



USAID
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USAID Southeast Asia's Smart Power Program (SPP)

Year 1 Annual Work Plan

December 10, 2021 – September 30, 2022

March 31, 2022

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USAID SOUTHEAST ASIA'S SMART POWER PROGRAM (SPP)

Year 1 Annual Work Plan

December 10, 2021 – September 30, 2022

Prepared for:

USAID Regional Development Mission for Asia (RDMA)

Prepared by:

Deloitte.

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March 31, 2022

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ACRONYMS AND ABBREVIATIONS

ACE	ASEAN Centre for Energy
ADB	Asian Development Bank
ADPC	Asian Disaster Preparedness Center
AES	Advanced Energy System
AGP	Asia Gs Partnership
AERN	ASEAN Energy Regulators' Network
AIMS	ASEAN Interconnection Master Plan Study
APEIA	Asia-Pacific ESCO Industry Alliance
APG	ASEAN Power Grid
ASEAN	Association of Southeast Asian Nations
ATC	Available Transfer Capacity
CCAC	Climate and Clean Air Coalition
CCEA	Corporate Clean Energy Alliance
CCP	Center for Competitive Procurement
CEP	Competitive Energy Procurement
COP	Chief of Party
COP-27	Conference of Parties-27
DCOP	Deputy Chief of Party
DER	Distributed Energy Resources
DFC	Development Finance Corporation
DFI	Development Finance Institution
DPPA	Direct Power Purchase Agreement
DoS	Department of State
DSM	Demand-Side Management
E4SEA	Enhancing Equality in Energy for Southeast Asia
EE	Energy Efficiency
EEE	Enhancing Equality in Energy
EGAT	Electricity Generating Authority of Thailand
EMMP	Environmental Mitigation and Monitoring Plan
EPRI	Electric Power Research Institute
ESCO	Energy Service Companies
ESG	Environmental, Social, Governance
EUPP	Energy Utility Partnership Program
EV	Electric Vehicle
EVN	Vietnam Electricity
EXIM	Export-Import Bank of the United States
GAA	General and Administrative
GANTT	Generalized Activity Normalization Timetable
GBV	Gender Based Violence
G-PST	Global Power Sector Transformation
GESI	Gender Equality and Social Inclusion
GGFR	Global Gas Flaring Partnership
GIDAP	Gender and Inclusive Development Action Plan
GMI	Global Methane Initiative
GMS	Greater Mekong Subregion
GUC	Grants Under Contract
HAPUA	Heads of ASEAN Power Utilities/Authorities
IEA	International Energy Agency
IT	Interconnection Task Force
JUMPP	Japan-U.S. Mekong Power Partnership
LBNL	Lawrence Berkeley National Laboratory
LOC	Letter of Commitment
LTMS-PIP	Laos-Thailand-Malaysia-Singapore Power Integration Project
LTTA	Long-Term Technical Assistance

MAQE	Mekong Air Quality Explorer
ME&L	Monitoring, Evaluation, and Learning
MEPS	Minimum Energy Performance Standards
MOU	Memorandum of Understanding
NARUC	National Association of Regulatory Utility Commissioners
NGO	Non-governmental Organization
NREL	National Renewable Energy Laboratory
O&G	Oil and Gas
OASIS	Open Access Same-Time Information System
ODC	Other Direct Cost
P4I	Partnership for Infrastructure
PDR	People's Democratic Republic
PPA	Power Purchase Agreement
QRM	Quality and Risk Management
RDMA	Regional Development Mission for Asia
RE	Renewable Energy
REEEAC	Renewable Energy and Energy Efficiency Advisory Committee
RPTCC	Regional Power Trade Coordination Committee
S&L	Standards and Labeling
SE4ALL	Sustainable Energy for All
SEA	Southeast Asia
SPP	Smart Power Program
STTA	Short-Term Technical Assistance
TA	Technical Assistance
TICA	Thailand International Cooperation Agency
TOCOR	Task Order Contracting Officer's Representative
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
USG	United States Government
USP	Utility Strengthening Plans
USTDA	United States Trade and Development Agency
VRE	Variable Renewable Energy
WG	Working Group

Executive Summary

Launched in mid-December 2021, the five-year ██████████ Southeast Asia's Smart Power Program (SPP) is the flagship clean energy and climate mitigation activity of the United States Agency for International Development (USAID) Regional Development Mission for Asia (RDMA). SPP aims to enhance and accelerate an ongoing transition to a vibrant power and energy sector that increases electricity availability, access, and reliability throughout Southeast Asia.

