7 - Protection of Archaeological Resources

49 CFR 107-199 - Transportation - Hazardous Materials Regulations

49 CFR 383-399 - Transportation - Federal Motor Carrier Safety Regulations

50 CFR 17 - Endangered and Threatened Wildlife and Plants

50 CFR 225 - Federal/State Cooperation in the Conservation of Endangered and Threatened Species

50 CFR 402 - Interagency Cooperation - Endangered Species Act of 1973

50 CFR 424 - Listing Endangered and Threatened Species and Designating Critical Habitat

50 CFR 450 - General Provisions - Endangered Species Exemption Process

50 CFR 451 - Application Process

UNITED STATES CODE (USC)

7 USC 136 et seq. - Environmental Pesticide Control Act

7 USC 136 et seq. - Federal Insecticide, Fungicide, and Rodenticide Act

15 USC 2601 et seq.- Toxic Substances Control Act, Title II (Asbestos Hazard Emergency Response)

NECESSARY AND SUFFICIENT  
 ENVIRONMENTAL, SAFETY AND HEALTH  
 TEST & PERFORMANCE STANDARDS  
 BY 1998

16 USC 431 et seq. - Antiquities Act of 1906
16 USC 470 et seq. - Archaeological Resources Protection Act of 1979 (ARPA)
16 USC 470 et seq. - National Historic Preservation Act of 1966 (NHPA)
16 USC 661 et seq. - Fish and Wildlife Coordination Act
16 USC 668 et seq. - Bald and Golden Eagle Protection Act
16 USC 703 et seq. - Migratory Bird Treaty Act
16 USC 1531 et seq. - Endangered Species Act of 1973
33 USC 1251, et seq. - Clean Water Act
33 USC 1321 - Clean Water Act, Section 311 - Oil and Hazardous Substances Liability
42 USC Sec. 300f, et seq - Safe Drinking Water Act
42 USC 6901, et seq. - Resource Conservation and Recovery Act (RCRA)
42 USC 7401, et seq. - Clean Air Act & Amendments
42 USC 9602 - CERCLA, Title I, Section 102 - Reportable Quantities and Additional Designations
42 USC 9603 - CERCLA, Title I, Section 103 - Notices, Penalties
42 USC 11000 - 11050 - Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA)
DEPARTMENT OF ENERGY (DOE)

NECESSARY AND SUFFICIENT  
 ENVIRONMENTAL, SAFETY AND HEALTH  
 (E, S & H) STANDARDS  
 BY 1998

DOE Interim Notice 441.1 - Radiological Protection for DOE Activities (Except Sections 6.c., Core Training Materials, and 6.g., DOE

Laboratory Accreditation Program for Personal Dosimetry)

EXECUTIVE ORDER (EO)

EO 11593 - Protection and Enhancement of Cultural Environment 1971

EO 11738 - Providing for Administration of the Clean Air Act and the Federal Water Pollution Control Act with Respect to Federal Contracts, Grants or Loans

EO 11988 - Floodplain Management

EO 11990 - Protection of Wetlands

EO 12114 - Environmental Effects Abroad of Major Federal Actions

EO 12843 - Procurement Requirements and Policies for Federal Agencies for Ozone-Depleting Substances

EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations

OTHER FEDERAL STANDARDS

Archaeological and Historic Preservation Act of 1974 (AHPA)

EPA Air Quality Standards

Federal Noxious Weed Act

NECESSARY AND SUFFICIENT  
 ENVIRONMENTAL SAFETY AND HEALTH  
 (ES & H) STANDARDS  
 BY 1998

CODE OF COLORADO REGULATIONS (CCR)

