PERFORMANCE WORK STATEMENT (PWS)

EPA Programs for Energy Supply and End Use - Technical, Policy, Programmatic and Analytical Support

Note that this sample has been revised from the source document on the Government Point of Entry as necessary to align formatting and applicable FAR procedures.

May 20, 2020

1. General: This is a non-personal service Multiple Award Blanket Purchase (MA-BPA) to provide the Environmental Protection Agency (EPA) programs for energy supply and end use, technical, policy, programmatic and analytical support.

1.1. Description of Services/Introduction: The contractor shall provide all personnel, equipment, supplies, facilities, transportation, tools, materials, supervision, and other items and non-personal services necessary to perform technical, policy, programmatic and analytical support to EPA's program for energy supply and end use as defined in this PWS except for those items specified as Government furnished property and services. The contractor shall perform to the standards in this BPA.

1.2. Background: The mission of the U.S. Environmental Protection Agency's Climate Protection Partnerships Division (CPPD) is to protect public health and the environment while fostering economic growth by accelerating market and policy transformation in the energy sector and empowering individuals and organizations to reduce air emissions.

Significant cost-effective opportunities exist for reducing emissions and energy waste from the energy sector (supply and end-use). Some opportunities arise from improving the efficiency of energy generation processes or energy end-use, while others involve replacing carbon-intensive fuels with less-carbon-intensive fuels to generate energy. These opportunities can be found in all scales of energy generation and consumption in utility, commercial, and end-use sectors.

The new BPA will continue to assess opportunities for cost-effective technology applications, analyzing the potential barriers, and undertaking program activities to overcome the identified barriers.

In addition to these clean energy supply technology activities, EPA also seeks to encourage GHG emissions management through standard corporate GHG accounting and inventory practices and application of best GHG mitigation practices. The Center for Corporate Climate Leadership provides interested companies and organizations with the tools to assess and mitigate their GHG emissions with demonstrated expertise in GHG management, and helps set the standard for GHG management and leadership through recognition of market leaders.

PROGRAM AREAS CPPD consists of five branches: Energy Supply & Industry Branch, State & Local Branch, ENERGY STAR Commercial & Industrial Branch, ENERGY STAR Residential Branch, and the ENERGY STAR Labeling Branch. *This PWS primarily*

focuses on two CPPD Branches: Energy Supply and Industry Branch (ESIB) and the State and Local Branch (SLB).

ENERGY SUPPLY AND INDUSTRY BRANCH (ESIB) ESIB is responsible for a range of successful, non-regulatory voluntary programs and initiatives that reduce emissions by creating and expanding markets for clean energy (distributed generation, renewable energy and green power, combined heat and power, energy efficiency, energy storage and other clean energy options). ESIB's programs (i.e., Center for Corporate Climate Leadership, Combined Heat and Power Partnership, Green Power Partnership) are forging innovative public-private partnerships for addressing U.S. greenhouse gas (GHG) emissions while helping to reduce energy needs, increase energy security and reliability, and promoting economic development. The primary goal of these programs is to cost-effectively reduce emissions of GHG and other air emissions while providing additional benefits to ESIB partners and other clean energy stakeholders in the form of reduced energy costs, enhanced recognition and a smaller corporate emissions footprint.

To achieve this goal, ESIB works to remove the barriers to investments in clean energy that prevent cost-effective policies, programs and projects from reaching their full potential. ESIB partners, who also assist ESIB in addressing the policy, financing, and programmatic barriers to broader deployment of clean energy technologies, include: the private sector, ranging from Fortune 500 to small businesses; colleges and universities; non-profit organizations; investor, publicly and cooperatively owned utilities; regulatory commissions; federal, state, and local government agencies; and Native American tribes.

ESIB programs include:

Center for Corporate Climate Leadership The Center for Corporate Climate Leadership serves as a resource center to help organizations of all sizes measure and manage their emissions. The Center provides: technical tools, ground-tested guidance, educational resources, and opportunities for information sharing and peer exchange among organizations interested in reducing their emissions footprint. The Center supports the following activities for organizations looking to expand their work in the areas of GHG measurement and management: joint recognition program; supply chain emissions management; strategic partnerships and engagements; and promotion of best practices and technologies in collaboration with other EPA programs and other organizations.

Combined Heat and Power (CHP) Partnership The CHP Partnership is a voluntary program to reduce the environmental impact of power generation by promoting the use of CHP. CHP is an efficient, clean and reliable approach to generating power and thermal energy from a single fuel source. EPA's CHP Partnership program works to encourage end users to evaluate and implement efficient CHP projects and increase knowledge of CHP systems and their environmental and economic benefits among: state, local and federal policymakers, state permitting authorities; and engineers, architects and the

sustainable design community. The Partnership works closely with energy users, the CHP industry, state and local governments and other stakeholders to identify and remove obstacles to, and raise awareness of, investments in CHP and support the development of new projects and promote their energy, environmental and economic benefits.

Green Power Partnership (GPP) EPA's Green Power Partnership encourages U.S. organizations to voluntarily use green power to reduce the environmental impacts associated with conventional electricity use. Partners include a wide variety of leading organizations such as Fortune 500 companies, retail and manufacturing businesses, colleges and universities, local, state and federal governments, and trade associations. The Green Power Partnership establishes minimum use benchmarks usage levels and provides Partners with information and recognition for their activities. The partnership program encourages new non-residential electricity customers to use green power and existing Partners to increase their market support with targeted outreach, recognition, and limited technical assistance as well as updating and improving credible market standards.

STATE AND LOCAL BRANCH (SLB) SLB works with state, local and tribal governments to develop and implement strategies for using environmental and energy policies and programs to integrate clean energy into a low-cost, clean, reliable energy system that reduces emissions and addresses local priorities. Investing in energy strategies that lower emissions can be an effective way for state, local and tribal governments to achieve multiple goals: improving air quality and public health, strengthening their energy systems, reducing greenhouse gas emissions and saving money.

SLB's State and Local Energy and Environment Program offers free tools, data and technical expertise about energy strategies, including energy efficiency, renewable energy and other emerging technologies, to help state, local and tribal governments achieve their environmental, energy and economic objectives. While many of these resources were developed for state and local governments, tribes may also find them useful. SLB's Heat Island Reduction Program works with communities, states, public officials, industry representatives, researchers, and others to identify opportunities for implementation of heat island reduction strategies. SLB engages with these partners through analysis, technical assistance, targeted expertise, written guidance and peer exchange opportunities to help develop cost-effective air quality strategies, policies and programs for state and local officials.

SLB programs include:

State and Local Energy and Environment Program

EPA's State and Local Energy and Environment Program provide technical assistance, analytical tools, and peer exchange opportunities to state, local, and tribal governments. This technical assistance includes support for assessing the

options and benefits of actions to reduce emissions, such as policies and initiatives that promote renewable energy, energy efficiency, and related clean technologies, and for integrating the impacts of state energy efficiency and renewable energy policies and programs into state planning. The focus audience for the State and Local Energy and Environment Program is state, local, and tribal energy and environmental officials and agencies, as well as state public utility regulators, the heat island community, and energy efficiency practitioners.