SPP will concurrently work to help regional power utilities enhance their operations – with a specific aim of enhancing their ability to manage intermittent flows of variable renewable energy such as solar power and wind power; to catalyze the adoption of advanced energy systems such as electric vehicles, battery energy storage systems, and advanced load control technologies; and to help the region tie together its power markets and ensure that efforts to use more natural gas are accompanied by effective measures to reduce harmful emissions of greenhouse gasses such as methane.

In its first – and partial – program year (through September 30, 2022) the SPP team will lay a foundation for future success, building its:

- Team and Presence
- Partnerships and Delivery Channels
- Reputation and Ensuing Support

Even as it lays a foundation, SPP aspires to secure rapid high-impact results for USAID within this first year of operation. SPP's immediate ambitions include:

- Catalyze formation of a regional industry-led coalition that commits to accelerating actions to reduce emissions of methane from oil and gas operations in Southeast Asia – targeting an announcement to precede the 27th Conference of Parties (COP-27) of the United Nations Framework Convention on Climate Change (November 7-18, 2022 in Egypt).
- Mobilize significant financial resources for at least one high-profile clean energy project in Southeast Asia; likely by employing SPP's hallmark approach of leveraging the power of a whole-of-government initiative.
- Help at least one company solidify its commitment to the Southeast Asian clean energy market with confidence that its market entry strategy will succeed.
- As detailed in its accompanying Outreach and Communications Plan, launch an aggressive social media campaign targeting the digitally-inclined and climate-conscious youth of Southeast Asia – reinforcing USAID's position as the region's innovative thought leader and building widespread support for an ongoing transformation to a clean energy future.

This Year One Work Plan details how the SPP team will organize the year's activities, including setting project priorities and organizing responsibilities among the team members to ensure the successful implementation of the tasks. The Work Plan also includes a schedule, budget, and budget narrative.

Introduction to SPP

SPP is USAID's flagship regional power program in Southeast Asia. SPP is a cornerstone of the broader USG Clean Enhancing Development and Growth through Energy (EDGE) Asia initiative, which aims to support and accelerate Asia's clean energy transition through a robust approach that taps the joint resources, expertise, and technology of the United States government and the private sector. Addressing the concurrent challenges of rapidly growing energy demand, reliance on unsustainable fossil fuels, aging infrastructure, outdated market mechanisms to meet requirements for power, transportation, and buildings, this innovative U.S. engagement will also reduce greenhouse gas emissions, foster energy security, support sustainable development, and help formulate and implement decarbonization strategies.

SPP addresses infrastructural and economic issues by creating open and transparent energy markets, promoting energy trade, and transforming the energy sector to improve access to clean, reliable, affordable energy. The program will take a 'whole-of-government' approach, working across sector boundaries to build the resilience of a regionally interconnected, diverse energy portfolio with major private sector investment. The Program will support U.S. climate priorities to enhance global action for near-term reductions in greenhouse gas emissions and net-zero global emissions by 2050. Driving factors for this in Southeast Asia include declining air quality, contributing to 2.4 million deaths per year in the region, climate change vulnerability, and steady regional economic growth necessitating increased energy access to be sustained. The region boasted GDP growth of 4.5% in 2019, progress that can only be sustained with increased domestic energy security. The program supports the USAID Indo-Pacific Vision in addressing economic and infrastructural bottlenecks through innovative, environmentally friendly, and private sector led solutions.