2 CCR 406-8 Chapter 10, Article 2 and 3 - Non-Game Wildlife

5 CCR 1001. 1 - 21 - All Colorado Department of Public Health & Environment, Air Quality Control Commission Regulations

5 CCR 1001-10, Regulation No. 8 - Control of Hazardous Air Pollutants

5 CCR 1001-19 - Control of Emission of Ozone Depleting Compounds

5 CCR 1002-2 - State Discharge Permit System

5 CCR 1002-3 - Effluent Limitations

5 CCR 1002-7- Sewage and Storm Sewers

5 CCR 1002-8 - Surface Water Standards

5 CCR 1002-20 - Pretreatment Regulations

5 CCR 1003 -1 - Primary Drinking Water Regulations

5 CCR 1003-6 - Guidelines on Individual Sewage Disposal Systems

6 CCR 1007-1, Part 4, Sections 33-38 - Protection Against Radiation, Waste Disposal

6 CCR 1007-1, Part 17 - Transportation of Radioactive Material

6 CCR 1007-3 - Colorado Hazardous Waste Regulations

7 CCR 1101-14 - USTs and ASTs

NECESSARY AND SUFFICIENT  
 ENVIRONMENTAL, SAFETY AND HEALTH  
 (ES & H) STANDARDS  
 FY 1998

8 CCR 1507-1 - Colorado Operation of Commercial Vehicles and Transportation of Hazardous Materials
8 CCR 1507-7 - Colorado Hazardous Materials Route Designation
8 CCR 1507-8 - Colorado Hazardous Materials Transportation Reporting
8 CCR 1507-9 - Colorado Transporting and Shipping of Hazardous Materials
COLORADO REVISED STATUTES (CRS)
8 CRS 20.5, Parts 1-3 - Petroleum Storage Tanks
25 CRS 7 - Air Quality Control
25 CRS 8 - Water Quality Control
25 CRS 10 - Individual Sewage Disposal Systems Act
25 CRS 15, Part 1, 3 - State Hazardous Waste Management Program
25 CRS 15, Part 1, 4 - Infectious Waste
29 CRS 22 - Hazardous Substances Incidents
33 CRS 2 - Nongame and Endangered Species Conservation
33 CRS 6 - Law Enforcement and Penalties
35 CRS 5 - Pest Control Districts
35 CRS 5.5 - Colorado Weed Management Act

NECESSARY AND SUFFICIENT  
ENVIRONMENTAL, SAFETY AND HEALTH  
(E, S & H) STANDARDS  
FY 1998

35 CRS 9 - Pesticide Control Act

35 CRS 10 - Pesticide Applicators Act

37 CRS 90 - 101, et seq. - Colorado Ground Water Management Act

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS  
(ACGIH)

ACGIH Threshold Limit Values for Chemical Substances and Physical Agents (Latest Edition)

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI Z117.1 - Standard for Confined Spaces

ANSI Z136.1 -1993 - Lasers

ANSI Z.136.1 - Safe Use of Lasers

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA - National Fire Codes

NECESSARY AND SUFFICIENT  
 ENVIRONMENTAL, SAFETY AND HEALTH  
 (E, S & H) STANDARDS  
 BY 1998

NATIONAL INSTITUTE OF HEALTH (NIH)

NIH - Guidelines for Research Involving Recombinant DNA Molecules

INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS

Uniform Building Code 1994 (UBC) (As Adopted and Amended by the Authority Having Jurisdiction)

Uniform Fire Code 1994 (UFC) (As Adopted and Amended by the Authority Having Jurisdiction)

OTHER LOCAL STANDARDS

Consolidated Mutual Water Company Rules

Jefferson County Dept. of Health and Environment, Individual Sewage Disposal Sys. Reg.

Metro Wastewater Reclamation District Rules and Regulations, as amended, 4/2/96

Pleasant View Water and Sanitation District Rules and Regulations

West Metro Fire Rescue Amendments to the Uniform Fire Code

**LAWS, REGULATIONS, AND DEPARTMENT OF ENERGY DIRECTIVES**  
**DEPARTMENT OF ENERGY ORDERS**  
 REVISED: 11/10/97

The DOE Orders listed below are applicable, in whole or in part, and in accordance with Clause I-49, 970.5204-78, Laws, Regulations, and DOE Directives.