Heat Island Reduction Program EPA's Heat Island Reduction Program works with communities, states, public officials, industry representatives, researchers, and others to identify opportunities for implementation of heat island reduction strategies. SLB engages with these partners through analysis, technical assistance, targeted expertise, written guidance and peer exchange opportunities to help develop cost-effective air quality strategies, policies and programs for state and local officials.

OTHER PROGRAMS In addition to supporting the CPPD branches specified above, EPA envisions the need to support other related Federal, Agency, and CPPD programs including but not limited to: CPPD Immediate Office, ENERGY STAR Residential Branch, ENERGY STAR Labeling Branch, ENERGY STAR Commercial & Industrial Branch, EPA's Indoor airPLUS (IAP) Program (a labeling program for indoor air quality aligned with ENERGY STAR Certified Homes), Water Sense, Stratospheric Protection Division, Clean Air Markets Division, Climate Change Division, AgSTAR, Landfill Methane Outreach Program, Wastewater Management, RE-Powering America's Land, and U.S. DOE Home Performance with ENERGY STAR Program.

ENERGY STAR Product Labeling Branch The ENERGY STAR Products Branch is responsible for development and maintenance of residential and commercial product specifications in more than 75 product categories, as well as for the development of underlying strategies and tools to increase their adoption in the marketplace. The program works through a voluntary and open stakeholder process that balances the input of multiple constituents including manufacturers, utilities, environmental organizations, industry associations and international governments and unions. In addition, the Branch oversees a third-party certification and verification process to ensure market integrity.

ENERGY STAR Residential Branch The ENERGY STAR Residential Branch is responsible for the development, maintenance and promotion of ENERGY STAR specifications for single family, multi-family low rise, manufactured, and high rise multifamily new construction homes. In addition, the Branch is responsible for the development and maintenance of the ENERGY STAR Home Advisor and the Home Energy Yardstick. The Branch also seeks educate and empower homeowners with information about actions they can take to improve their home's efficiency through the Seal and Insulate with ENERGY STAR and ENERGY STAR Verified HVAC Installation programs, as well as to support whole-house retrofit work, through Home Performance with ENERGY STAR®, which is currently implemented by the U.S. Department of Energy.

ENERGY STAR Commercial and Industrial Branch The ENERGY STAR Commercial and Industrial Branch is responsible for the development, maintenance and promotion of ENERGY STAR tools and resources to help businesses determine cost-effective approaches to managing energy use in their buildings and plants. These resources include ENERGY STAR Portfolio Manager®, an online tool that is used to measure and track the energy performance of nearly 500,000 commercial buildings—representing 50 percent of all commercial floor space across the nation. Through ENERGY STAR, the Branch provides guidance on strategic energy management to a wide range of businesses in the private sector—from commercial properties such as hospitals, schools, and offices, to industrial facilities such as cookie and cracker bakeries and integrated steel mills—enabling them to save energy, increase profits, and strengthen their competitiveness.

Other clean energy opportunities include, but are not limited to:

Distributed Generation EPA is focused on encouraging clean, high-efficiency distributed energy generation, including electrical and thermal. Activities will include: addressing regulatory/permitting barriers; working with state agencies on output-based approaches to air regulation; assessing grid integration and smart grid implications; leveraging opportunities through the trans active energy and environmental benefit marketplace; engaging in standards development; and, evaluating of the performance and potential of existing and new technologies for industrial, commercial and/or residential markets.

Renewable Energy EPA encourages the development of renewable energy markets and project development for both electric- and thermal-based technologies. Activities will include: addressing cost barriers by investigating markets for residential, mid-scale, and utility- scale markets and renewable technologies, and utility-scale renewable technologies, including enabling grid infrastructure and power storage applications; evaluating of regulatory and technical barriers to transmission of renewable energy; renewable energy financing; analysis of the environmental benefits of renewable portfolio standards; engaging in standards development; and the removing permitting/siting barriers for renewable energy plants and projects.

Finance and Investment

EPA encourages efforts to finance and invest in activities, organizations, and assets that protect public health and the environment by increasing resilience and reducing emissions. In addressing barriers to clean energy investments and cost-effective GHG management, EPA understands that finance and investment decisions are often critical, and investors have opportunities to influence the organizations they invest in. Investors are developing disclosure standards to inform risk management and long-term benefit calculations. Additionally, a growing array of creative financing options is driving deployment of resilience and emission reduction activities. Activities in this area will include: assessing trends and metrics, evaluating data and activities, recognition, and outreach and engagement.

Other Clean Energy Technologies EPA is interested in identifying innovative opportunities for electric and gas utilities as well as end-users to reduce their corporate GHG emissions and building and facility energy use through more efficient use of energy, switching to cleaner fuels, co-firing, or other means including the development and deployment of storage and transportation electrification (electric vehicles and electric vehicle charging infrastructure) to advance and support clean energy technologies.

1.3. Objectives: The objective of this Statement of Work (PWS) is to garner technical, analytical, regulatory, administrative, recruiting, and customer service support to effectively implement the range of CPPD and other EPA programs and activities including, but not limited to, energy supply and end use. This support shall be provided to meet the goal of protecting public health and reducing air emissions.

1.4. Scope: Support to ESIB under this PWS shall include: the provision of long-term and short-term technical assistance and customer support; marketing of its programs and recruiting new partnership prospects; assistance in recognition opportunities; and the development of analyses to support clean energy use and corporate GHG emissions accounting, reporting and reductions. Work under this BPA shall also include investigation of clean energy technologies and utility policy options such as those in the energy efficiency, energy storage, renewable energy, distributed generation, renewable heating and cooling, green power, combined heat and power, and demand response sectors; tracking and trading mechanisms; and development of new and innovative strategies for reducing GHG emissions such as energy attribute certifications (i.e., RECs), carbon offsets, carbon neutral programs, energy efficiency credits, clean energy set-asides, including other mechanisms and instruments to reduce GHG emissions; and new tools and resources for helping companies reduce GHG emissions from their supply chains, assess materiality of risks from GHG emissions, and communicate findings to different stakeholders, including the investor community.

Support to SLB under this PWS shall include: the provision of policy, analytical, scientific and communications expertise (including web design, social media, graphic design and other approaches) regarding a range of environmental and energy topics particularly as they influence GHG and other emission reductions from state, local and tribal policies and programs. Work under this BPA shall include tracking, evaluating, and developing technical and communications materials related to: emerging national, state, local, tribal and private sector clean energy and other emissions management policies and programs; electrification policies and trends in the transportation and building sectors; evolving business models in the power sector, as well as existing and new approaches to utility regulation; the science of heat islands, heat island mitigation strategies and policies and ability to quantify benefits; energy programs/policies targeted at low-income households and underserved communities; incorporating equity and resilience considerations in the development, implementation and evaluation of state and local energy policies and programs; and tribal efforts to address emerging environmental challenges, including the unique vulnerabilities and challenges of tribes and emerging tribal adaptation strategies. Support shall also include quantitative analysis and development of tools and informational resources that governments can

use to: conduct quantitative analysis of the environmental (including air, water and health impacts), energy and economic (including jobs) impacts of state and local policies and programs; develop state, local, and tribal GHG emission inventories; and assess, quantify, and communicate the health benefits of clean energy and climate change mitigation strategies, especially as related to (but not limited to) air quality impacts.