Through close collaboration with U.S. government partners including the U.S. International Development Finance Corporation (DFC), Department of State, Foreign Commercial Service (FCS) and U.S. Trade and Development Agency (USTDA), SPP will catalyze clean energy innovations and facilitate private sector investment in the region. These contributions will advance the Administration's climate and clean energy priorities to meet 2050 net-zero emissions commitments and will contribute directly to helping our country partners meet and extend their Paris Agreement commitments to reduce greenhouse gas emissions.

SPP will be a five-year regional program with seven focus countries – Burma, Cambodia, Indonesia, Laos, Philippines, Thailand, and Vietnam and the potential to work across the Pacific Islands region. The program will focus on achieving the following key objectives:

- **Advancing Economic Growth and Development**

The program will increase investment in the region's energy sector, improving energy accessibility, sustainability, and affordability. This will contribute to sustaining and furthering the region's economic growth trends and ensure security for market-driven energy sectors.

- **Improve Performance of Energy Utilities**

The program will strengthen the capacity of Southeast Asian power utility management and staff to improve financial viability, enhance operational efficiency, strengthen corporate governance, and adopt international leading management practices, with a particular focus

on enhancing their ability to manage intermittent flows of variable renewable energy sources.

- **Increase Deployment of Advanced Energy Systems**

Managing electric power demands and deploying high efficiency, smart technologies in the building, industrial, and transportation sectors will be critical to strengthening energy security and self-reliance. The program will support the development and deployment of innovative solutions and approaches aimed at transforming the energy sector and will significantly increase the market penetration of today's smart and cost-effective renewable energy sources and energy efficient technologies such as super-efficient air conditioners, lighting, controls, and industrial equipment.

- **Enhance Trade and Integration**

More interconnected grids and enhanced power trade across borders will help increase grid flexibility and support ASEAN's goal of increasing the supply of non-hydro renewable energy (RE) to meet 23% of the region's primary energy demand by 2025. The program will improve energy security, reliability, and project economics by supporting local counterparts to strengthen institutions and infrastructure toward increasing regional power trade in Southeast Asia.

- **USTDA Transaction Advisory Service Option**

USAID is working in partnership with USTDA to support USTDA's project origination, decision-making and program implementation for energy projects and increase coordination between USTDA and USAID in Southeast Asia and the Pacific Islands. It is envisioned that SPP may incorporate or embed USTDA Advisors focused on more seamlessly connecting USAID's efforts to USTDA's resources and support (e.g., project feasibility studies). If supported by USTDA, this collaboration would likely include a Southeast Asia regional advisor and advisors based in and co-located with SPP representatives in Indonesia, Philippines, and Vietnam.

SECTION 1: PROGRAM APPROACH

This first annual Work Plan for USAID Southeast Asia's Smart Power Program (SPP) describes the logical sequence of activities that the SPP team will undertake to advance USAID's broad determination to enhance energy security in Southeast Asia by creating open and transparent energy markets, promoting energy trade, and transforming the energy sector to improve access to clean, reliable, affordable energy.

This Work Plan describes how the SPP team will organize the year's activities, including setting project priorities and the organization of responsibilities among the team members to ensure the successful implementation of defined tasks. The Work Plan also includes a schedule, budget, and budget narrative. As specified in the Task Order, the following section will detail the:

- Proposed interventions, accomplishments, and progress towards achieving results for the given year.
- Corresponding schedule depicted on a GANTT chart and level of effort required to complete the interventions.
- Detailed budget and narrative for implementation including a breakdown per proposed intervention, inclusive of cost of short-term technical assistance, training, and other resources.
- The anticipated outputs and outcomes from each intervention conducted.
- Description of assumptions as well as the proposed approach to assess whether the assumptions hold true.
- The anticipated risks with regard to achieving the anticipated objectives of the contract and how they will be mitigated.
- The strategies and approaches the program will adopt in coordinating and collaborating with other USAID activities/projects, relevant host country governments and other line agencies, local governments and other relevant stakeholders implementing projects in the same geographic locations.