ORDER	DATE	TITLE
DOE O 130.1	09/29/95	Budget Formulation Process
DOE O 151.1 Change 2	09/25/95 08/21/96	Comprehensive, Emergency Management System
DOE O 200.1	09/30/96	Information Management Program
DOE O 225.1 Change 1 Change 2	09/29/95 10/26/95 04/26/96	Accident Investigations
DOE O 230.1 Change 2	09/30/95 11/07/96	Environmental, Safety, and Health Reporting
DOE O 230.1A	08/01/97	Occurrence Reporting and Processing of Operations Information
DOE O 250.1	10/16/95	Directives System
DOE O 350.1	09/30/96	Contractor Human Resources Management
DOE O 413.1	12/06/95	Management Control Program
DOE O 430.1 Change 1	08/24/95 10/26/95	Life-Cycle Asset Management
DOE O 430.2	06/13/96	In-House Energy Management
DOE O 470.1	09/28/95	Safeguards and Security Program
DOE O 481.1	09/30/96	Work for Others (Non-Department of Energy Funded)
DOE O 534.1	09/29/95	Accounting
DOE O 1220.1A	04/09/92	Congressional and Intergovernmental Affairs
DOE O 1240.2B Change 1	08/21/92 09/03/92	Unclassified Visits and Assignments by Foreign Nationals

ORDER	DATE	TITLE
DOE O 1350.1 Change 1	10/28/81 03/26/84	Audio and Exhibit Management
DOE O 1360.2B	05/18/92	Unclassified Computer Security Program
DOE O 1430.1D	06/30/94	Scientific and Technical Information Management
DOE O 1450.4	11/12/92	Consensual Listening-In To or Recording Telephone/Radio Conversations
DOE O 1500.3 Change 1	11/10/86 02/05/87	Foreign Travel Authorization
DOE O 2030.4B	05/18/92	Reporting Fraud, Waste, and Abuse to the Office of Inspector General
DOE O 2100.8A	01/27/93	Cost Accounting, Cost Recovery, and Interagency Sharing of Information Technology Facilities
DOE O 2110.1A Change 1	07/14/88 05/18/92	Pricing of Departmental Materials and Services
DOE O 2300.1B	06/08/92	Audit Resolution and Followup
DOE O 2320.1C	05/18/92	Cooperation with the Office of the Inspector General
DOE O 2321.1B	05/14/92	Auditing of Programs and Operations
DOE O 5632.1C	07/15/94	Protection and Control of Safeguards and Security Interests
DOE O 5700.7C	05/18/92	Work Authorization System
DOE O 5800.1A	05/18/92	Research and Development Laboratory
Accounting Practices and Procedures Handbook (APPH) Chapter V	05/02/83	Inventories
APPH Chapter X	06/30/80	Product Cost Accounting

**PART III**  
**SECTION J - LIST OF DOCUMENTS, EXHIBITS**  
**AND OTHER ATTACHMENTS**

**ATTACHMENT 5**

**PERFORMANCE-BASED FEE AND PERFORMANCE OBJECTIVES**

**For the Period of Performance Beginning on**  
**TBD**

As described in the clause entitled, "Performance-Based Fee and Performance Objectives," in Section H, DOE will implement a performance-based system to measure the progress of the Contractor in satisfying the requirements in the Statement of Work and other requirements of the Contract. Performance-based fee will be linked to the achievement of performance objectives and the completion of milestone activities.

**PART III**

**SECTION J - LIST OF DOCUMENTS, EXHIBITS  
AND OTHER ATTACHMENTS**

**ATTACHMENT 6**

**RESERVED**

SEE PAGE 169 FOR ATTACHMENT 7.

**PART III**  
**SECTION J - LIST OF DOCUMENTS, EXHIBITS**  
**AND OTHER ATTACHMENTS**

**ATTACHMENT 7**

**STATEMENT OF WORK**  
**REQUEST FOR PROPOSALS**  
**NREL MANAGEMENT AND OPERATING CONTRACT**

**I. Introduction**

The Management and Operating Contract for the National Renewable Energy Laboratory (NREL) is a Performance-based Management Contract (PBMC). It reflects the application of performance-based contracting approaches which emphasize results and minimize "how to" performance descriptions. The Contractor has responsibility for total performance under the Contract, including determining the specific methods for accomplishing the work effort, performing quality control, and assuming accountability for the tasks listed in IV below. The performance-based requirements of this Contract are broadly set out in this Statement of Work and reflect the Department of Energy's (DOE) minimum needs and expectations for Contractor performance. Accordingly, this PBMC provides flexibility to the Contractor in managing and operating NREL.