This PWS also covers technical, analytical, and modeling tools used for economic, engineering, and environmental analysis of stationary sources of domestic emissions. Sectors may include technology-defined sectors (like industrial boilers and co-generators) and product-defined sectors (like pulp and paper production). Analytical and modeling tools may be applied across sectors, to the national economy as a whole, or to other specific economic questions. These analytical and modeling tools may include, but are not limited to, conceptual, mathematical, heuristic, econometric, macro-economic, microeconomic, computable general equilibrium, partial equilibrium, unit commitment, Monte Carlo simulations, optimization, multi-objective, and other operations research techniques.

This PWS also includes services to help support program development, operation, and assessment of air pollution reduction programs. Such support may include, but is not limited to: conducting audits, tests, and inspections of equipment and practices; developing and supporting the use of electronic software, databases, datasets, technical documents, graphic images, internet sites, presentations, mobile apps, and web-based materials; performing technical and quality assurance reviews of data and documents submitted to the Agency; and researching and assessing literature; performing engineering, cost, and analytical studies; and conducting economic analyses, emissions projections, and inventories of emissions monitoring equipment, emissions controls, combustion technologies, and processes that emit pollutants.

In addition, this scope covers the safe and economical transition from ozone depleting substances (ODS) towards acceptable alternatives to protect human health and the environment, both nationally (regulatory and voluntary programs) and internationally. The Contractor may develop and analyze one or more of the following: methods of

emissions monitoring and verification; inventories and projections of ODS and alternatives; physical, biological, social, and economic causes of both anthropogenic and natural emission sources; measures (policies, programs, technologies, etc.) to reduce emissions and enhance sinks, including assessment of the economic impacts, small business impacts, social impacts, health impacts (i.e., modeling health effects of UV exposure), environmental impacts, etc. of the mitigation strategies; and the impacts of greenhouse gases and ODS emissions. In addition, the Contractor will support EPA’s evaluation of the overall risk of implementing each alternative considering the impact on ozone depletion, direct and indirect global warming, toxicity, safety, flammability, and contribution of increased air pollution by direct emission or by indirect increases in energy demand. Designated use sectors include: refrigeration and air conditioning; motor vehicle air conditioning; household appliances, supermarkets, and industrial process refrigeration; foam insulation systems; cleaning solvents; adhesives, coatings,

and inks; medical sterilization aerosols; pharmaceutical (drug delivery systems); fire and explosion protection including industry, military, government, and oil and gas; agriculture/fumigation; aviation and aerospace; ships; destruction and transformation processes; and laboratory uses. The Contractor will also provide technical and analytical support for regulatory actions being developed by EPA, including but not limited to preparing summaries of public comments, support for public hearings, and technical support documents.

Additionally, when EPA identifies special studies that require experts beyond the Contractor's immediate staff, including peer reviews, the Contractor will: (1) Draft technical specifications describing the issues and questions to be addressed by the expert panel, work group, or special study; (2) Assist EPA in identifying candidates with the requisite expertise; (3) develop for EPA review and approval estimates of cost and level of effort and delivery schedules for the activities to be performed by outside experts; (4) Convene individuals, panels, and work groups and/or perform the special study using those candidates whose qualifications meet EPA's requirements, and (5) document the information obtained from the expert, panel or work group and/or issue the special study and report how they are used. Furthermore, in conjunction with and in support of the expert capabilities described above, the Contractor will provide one or more of the following support activities: statistical analysis, regulatory program support, and guidance development.

The Contractor shall furnish the necessary personnel, material, equipment, services and facilities (except as otherwise noted) to perform the requirements of this statement of work, in accordance with the orders signed by the Contracting Officer.

1.5. Period of Performance: The period of performance for the BPA shall be for a five (5) year agreement for a total of sixty (60) months. The period of performance for orders issued under this BPA will include a base period and may include option periods up to a total of (5) five years.

1.6. General Information

1.6.1. Quality Control: Quality Control is the responsibility of the contractor. The contractor is responsible for the delivery of quality services/supplies to the Government (see FAR 52.246-4, Inspection of Services – Fixed-Price and FAR 52.246-6, Inspection-Time-and-Material and Labor-Hour).

The Contractor shall develop, implement and maintain an effective Quality Control System which includes a written Quality Control Plan (QCP). The QCP shall implement standardized procedure/methodology for monitoring and documenting BPA performance to ensure all BPA requirements are met. The Contractors' QCP must contain a systematic approach to monitor operations to ensure acceptable services/products are provided to the Government. The QCP, as a minimum, shall address continuous process improvement; procedures for scheduling, conducting and documentation of inspection; discrepancy identification and correction; corrective action procedures to include procedures for addressing Government discovered non- conformances;

procedures for root cause analysis to identify the root cause and root cause corrective action to prevent re-occurrence of discrepancies; procedures for trend analysis; procedures for collecting and addressing customer feedback/complaints. The contractor shall upon request provide to the Government their quality control documentation. The QCP shall be provided to the Contracting Officer (CO) and contract specialist via email within 10 business days of award. The Government will accept, or return the QCP for revision within 10 business days. Any change to the QCP after initial acceptance requires the review and acceptance of the CO.

1.6.2. Quality Assurance: The Government will evaluate the contractor's performance under this BPA in accordance with (IAW) the Quality Assurance Surveillance Plan. This plan is a Government only document primarily focused on what the Government must do to assure that the contractor has performed IAW the requirements of the BPA.

1.6.3. Federal Government Holidays:

New Years Day 1st day of January
Martin Luther King Jr.'s Birthday 3rd Monday of January
Presidents Day 3rd Monday of February
Memorial Day Last Monday of May
Independence Day 4th day of July
Labor Day 1st Monday of September
Columbus Day 2nd Monday of October
Veterans Day 11th day of November
Thanksgiving Day 4th Thursday of November
Christmas Day 25th day of December
Additionally, federal holidays are displayed on the Office of Personnel Management website located:
https://www.opm.gov/policy-data-oversight/pay-leave/federal-holidays/#url=2020

1.6.4. Hours of Operation: Not applicable.

1.6.5. Place of Performance: The work to be performed under this BPA will be performed at contractor facility/facilities.

1.6.6. Type of Contract: Orders under this BPA will be on a firm-fixed-price (FFP), Labor Hour (L/H), and/or on a time-and-material (T&M) type basis. A sizable portion of the orders under this BPA will be T&M type requirements.