CORE PRINCIPLES AND APPROACH

This Work Plan encompasses a limited period of approximately seven months: from its date of approval (anticipated in March 2022) through the end of the USG fiscal year on September 30, 2022. Respecting this short duration, SPP will consider its first year as a **foundational period**, building its:

- Team and Presence
- Partnerships and Delivery Channels
- Reputation and Ensuing Support

Building its Team and Presence. As captured in its approved Rapid Mobilization Plan, SPP will engage a team of U.S. and regional long-term and short-term professionals and establish a project office in Bangkok, Thailand. Consistent with this decade's unusual circumstances of a

COVID pandemic, SPP will also implement a strong set of systems that support virtual and hybrid engagement. Following the guidance and established procedures of USAID RDMA, SPP will identify a Thai government counterpart organization to sponsor the program's approval as official development assistance by the Thailand International Cooperation Agency (TICA), which will enable the program and its advisors to have the appropriate operating status in Thailand.

Building its Partnerships and Delivery Channels. Southeast Asian power sectors benefit from a plethora of well-established regional institutions that represent governments, regulatory bodies, businesses, and civil society. In addition, multiple partnerships and programs already serve as delivery channels to support their transition to a clean energy future. A core operating principle of SPP will be to engage counterparts and beneficiaries through existing regional institutions and partnerships, and to reach them primarily through existing delivery channels. This principle will maximize USAID's leverage; harness the wide-ranging and deep power of a whole-of-government and coordinated multi-donor approach; and increase the likelihood that the counterparts and beneficiaries continue to benefit from support after the duration of the SPP program. In addition, as it completes its initial assessments in Year One, SPP will build on the existing work and analyses that these and other partners have already completed – drawing on the vast knowledge base that is already in place to maximize the program's speed and efficiency.

The key regional institutions, partnerships, and delivery channels that SPP will engage across its program are:

- ***Association of Southeast Asian Nations (ASEAN)*** – a political and economic union of ten member states (all SPP's seven designated countries plus Brunei, Malaysia, and Singapore) that drives development and harmonization throughout the region. In close coordination with USAID, SPP will engage both with the senior leadership of ASEAN in its Secretariat, and with several of its constituent elements, including but not exclusive to:
 - ***Heads of ASEAN Power Utilities/Authorities (HAPUA)*** which aims to strengthen regional energy security through joint efforts that promote standardization, harmonization and modernization of power generation and transmission systems, power markets, and leading practices for utility operations and oversight.
 - ***ASEAN Centre for Energy (ACE)*** which holds the broad remit to enhance energy connectivity and integration in Southeast Asia.
 - ***ASEAN Power Grid (APG) Consultative Committee*** which provides technical oversight and advice on development and operation of cross-border power trading systems and infrastructure.
 - ***ASEAN Energy Regulators' Network (AERN)*** which convenes energy and power market regulators to share experiences, helping to enhance and harmonize the enabling environment for the energy sector.
- ***Japan – U.S. Mekong Power Partnership (JUMPP)***, a recently-launched joint donor-funded initiative of the U.S. and Japan that “supports the Mekong region's pursuit of

energy security while encouraging greater regional power trade, clean energy integration, decarbonization and resilience”.