In a Performance-Based Management Contract, it is the Contractor's responsibility to develop and implement innovative approaches and adopt practices that foster continuous improvement in accomplishing the mission of NREL. DOE expects the Contractor to produce effective and efficient management structures, systems, and operations that challenge the status quo while maintaining high levels of quality and safety in accomplishing NREL's assigned mission. The Contractor shall conduct all work in a manner that continually improves productivity, minimizes waste, and fully complies with all applicable laws, regulations, and terms and conditions of the Contract.

**II. Background**

The Solar Energy Research Institute (SERI) was established by the Solar Energy Research, Development, and Demonstration Act (Public Law 98-473) to perform research, development, and related functions in support of the nation's economic and energy goals. In fulfilling its mandate, SERI conducted activities in basic and applied sciences, resource assessment, and technology transfer across a broad spectrum of technical disciplines. SERI became the NREL in 1991 in recognition of its success in increasing the technical viability and economic competitiveness of renewable energy in partnership with the private sector.

NREL is a primary contributor to the accomplishment of the mission of DOE's Energy Efficiency and Renewable Energy Program. It is a world-class facility with major emphasis on the advancement and adoption of renewable energy technologies and practices. NREL activities also include efforts to advance and facilitate adoption of energy efficient end-use technologies.

NREL is a Federally Funded Research and Development Center (FFRDC) established in accordance with the Federal Acquisition Regulation Subpart 35-017. In fulfillment of its FFRDC obligations, NREL is a strategic partner with the DOE and is charged with assisting the nation with scientific research, analysis, and systems development. Additionally, NREL is responsible for integrating the expertise and outlook of industry,

academia, and the DOE to solve complex technical problems that cannot be solved by any one group alone and for providing unbiased information to these entities to advance the nation's interests.

In carrying out its assigned mission, NREL integrates work across three domains: One, NREL's work covers energy from supply through conversion/storage/delivery to end-use -- the Energy Pathway; Two, NREL's work encompasses the full range of technology development from research and development through demonstration to facilitating deployment of these technologies in both US and international markets and; Three, NREL's work may be performed using NREL in-house capabilities and/or capabilities external to NREL.

To maintain its position as a world-class laboratory, NREL is expected to carry out its mission through a variety of partnerships with industries, universities and other research establishments. In addition, collaboration with other federal agencies and DOE national laboratories is expected.

Near, mid, and long-term RD&D is performed consistent with DOE program guidance and includes activities important to all sectors of the nation's economy: industrial; transportation; residential/commercial; and utility. To implement its mission priorities NREL must become a partner with DOE in strategic and planning activities. NREL must integrate and respond to shifts in priorities that affect energy pathways, maintain and enhance its world-class competencies to carry out the associated RD&D agendas, and work as a leader and effective partner with targeted industries. In so doing, NREL must conduct all of its activities consistent with the highest standards of environment, safety, and health.

### **III. Scope**

Under this Performance-Based Management Contract, the Contractor shall furnish the necessary personnel, facilities, equipment, materials, supplies, and services (except those provided by the government) to ensure NREL can achieve its assigned mission. The Contractor shall, when directed by DOE and may, but only when authorized by DOE, enter into subcontracts for the performance of any part of the work under this Contract.

NREL has the responsibility to advance the nation's strategic interests by developing and facilitating deployment of technologies, capabilities, and information to the private sector. To this end, NREL must be maintained and enhanced with a broad capability in the basic and applied sciences, technology and market analysis, policy support, business and laboratory support, and facility operations. In executing its assigned mission, the Contractor is responsible for all aspects of the management and operation of NREL including planning and work execution. The DOE assigns NREL its mission priorities and reviews and approves NREL work activities.

The Contractor shall manage and operate NREL to conduct a spectrum of basic and applied research, development and demonstration activities and to facilitate deployment of these technologies in both US and international activities. Important disciplines in which NREL must be proficient include, but are not limited to, materials science, physics, chemistry, biology, engineering, analytical support, energy economics, technology transfer, program and business planning, education, and public outreach. This proficiency must include the ability to integrate efficiency and renewable technologies with conventional fuel supply sources. The Contractor also shall serve as an advisor to the DOE on the energy issues for which it has cognizance.

The Office of Energy Efficiency and Renewable Energy is the primary sponsor of work at NREL. However, NREL is expected to perform work for or with any DOE program sponsor (e.g., such as the Office of Energy Research and the Office of Fossil Energy), federal, state, or local entity, private sector company or research

institution, or academic institution which supports or is related to DOE's mission at NREL, as approved by the Contracting Officer.