1.6.7. Security Requirements: Contractors who will work on EPA's Drupal web server are required to undergo security/background checks. To perform privileged activities on EPA's network, a contractor will need to authenticate using a PIV card through the agency's Virtual Desktop Infrastructure (VDI) platform. Privileged access is necessary for personnel who require system access for web development or maintenance purposes. To continue performing administrative activities on EPA's network, a contractor will need:

- A PIV card, also known as an EPA Personnel Access Security System (EPASS)

badge, requires a background investigation by EPA Personnel Security

- An Active Directory account
- Access to our sponsoring organization's VDI subscription

Note: Non-EPA personnel with "non-privileged" access will not need a PIV card and should not request one; their needs will be addressed by the Limited VPN/Proxy option of EPA's Remote Access solution. To start this process, please contact your sponsor (e.g., your EPA COR). Any badge issued by the Government is Government property and is only authorized to the Contractor on an as needed basis. Badges shall be immediately returned when a contractor employee no longer has a need for the badge to access information, or areas, under this BPA or resulting order. Failure of a Regular Employee to receive a favorable suitability determination enabling the issuance of badge shall be cause for removal of the employee from the work site and from other work in connection with the Contract**.**

1.6.7.1. Physical Security: Not applicable.

1.6.7.2. Computer Access Key Card Control: The Contractor shall establish and implement methods of making sure all computer Personal Identity Verification (PIV) cards issued to the Contractor by the Government are not lost or misplaced and are not used by unauthorized persons. NOTE: All references to keys include key cards. No PIV cards issued to the Contractor by the Government shall be duplicated. The

Contractor shall develop procedures covering PIV cards control that shall be included in the Quality Control Plan. Such procedures shall include turn-in of any issued PIV cards by personnel who no longer require access to secured programs. The Contractor shall immediately report any occurrences of lost or duplicate PIV cards to the COR.

1.6.7.2.1. In the event keys are lost or duplicated, the total cost of re-issuing new PIV cards shall be deducted from the monthly payment due the Contractor.

1.6.7.2.2. The Contractor shall prohibit the use of Government issued PIV cards by any persons other than the Contractor's employees. The Contractor shall prohibit the opening of locked areas by Contractor employees to permit entrance of persons other than Contractor employees engaged in the performance of assigned work in those areas, or personnel authorized entrance by the Contracting Officer.

1.6.7.3. Lock Combinations: Not applicable.

1.6.7.4. Key-pad Access Control: Not applicable.

1.6.8. Special Qualifications: Not applicable.

1.6.9. Post Award Conference/Periodic Progress Meetings: The Contractor agrees to attend any post award conference convened by the contracting activity IAW Federal Acquisition Regulation Subpart 42.5, Post Award Orientation. The Contracting Officer,

COR, and other Government personnel, as appropriate, may meet periodically with the contractor to review the contractor's performance. At these meetings the Government will apprise the contractor of how the Government views the contractor's performance and the contractor will apprise the Government of problems, if any, being experienced. Appropriate action shall be taken to resolve outstanding issues. These meetings shall be at no additional cost to the Government.

1.6.10. Contracting Officer Representative (COR): The COR will be identified by separate letter. The COR monitors all technical aspects of the BPA and assists in administration of the BPA. The COR is authorized to perform the following functions: assure that the Contractor performs the technical requirements of the BPA; perform inspections necessary in connection with BPA performance; maintain written and oral communications with the Contractor concerning technical aspects of the contract; issue written interpretations of technical requirements, including Government drawings, designs, and specifications; monitor Contractor's performance and notify both the CO and Contractor of any deficiencies; coordinate availability of Government furnished property; and provide site entry of Contractor personnel. A letter of designation issued to the COR, a copy of which is sent to the Contractor, states the responsibilities and limitations of the COR, especially with regard to changes in cost or price, estimates or changes in delivery dates. The COR is not authorized to change any of the terms and conditions of the resulting order.

1.6.11. Key Personnel: The follow personnel are considered key personnel by the Government:

The contractor shall identify a Principal Consultant (P-level 5) to serve as U.S. EPA’s primary point-of-contact and to provide supervision and guidance for all contractor personnel assigned to the order. The Principle Consultant is ultimately responsible for the quality and efficiency of the support effort, to include providing technical, policy, and business processes support on renewable energy and green power projects. The Principle Consultant shall have knowledge in the technical areas described in the order. The Principle Consultant shall assign tasks to contractor personnel, supervise on-going technical efforts, and manage overall performance. The Principal Consultant plans, conducts and supervises projects of major significance, necessitating advanced knowledge and the ability to originate and apply new and unique methods and procedures. Schedules work to meet completion deadlines. The Principal Consultant shall have knowledge of energy efficiency, green power and emissions analysis, and experience with energy efficiency and renewable energy emissions reduction projects. The Principal Consultant shall possess demonstrated excellent written and oral communications skills.

The qualifications for the Principal Consultant are:

Minimum 10 years of experience in managing and supervising all aspects of complex development projects and the technical, customer, and personnel issues involved. Experience developing and implementing procedures, planning, and directing execution of technical, programming, scheduling, costing, and other issues. Demonstrated

excellent project management, team leadership, presentation, and communication skills. Desired specialized experience includes: planning, directing, and managing environmental programs and projects involving applied research methods, policy analysis, partnership programs, economic impacts, and applied environmental science; and ability to provide guidance and direction in multiple tasks across several functional areas including the use of different technologies.

The contractor shall provide a contract manager (P-level 4) who shall be responsible for the performance of the work. The name of this person and an alternate who shall act for the contractor when the manager is absent shall be designated in writing to the contracting officer. The contract manager or alternate shall have full authority to act for the contractor on all contract matters relating to daily operation of this contract. The contract manager or alternate shall be available between 8:00 a.m. to 4:30p.m, Monday thru Friday except Federal holidays or when the Government facility is closed for administrative reasons.

The qualifications for the contract manager are:

Minimum 7 years of experience in the environmental and/or energy consulting field. Familiar with a variety of the field's concepts, practices, and procedures. Relies on extensive experience and judgment to plan and accomplish goals. Performs a variety of tasks. May lead and direct the work of others. A wide degree of creativity and latitude is expected. Typiordery reports to top management. Applies professional knowledge of social science, economics, and/or environmental science, such as statistical analyses of the economic, social, health, and environmental impacts of policies.

(For further P-Level requirements, please see Attachment 02 Labor Category Personnel Qualifications Description)

1.6.12. Identification of Contractor Employees: Not applicable.

1.6.13. Supervision of Contractor Employees: The Government will not exercise any supervision or control over Contractor or subcontractor employees while performing work under the BPA. Such employees shall be accountable solely to the Contractor, not the Government. The Contractor, in turn, shall be accountable to the Government for Contractor or subcontractor employees.