- **Regional initiatives of the Australian government** such as the Partnership for Infrastructure (P4I) in Southeast Asia that is implemented by EY, Adam Smith International, The Asia Foundation and Ninti One.
- **Regional Power Trade Coordination Committee (RPTCC)** which manages power trading within the Greater Mekong Subregion (GMS), under the auspices of the Asian Development Bank (ADB).
- **Asia EDGE Power Sector Learning Series** that RDMA's Hub hosts monthly to share tools, approaches, and methods with power utilities in Southeast Asia.
- **Global Power Sector Transformation (G-PST)** consortium that has convened power system operators for targeted and detailed training, peer learning, and technical assistance programs.
- **Corporate Clean Energy Alliance (CCEA)**, an RDMA-supported coalition of business leaders and associations that harnesses the influential voice of foreign and regional direct investment to press for energy sector reforms that advance sustainability.
- **Asia EDGE DEAL (FLOW) / SCOUT**. The U.S. Department of Interior and U.S. Department of State have launched the SCOUT South Asia Energy Market Research Project and the parallel Asia EDGE Deal Flow Program to identify, track, assess, disseminate, and advance viable energy investment opportunities in South Asia and the Indo-Pacific to support countries in meeting their domestic energy security, diversification, access, and development goals. As these programs reach their culmination, SPP will seek to step in as the natural partner to help drive priority projects in Southeast Asia to financial close and implementation.
- **Southeast Asia Center for Competitive Energy Procurement (SEA-CEP)**, a new regionally based institution that SPP will design, launch, and operate as a central clearinghouse of leading practices and technical assistance on transparent, competitive procurement processes. SEA-CEP will be a key channel through which SPP meets USAID's key objectives to mobilize \$2 billion in finance for 2,000 MW of advanced energy systems. SEA-CEP will address weaknesses in public procurement, strengthen the region's ability to attract financing, and support regional trade.

As its general approach to form these foundational partnerships, SPP will:

- **Engage at a high-level**, respecting protocol and building upon existing formal and informal relationships. For example, to engage with ASEAN, SPP will consult through its TOCOR with the RDMA office that is charged with overseeing the USAID-ASEAN partnership. SPP will follow their advice (which might include, for example, a need to further coordinate with State Department offices) to reach senior leadership within the ASEAN Secretariat.
- **Employ an in-person approach**. In forming a working partnership with ASEAN, for example, SPP would seek to conduct a series of in-person meetings with the Secretariat

and then its constituent bodies (e.g., HAPUA and ACE) in Jakarta, accompanied by its TOCOR. If necessitated by COVID-related travel restrictions, SPP will employ a hybrid approach of engaging through virtual channels and deploying its senior-level Indonesia Country Coordinator, whom it anticipates will have existing high-level relationships throughout the ASEAN system. SPP will also consider placing staff on-site or nearby the ASEAN offices in Jakarta.

- **Identify specific areas of partnership and secure detailed Letters of Collaboration.** SPP will aim to finalize its discussions with the key partners listed above and formalize the working relationships in Letters of Collaboration that outline the agreed areas and types of support and the roles and responsibilities of all parties.

Building its Reputation and Securing Support. In parallel with measured action that builds a solid foundation for the program's long-term success, SPP will also pursue rapid, high-impact results that can solidify its reputation within the USG and build trust in its ability to serve as the USG's cornerstone program that advances Southeast Asia's clean energy future. As elaborated in this initial Work Plan, SPP anticipates to:

- Catalyze formation of a regional industry-led coalition that commits to accelerating actions to reduce emissions of methane from oil and gas operations in Southeast Asia – targeting an announcement to precede the 27th Conference of Parties (COP-27) of the United Nations Framework Convention on Climate Change (November 7-18, 2022 in Egypt).
- Mobilize significant financial resources for at least one high-profile clean energy project in Southeast Asia; likely by employing SPP's hallmark approach of leveraging the power of a whole-of-government initiative.
- Help at least one company solidify its commitment to the Southeast Asian clean energy market with confidence that its market entry strategy will succeed.
- As detailed in its accompanying Outreach and Communications Plan, launch an aggressive social media campaign targeting the digitally-inclined youth of Southeast Asia – reinforcing USAID's position as the region's innovative thought leader and building widespread support for an ongoing transformation to a clean energy future.

The following narratives present SPP's approach for implementing its Tasks and Sub-Tasks in Year One.

TASK 1: SOUTHEAST ASIA POWER UTILITY MODERNIZATION

Task 1 is designed to strengthen SEA utilities by helping them to improve their operational performance and financial viability; and by helping them to adopt leading practices and technology.

Consistent with its broad operating principles, SPP designed its approach for Task 1 based on tapping existing regional institutions and delivery channels. The program will primarily work through HAPUA and ACE Working Groups (WGs) to reach regional utilities, regulators, and power market operators.