#### **IV. Performance Requirements**

Work shall be conducted by the Contractor, utilizing Contractor personnel, NREL facilities, and any other outside subcontracted sources in accordance with the laws of the United States, policies, procedures, and regulations of DOE and conforming procedures established by the Contractor, and subject to the provisions of this Contract. Specific program content shall be determined by DOE, after consultation with the Contractor, and shall be conducted in accordance with approved work authorizations from the Contracting Officer (see Section VI and the terms and conditions of the Contract).

The following elements are considered to be necessary to the successful operation and management of NREL:

1. **Science and Technology** - The Contractor shall conduct energy research, development, demonstration, and facilitation of private sector deployment activities leading to viable technology options that span energy pathways from supply options through conversion and delivery to end use applications.

The Contractor is expected to integrate NREL work across all domains to shape the set of RD&D activities.

The Contractor shall establish and conduct basic and applied energy research, development, demonstration, and facilitation of private sector deployment activities contributing significantly to the nation's international competitiveness in energy technologies. In accomplishing the Science and Technology element, the Contractor is expected, at a minimum, to perform the following key items:

- a. Formulate an optimized and integrated set of proposed RD&D activities to be submitted to DOE;
- b. Implement and pursue the DOE approved optimized and integrated set of activities.

2. **Leadership** - The Contractor shall provide mission and institutional leadership that promotes NREL's national and international standing, ensures intellectual excellence, and fosters responsible stewardship for the DOE resource.

The Contractor shall provide the intellectual leadership and management expertise necessary and appropriate to manage, operate and staff the National Renewable Energy Laboratory in fulfillment of its assigned mission. In accomplishing the leadership element, the Contractor shall maintain accountability for the following:

- a. Resource allocation, program coordination, strategic planning, stakeholder involvement, and accomplishment of all tasks identified in the statement of work;
- b. Ensuring the quality of its RD&D, and its operations; and
- c. Maintaining and enhancing the national and global standing of NREL.

3. **Environment, Safety and Health** - The Contractor shall ensure that NREL protects the safety and health of the work force and the community, and protects the environment. The Contractor is responsible for the safety and health of workers and the public and the protection of the environment.

In accomplishing the ES&H element, the Contractor shall:

- a. Clearly communicate roles, responsibilities, and authorities of line managers and employees for ES&H;
  - b. Establish effective management systems to identify and mitigate risks;
  - c. Ensure adequate ES&H organization staffing and activity funding; and
  - d. Adopt the Integrated Safety Management System as the basis for NREL's ES&H program.
4. **Deployment, Outreach and Communication** - The Contractor shall increase awareness of energy technologies and facilitate their deployment through the implementation of effective technology transfer, technical assistance, educational, and communication activities to benefit customers and stakeholders.

The Contractor shall be responsible for working with the private sector to facilitate the deployment of energy technologies, increase public awareness and understanding of energy technologies, and provide technical, educational, and other assistance to customers and stakeholders. In accomplishing the Deployment, Outreach and Communication element, the Contractor, at a minimum, shall:

- a. Work with the private sector to facilitate deployment of energy technologies in both US and international markets and establish and maintain an aggressive program for outreach and communications;
  - b. Contribute to the development of primary and secondary educators' and students' knowledge in energy issues; and
  - c. Ensure that the NREL Visitor Center facilitates DOE energy interests with industry, community, and educators.
5. **Laboratory Viability** - The Contractor shall ensure the long-term viability of NREL through enhancement of institutional visibility and assuring retention of core scientific and business competencies and facility capability.

The Contractor shall be responsible for fostering the attributes of NREL that ensures its long-term institutional viability and meets its obligations under the FFRDC designation. In accomplishing the Laboratory Viability element, the Contractor, at a minimum, shall:

- a. Recruit and retain highly qualified scientific, engineering and support staff ;
- b. Conduct a focused Laboratory Directed Research and Development program that enhances DOE's likelihood of successfully meeting its energy goals;
- c. Maintain and expand NREL's research and support facilities and capabilities to ensure long-term facility availability and flexibility;
- d. Develop, maintain, and enhance professional relationships that broadly promote scientific