1.6.14. Contractor Travel For time and material orders that authorize travel, the Contractor will be reimbursed for all domestic travel as described below, incurred directly and specifically in the performance of this BPA and subsequent orders, claimed by the Contractor and accepted by the Contracting Officer. All travel under the orders against this BPA will require pre-authorization from the COR before incurring travel related costs. Additional details regarding required travel may also be provided at the BPA order level.

Domestic travel expenses incurred by the Contractor in direct performance of a BPA order shall be reimbursed provided such travel is necessary for the performance of this BPA and the cost does not exceed:

1.6.14.1. The lowest customary standard, coach, or equivalent airfare offered during normal business hours for air travel except when such accommodations: 1) require circuitous routing, 2) require travel during unreasonable hours, 3) excessively prolonged travel, 4) result in increased costs that would offset transportation savings, 5) are not reasonably adequate for the physical or medical needs of the traveler, or 6) are not reasonably available to meet mission requirements. In order for costs in excess of customary standard or coach airfare to be considered allowable, the applicable exception must be documented and justified.

1.6.14.2 Costs of rail travel by most direct route, coach-class accommodations.

1.6.14.3. The prevailing mileage rate set forth in the Federal Travel Regulation (FTR) or reasonable actual expenses for travel by motor vehicle. Travel by motor vehicle, including rented automobile, shall be reimbursed on a reasonable actual expense basis, or at the Contractor's option, on a mileage basis at the prevailing FTR rate, plus any toll or ferry charges.

1.6.14.4. The prevailing rates set forth in the FTR for lodging, meals and incidental expenses.

1.6.14.5. The Contractor will be authorized travel expenses consistent with the substantive provisions of the Joint Travel Regulation (JTR)/Federal Travel Regulation (FTR)/or State Department Travel Regulation and the limitation of funds specified in this BPA and subsequent orders. All travel requires Government approval/authorization and notification to the COR, prior to making travel arrangements.

1.6.15. Order Level Materials (OLMs): Such costs are in direct support of services and are not known prior to award. This category may include travel (outlined in 1.6.14), reproduction, and shipping expenses associated with training activities and visits to contractor facilities. It may also include logistical support for meetings. Order level materials directly charged may also include shipping, graphics/reproduction, telephone, task-specific office products/equipment, designated tests, small tools, supplies, consumable items, and other task specific non-labor items. These costs must be preapproved by the Contracting Officer. Any item that falls under the category of OLMs (excluding travel) requires that contractors obtain at least three (3) quotes, OLMs may not exceed 33.33% of the total order, and is subject to the Industrial Funding Fee (IFF).

2. **DEFINITIONS AND ACRONYMS:**

2.1. DEFINITIONS:

2.1.1. CONTRACTOR. A supplier or vendor awarded a contract to provide specific supplies or services to the Government. The term used in this contract refers to the prime.

2.1.2. CONTRACTING OFFICER. A person with authority to enter into, administer, and/or terminate contracts, and make related determinations and findings on behalf of the Government. Note: The only individual who can legally bind the Government.

2.1.3. CONTRACTING OFFICER'S REPRESENTATIVE (COR). An employee of the U.S. Government appointed by the contracting officer to administer the BPA. Such appointments shall be in writing and shall state the scope of authority and limitations. This individual has authority to provide technical direction to the Contractor as long as that direction is within the scope of the BPA, does not constitute a change, and has no funding implications. This individual does NOT have authority to change the terms and conditions of the BPA.

2.1.4. DEFECTIVE SERVICE. A service output that does not meet the standard of performance associated with the PWS.

2.1.5. DELIVERABLE. Deliverables are anything that can be provided to the Government under this agreement including non-manufactured things such as meeting minutes or reports.

2.1.6. GOVERNMENT-FURNISHED PROPERTY (GFP) OR GOVERNMENT PROPERTY (GP). Property in the possession of, or directly acquired by, the Government and subsequently made available to the Contractor.

2.1.7. KEY PERSONNEL. Contractor personnel that are evaluated in a source selection process and that may be required to be used in the performance of a contract by the Key Personnel listed in the PWS.

2.1.8. PHYSICAL SECURITY. Actions that prevent the loss or damage of Government property.

2.1.9. QUALITY ASSURANCE. The Government procedures to verify that services being performed by the Contractor are acceptable IAW established standards and QASP requirements of this BPA.

2.1.10. QUALITY ASSURANCE SURVEILLANCE PLAN (QASP). An organized written document specifying the surveillance methodology to be used for surveillance of contractor performance.

2.1.11. QUALITY CONTROL. All necessary measures taken by the Contractor to assure that the quality of an end product or service shall meet the BPA requirements.

2.2. ACRONYMS:

CHP Combined Heat and Power CO Contracting Officer CPPD Climate Protection Partnership Division CFR Code of Federal Regulations CONUS Continental United States (excludes Alaska and Hawaii) COR Contracting Officer Representative eGRID Emissions & Generation Resource Integrated Database EPA Environmental Protection Agency ESIB Energy Supply and Industry Branch FAR Federal Acquisition Regulation GHG Greenhouse Gas OCI Organizational Conflict of Interest OCONUS Outside Continental United States (includes Alaska and Hawaii) PIV Personal Identity Verification POC Point of Contact PRS Performance Requirements Summary PSD Performance Start Date PWS Performance Work Statement QA Quality Assurance QAP

Quality Assurance Program QASP Quality Assurance Surveillance Plan QC Quality Control

QCP Quality Control Program SLB State and Local Branch

3. GOVERNMENT FURNISHED ITEMS AND SERVICES:

3.1. Equipment: Badges and PIV cards may be provided as needed.

3.2. Materials: Not applicable.

3.3. Utilities: Not applicable.

3.4. Equipment: Not applicable.

3.5. Materials: Not applicable.

4. CONTRACTOR FURNISHED ITEMS AND RESPONSIBILITIES:

4.1. General: The Contractor shall furnish all supplies, equipment, facilities and services required to perform work under this BPA that are not listed under Section 3 of this PWS.

4.2. Materials. See paragraph 4.1, above.

4.3. Equipment. See paragraph 4.1, above.

5. SPECIFIC TASKS:

The contractor shall provide services for the following tasks. These are examples of tasks that may be on many, but not necessarily all, of the orders issued under this BPA. Tasks will be specified on each individual order.

Task 5.1.0 Voluntary Program Related Activities

Task 5.1.1. Recruiting

Task 5.1.2. Outreach and Program Work

Task 5.1.3. Tracking

Task 5.1.4. Customer Service Task

5.1.5. Convene stakeholders

Task 5.2.0 Technical and Analytical Work

Task 5.2.1 Measurement Programs

Task 5.2.2. Technological Evaluations

Task 5.2.3. Economic and Financial Evaluations

Task 5.2.4. Market Evaluations

Task 5.2.5 Analytical Modeling Activities

Task 5.2.6 Site-Specific Feasibility and Engineering Work

Task 5.2.7 Program Evaluation

Task 5.3.0 Logistical Support for Meetings

Task 5.3.1. Pre-Meeting Tasks

Task 5.3.2. On-Site Meeting Tasks

Task 5.3.3. Post-Meeting Tasks

Task 5.3.4 Recognition Events

Task 5.3.5 Training Programs

Task 5.4.0 Communication Activities

Task 5.4.1. Preparation of Informational and Educational Materials

Task 5.4.2. Preparation of Graphics and Audio-Visuals

Task 5.4.3. Provision of Web Support

Task 5.4.4. Preparation of Web Pages, Newsletters, and Webinars

Task 5.4.5. Design and Development of Public Recognition Materials and Advertisements

Task 5.4.6. Provision of Posters and Trade-Show Booth Materials

Task 5.4.7. Partner Communications Support and Preparation of Press Releases

Task 5.5.0 Clean Energy Policy Analysis, Research, and Technical Analysis

Task 5.5.1. Policy Analysis

Task 5.5.2. Research

Task 5.5.3. Technical Analysis

Task 5.5.4. Clean Energy, emission reduction and human health guidance and tools

Task 5.6.0 GHG Accounting, Management, & Analysis

Task 5.6.1. Policy and Technical Outreach

Task 5.6.2. Resource and Tool Development

Task 5.6.3. Analysis

Task 5.1.0 Voluntary Program Related Activities: The Contractor shall help EPA perform program related activities, including recruiting, program outreach and promotional work, metrics and tracking, and customer service to ensure that existing and new programs and initiatives developed to reduce GHG emissions achieve their full potential. The Contractor shall undertake activities on the full-range of voluntary programs, by providing services such as recruiting new program participants for partnerships, as well as tracking energy savings, cost savings and GHG emission reductions and other program metrics and customer service for programs in all areas covered by the PWS. Contractor personnel, under the technical direction of EPA, may provide the following tools and services to partners:

1) Assist Branch staff to identify and solicit new partnership agreements, 2) Assist existing partners in evaluating their facilities, practices, and application of new technologies in accordance to guidelines set by EPA, 3) Provide computer software tools packages approved by EPA that enable partners to assess energy options and applications, 4) Develop and disseminate comprehensive project handbook/reference guides, and

5) Facilitate public recognition for partners by distributing EPA approved, ready-to-use promotional materials including the program logos and public-service placement of advertising in major magazines and newspaper articles.

The Contractor shall obtain approval from the EPA COR prior to placing any advertising on behalf of EPA.

Task 5.1.1. Recruiting: Recruiting is the process by which new partners are identified and brought into partnership programs. The Contractor shall assist EPA undertake recruiting tasks for partnership programs under all areas of the PWS including the Combined Heat and Power Partnership and Green Power Partnership, and any other partnership programs.

Task 5.1.2. **Outreach and Program Support:** The Contractor may need to help EPA ensure that new program participants receive government-furnished background information and support in addressing technical needs to easily complete program requirements.

Task 5.1.3. Tracking and Account Management: To ensure that EPA can track progress in recruiting and enacting programs, achieving program goals and objectives, and effectively organize its contacts with prospective and current program participants, the Contractor shall help EPA maintain an up-to-date tracking system for program areas under the PWS that allows the sharing of information between programs. The Contractor shall enhance tracking system efficiency by creating linkages between CPPD programs with similar programmatic goals and objectives.

Task 5.1.4. Customer Service: The Contractor shall help EPA provide prompt and accurate customer service for voluntary program partners and the public. Contractor personnel are required to identify themselves as an EPA Contractor when dealing with the public and other government agencies and officials. The Contractor shall provide a range of customer services to facilitate the prompt and effective dissemination of information via program websites, electronic mail, social media, and hotlines.

In all cases, the Contractor shall provide professional, courteous, timely, cost-effective, and customer-oriented services. All actions taken to provide customer service will be entered into an appropriate tracking system.

Task 5.1.5. Convening Stakeholders: The Contractor will assist EPA staff in convening stakeholders to advance objectives in accelerating clean energy demand and help organizations reduce GHG emissions where specific barriers are not addressed within ESIB voluntary programs. The Contractor shall follow the EPAs conference policies and

procedures.

Task 5.2.0 Technical and Analytical Work: To identify new program areas and ensure that current programs are technically sound and reflect the best and most recent technical information, the Contractor shall help EPA undertake technical and analytical activities for programs and activities in all areas under the PWS. Technical and economic evaluations must take into consideration all legal and regulatory issues including general business regulations, environmental laws and regulations, safety standards and specifications, financial laws, or other technical rules, regulations, or laws which may have an impact on project feasibility.

Task 5.2.1 Measurement Programs: The Contractor shall help EPA undertake measurement programs of various energy uses and emission sources to establish overall levels of energy use and emissions, to assess the effectiveness of various efficiency and emission mitigation options, and to address areas of scientific uncertainty related to cost, fuel and emission factors and other key variables which affect key energy use and emission metrics. The Contractor shall assist in developing and updating approaches to program and corporate data analysis and management.

Task 5.2.2. Technological Evaluations: The Contractor shall assist EPA evaluate the technical feasibility of emissions measurement or energy use and emission reduction options to be implemented by program participants, prospects, or relevant sectors on a general or site-specific basis. The Contractor shall evaluate the impact of technical issues related to project implementation, such as cost, sustainability, timing, risk and other relevant issues related to a project's feasibility. These evaluations may be conducted on a global, national, regional, local, or entity basis as specified by EPA. The Contractor shall support EPA in assessing and leveraging enabling technologies that indirectly contribute to the development of technologies, projects or markets.

Task 5.2.3. Economic and Financial Evaluations: The Contractor shall help EPA develop economic and financial feasibility evaluations for emissions measurement and energy use and emission reduction options to be implemented by program participants, prospects or sectors on a general or site-specific basis. The Contractor shall evaluate project economics and financial requirements. The Contractor shall evaluate the impact of such factors as potential trends in energy prices, access to investment capital, trends in interest rates, tax rates, and economic/financial risks on a project's feasibility. These evaluations may be conducted on a global, national, programmatic, regional, local, or entity basis.

Task 5.2.4. Market Evaluations: The Contractor shall help EPA evaluate market standards and conditions for clean energy technologies and techniques that can mitigate or reduce emissions. The Contractor shall evaluate potential markets for clean energy technologies and/or other mitigation technologies and update EPA staff on trends, technologies, regulations, or financing tools that may impact the market for clean energy.

Task 5.2.5 Analytical Modeling Activities: The Contractor shall help EPA develop and

provide analytical modeling for a variety of purposes, including assessment of energy

use, emissions measurement and mitigation methods (in terms of technical, economic or financial impacts) on a global, national, programmatic, regional, local, or site-specific basis. The Contractor shall develop and conduct analytical modeling of potential penetration of clean energy technologies in the U.S. economy and their usefulness as an emission reduction tool. The Contractor shall develop, refine and use a range of analytical modeling tools related to all program and activity areas under the PWS. The Contractor shall perform modeling efforts such as the following: input-output models, simulation models, discounted cash-flow models, electricity dispatch and/or planning models, or other common model types. The Contractor shall compile and manage databases on climate change and related multimedia environmental issues. The Contractor shall run mathematical models that can be used to assess options for GHG mitigation and track progress of actions taken to mitigate or adapt to climate change. In addition, the Contractor shall review models developed by others and analyze results in terms of accuracy of assumptions and quality of analysis.

Task 5.2.6 Site-Specific Feasibility and Engineering Work: The Contractor shall help EPA provide site-specific feasibility and engineering work on GHG measurement and reduction opportunities for programs under the PWS. The Contractor shall assess the applicability of available or emerging clean energy technologies to measure or reduce GHG emissions under site-specific conditions in the United States or abroad. The Contractor shall cover the following topics: technical feasibility; engineering requirements; costs and revenues; project implementation issues (such as permitting, legal or regulatory issues); and financing issues.

The Contractor shall evaluate site-specific conditions related to various emission reductions and identify sites with strong potential to reduce these emissions cost-effectively. The Contractor shall evaluate the applicability of common technologies and techniques under different conditions. The Contractor shall analyze the potential to adapt existing technologies at specific sites and shall assess the applicability of available technologies and techniques for maximizing emission reductions. The Contractor shall evaluate issues involving the application of available and emerging technologies under the technical and institutional conditions of the site or sites being investigated.

Task 5.2.7 Program Evaluation: The Contractor shall help EPA evaluate its program results, including managing emissions, increasing renewable energy use, saving energy etc. The Contractor shall evaluate opportunities for potential new markets for clean energy technologies and evaluate regulatory, policy, economic and market conditions that have had an impact on EPA programs.

Task 5.3.0 Collaborative Sessions: The Contractor shall provide environmental support services to include, but not limited to, training programs, webinars, seminars, and other educational support services. These services will be conducted at contractor provided site locations and Government provided site locations.

The Contractor shall identify and retain, as needed, appropriate meeting facilitators, administrative support, expert speakers, and logistical assistants and support specialists, facilitate internet-based conferencing, including supporting audiovisual equipment, and produce agendas, records, and proceedings at Government and contractor provided site locations. The Contractor shall develop event agendas according to guidelines set by EPA and with EPA's approval. Subject to EPA review and approval, the Contractor shall prepare the necessary mailing lists, announcements, and draft press releases to notify potential attendees of scheduled collaborative sessions.

The Contractor shall provide support for the following:

Task 5.3.1. Pre-Meeting Tasks

Task 5.3.2. On-Site Meeting Tasks

Task 5.3.3. Post-Meeting Tasks

Task 5.3.4 Recognition Events: EPA annually hosts events to celebrate the achievements of partners of these partnership programs. These events honor organizations or individuals, both public and private for achieving milestones and meritorious accomplishments under the programs covered in the PWS.

Task 5.3.5 Training Programs: Training participants in specific aspects of EPA programs covered in the PWS, as well as in the assessment of program applicability, including assessments of emission levels and cost-benefit and other analyses of program effectiveness.

Task 5.4.0 Communication Activities: The Contractor shall assist EPA undertake outreach activities including the development of outreach materials, program summaries and fact sheets, public education and recognition materials, and technical outreach materials targeted at various industry, business, government, non-profit, research institutions and universities, and other key stakeholder groups. All outreach materials must be critically reviewed and approved by an EPA COR prior to dissemination by the Contractor. The Contractor may be required to calculate quantitative content for outreach materials, present that content in figures, or proof and edit quantitative content. The Contractor shall use a variety of media in disseminating outreach materials, communication content, and presentations, including: brochures, pamphlets, and printed reports; electronic list serves, emails, social media, on-line training programs, and bulletin boards; home pages and other Internet websites, CDs, podcasts, videos, public service advertisements, posters, and trade-show displays. Examples of specific types of outreach activities may include:

Task 5.4.1. Preparation of Informational and Educational Materials: The Contractor shall help EPA develop informational brochures and other materials for dissemination to the public or other stakeholders in the U.S. and elsewhere. The Contractor may be required to translate the material to and from foreign languages. The Contractor shall develop brochures; posters; program documents; program logos; folders; labels; postcards; slides; photographs; newsletters; articles; awards and certificates; annual

reports on programs; outreach presentations; banners; displays, booths and kiosks; maps; billboards; bus/train placards; briefings; and charts. This work may involve creating a “look and feel” for a specific program or effort, required proofing and editing, for a variety of program materials, including such deliverables as fact sheets, white papers, presentations, and reports.

Task 5.4.2. Preparation of Graphics and Audio-Visuals: The Contractor shall develop graphics and audio-visual materials for briefings, meetings, workshops, and public presentations, or for general information dissemination. The Contractor shall draft figures; compose and produce PowerPoint slides, posters, charts, or computer briefing programs with animation; and provide translation. The Contractor shall be required to provide quick response (i.e., 24-hour) for multiple revisions.

Task 5.4.3. Provision of Web Support: The Contractor shall provide overall web support covering all aspects of web design, maintenance, edits, enhancements and technical issues relating to the development of web-based tools, applications, database design and maintenance, as well as usability, analytics and statistics reports for EPA web sites. The Contractor shall work with the EPA COR on all web-related issues and assist the Representative in all aspects of web site management. The Contractor shall provide development and management support for existing web sites as well as the development of new web pages, web sites, databases and tools. The Contractor shall provide assistance in following all EPA and federal web guidelines. The Contractor shall also assist in complying with all EPA-wide web changes and formatting requirements and will provide copy editing as needed.

The Contractor shall provide data quality control measures to insure a high level of data quality. The Contractor, under the direction of the EPA COR, shall provide development and maintenance support for all web tools and applications including the development of new content, weekly website updates to include events, links checks, new content, etc., bi-weekly budget updates, to include: dollar/hours spent and remaining by project or program web site, percent budget spent, figures on website updates, monthly web site usability, analytics, and statistics reports, and support for integration between the Division’s various program databases. The Contractor shall also provide development and maintenance support for all web tools and applications in support of EPA’s Power Profiler, and the Clean Energy Website to Energy and the Environment website with new eGRID data. Under this task, the contractor shall ensure that all 508 compliance requirements are met.

Task 5.4.4. Preparation of Web Pages, Newsletters, and Webinars: The Contractor shall help EPA develop web pages, newsletters, and webinars for general information

dissemination via the internet. The Contractor shall provide graphic design, formatting, and programming services; provide frequent updates to keep material current; and assess and implement innovative approaches to using the Internet and/or similar systems as a program outreach tool. Under this task, the contractor shall ensure that all 508 compliance requirements are met.

Task 5.4.5. Design and Development of Public Recognition Materials and Advertisements: The Contractor shall help EPA develop high-quality public recognition materials and public service advertisements suitable for placement in EPA documents, conference proceedings, trade journals, magazines, or other similar publications. The Contractor shall create, design, layout, and produce all materials in close coordination with the EPA COR. The Contractor shall coordinate the placement of non-paid advertisements.

Task 5.4.6. Provision of Posters and Trade-Show Booth Materials: The Contractor shall provide posters, computer demonstrations, or other materials for display in booths or on tables at trade shows for the program areas covered in the Statement of Work. The Contractor shall develop concepts; design booth or table layout; develop professional posters and computer demonstrations, automatic slideshows or other materials as part of the booth or table; and prepare booths or tables suitable for installation in exhibition areas at conferences or other public gatherings.

Task 5.4.7. Partner Communications Support and Preparation of Press Releases: The Contractor shall help EPA develop customized and generic partner press release templates and EPA Headquarters press releases. The Contractor shall manage news clips searches and PR reports that detail and measure the effectiveness of event or press release/media campaigns. The Contractor shall also develop artwork for banners; partner snapshots; provide updated plaques and support other partner communications support requests. The Contractor shall execute necessary partner data entry and maintenance tasks.

Task 5.5.0 Clean Energy Policy Analysis, Research, and Technical Analysis

The Contractor shall help EPA conduct policy research and analysis on a quick-turn around and longer-lead basis per technical direction from the EPA COR. The product of these requests will be used to support policies that remove barriers to clean energy (including CHP and energy efficiency technologies) and help create a business case for increased clean energy investment.

Task 5.5.1. Policy Analysis: The Contractor shall help EPA conduct research and analyses of key local, state and federal electric and gas industry policy issues related to clean energy investment, including but not limited to utility ratemaking and revenue requirements, rate design, interconnection rules, integrated resource planning, energy portfolio standards (including clean generation and/or energy efficiency), shareholder incentives, model program development, and standard methods for program evaluation, measurement, monitoring and verification per technical direction. Since much research

and analysis in these areas already exists, the Contractor shall summarize existing approaches before undertaking specific analysis to avoid duplication. Policy analysis is inclusive of, but not limited to, case studies, quantitative analysis, and broader policy analysis.

Task 5.5.2. Research: The Contractor shall fill research requests on clean energy best

practices and review or prepare text for scoping papers per technical direction. The Contractor shall provide a summary of all research and literature review, as appropriate, in a specific format per technical direction.

Task 5.5.3. Technical Analysis: The Contractor shall help EPA perform technical analyses of the actual or potential impacts of proposed policies, standards, or programs that have been proposed or are already being implemented per technical direction. These may include, but are not limited to, studying electricity grid effects, including reduction in energy and/or peak demand, demand response measures, reduction in grid congestion, electrification, displaced emissions, effects on grid reliability, block chain technologies and applications, market impacts, project economics, and/or effects on overall electricity cost to consumers. The audience for this analysis is mainly state policy makers and regulators but may include other stakeholders as well, such as corporations and non-governmental organizations that engage the private sector on clean energy programs. These analyses may involve independently collecting data, and may also involve working with state and regional stakeholders to analyze existing data and survey existing programs.

Task 5.5.4 Clean energy, emission reduction, and human health guidance and tools: The Contractor shall assist EPA with developing guidance and tools that advance integrated approaches to energy, economics, emission reduction, heat islands and human health policy-making. This work will include developing fact sheets, case studies, and larger guidance documents as well as web-based and software tools that estimate the impacts of clean energy and other emission reduction strategies on the economy, and human health. Further, the Contractor will assist with developing and improving guidance and tools that aim to incorporate clean energy into air quality and public health programs.

Task 5.6.0 Emission Accounting, Management, and Analysis

Task 5.6.1. Policy and Technical Outreach: The Contractor shall help EPA catalyze for corporate GHG management resilience and adaptation, standards, guidance, best practices, and program development by working with local, state and federal policymakers as well as non-governmental bodies to help them understand and engage in the various accounting standards, guidance, policies and programs, as well as best practices that can be gleaned from existing efforts to promote GHG management.

Task 5.6.2. Resource and Tool Development: The Contractor shall help EPA develop and update tools and materials to facilitate cost-effective corporate GHG inventory and reporting, benchmark industry progress in measuring and reducing emissions, and help

organizations implement GHG emissions reduction initiatives. The Contractor will also provide technical support for the enhancement of existing corporate and federal GHG inventory and reporting guidelines and protocols, including Scope 3/supply chain accounting and accounting for renewable energy purchases and usage in Scope 2 and reporting GHG emissions to financial investors.

Task 5.6.3. Analysis: The Contractor shall help EPA conduct research and analyses of GHG management policies, standards, guidance, and practices, including but not limited to accounting practices, federal guidance, sector-specific emissions trends, data collection and quality management, and reduction opportunities, as well as review existing and proposed GHG policies and assess the impact of these programs. Policy analysis is inclusive of, but not limited to, case studies, quantitative analysis, and broader policy analysis.

> **Task 5.6.3.1 Scope 3/Supply Chain/Product Lifecycle Accounting Tools and Resources:** The Contractor shall develop tools, resources, and/or guidance for organizations to measure and evaluate the GHG emissions of their upstream and downstream supply chains (value chains) and the goods and services they create for end customers. The Contractor will bring technical expertise in life cycle accounting (LCA) and familiarity with the Environmentally Extended Input-Output Model (USEEIO) for the Open LCA model that EPA's Office of Research and Development helped create.
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> **Task 5.6.3.2 Fluorinated Greenhouse Gas (F-GHG) Emissions Measurement and Reductions in Electronics Manufacturing:** The Contractor shall develop tools, guidance, or other resources as needed to help electronics manufacturers and suppliers (namely in flat panel display manufacturing) measure and reduce F-GHGs. The Contractor shall also update on an annual basis the F-GHG emissions public profiles for flat panel display suppliers, which are hosted on the Center's webpage. The Contractor shall purchase data, as needed, to update the profiles.

Task 5.6.3.3 Clean Energy Analysis for State and Local Governments: The Contractor shall provide analytical support to help EPA advance integrated approaches to energy, emission reduction, human health, and economic policy-making. This work will include developing methods to estimate the impacts of energy and other emission reduction strategies on the economy, the energy system, the environment (especially air quality), and human health. Support will also include developing and improving methods for incorporating clean energy into emission reduction programs.

Invoices and Progress Reports: For each task, the contractor shall submit a monthly invoice and monthly progress report to the COR, which includes:

- BPA Number and BPA Order Number and Title
- Period covered by the report
- Date and Name of preparer
- Milestones/Date Due/Government Due/Comments
- Task Title(s) and Number(s)
- Status of deliverables
- Highlight any Deviation from the PWS

- Efforts this Reporting Period
- Efforts Projected for Next Reporting Period
- Problem Areas
- Travel completed this reporting period
- Travel projected next reporting period
- General Comments

Deliverable: Monthly Status Report completed by the 5th working day of the following month. This report shall be submitted electronically to the COR, in an MS Office format.

EPA expects 100% accuracy of the content presented. Minor clerical mistakes that are merely a matter of form and not of substance will be noted for correction.