SPP will primarily deliver its assistance through established channels, supplementing and strengthening the technical content of the RDMA Hub’s Power Sector Learning Series; G-PST; the Energy Utility Partnership Program, “EUPP” which is a cooperative initiative of USAID and the United States Energy Association (USEA); and the National Association of Regulatory Utility Commissioners (NARUC) which operates partnerships that share experience among regulators, providing a platform for peer-to-peer and practical information exchange. Through these regional institutions and partnerships, SPP will engage with SEA utilities to develop opportunities to adopt and scale up leading practices and technologies within the region.

Sub-Task 1.1: Prepare utility assessments, strategies, and analyses of capacity needs.

SPP will conduct capacity assessments across SEA utilities, identifying areas to improve utility operations and financial performance. With these assessments, SPP will prepare Utility Strengthening Plans (USPs), linking key strengthening efforts to proposed technical support at regional and bilateral levels to operationalize these USPs. SPP may extend its regional technical support to several SEA utilities in series, wherever possible, in case such efforts cannot be offered through a regional platform, given the diversity of the SEA utilities.

In consultation with HAPUA and the ACE WGs, SPP will detail key utility improvement criteria. SPP will conduct consultations and assessments to select two utilities in Year 1 that hopefully have diverse levels of operational maturity. SPP will develop a set of criteria for utility improvement alongside USAID regional and bilateral programs. These are likely to include: (i) operational needs such as technical and non-technical loss reduction, utility governance, regulatory reporting, readiness for adopting AES and evolving business models, and intermittent resource grid operations as well as (ii) financial needs such as attracting climate finance, identifying, and mitigating financial risk factors, increasing financial transparency, and increasing competitive practices. SPP will conduct interviews with utilities, USAID bilateral programs, regional bodies such as HAPUA / ACE WGs, development finance institutions and other relevant donor programs. Utilizing this information in an Assessment Report, SPP will then form detailed USPs for these utilities in Year 2. In subsequent program years, SPP will conduct similar processes to develop USPs.

Sub-Task 1.1 Key Work Products	Q3	Q4
Brief report with recommended improvement criteria for SEA utilities	X	
Brief assessment report (~25 pages per utility) for two utilities		X

Sub-Task 1.2: Identify complementary power utility regional partnerships to augment ongoing efforts and expand tailored assistance to under-resourced technical areas and or individual utilities.

Utilities in SEA have two major advantages in forming partnerships: their existing and planned physical connectedness, and their diversity in maturity. These factors yield promising opportunities for knowledge exchange. This sub-task will identify ongoing efforts through HAPUA / ACE WGs, bilaterally (e.g., with Électricité du Laos, “EDL”; and the Electricity Generating Authority of Thailand, “EGAT”) and potentially trilaterally among utilities that enhance cooperation for increased effectiveness.

The SPP team will strengthen the regional cooperation and partnerships among utilities and identify potential opportunities to introduce leading practices from more advanced utilities either from them directly or through NARUC, G-PST Consortium and EUPP. Working with HAPUA and SEA utilities, SPP will identify the broad spectrum of operation areas for partnerships and partners and develop a prioritized list of potential partnerships. SPP will seek to identify at least one potential partnership for Year 1, with opportunities for continued growth in subsequent years, drawing on this prioritized list.

Based on the identified opportunities, SPP will develop a framework for partnerships that outlines roles and responsibilities for stakeholders, lines of communications, procedures for co-designing training programs, exchange programs, and opportunities for joint commitments of resources. SPP will develop this framework in collaboration with appropriate interagency and bilateral partners. The SPP team will work closely with USAID to identify short- and long-term goals in establishing new partnerships in line with SPP goals and broader USG initiatives. In Year 1, SPP will prepare a report that outlines the broad areas of agreement for such a framework for partnerships.

In Year 1 SPP will also initiate a partnership dialog between a recipient SEA utility and a partnering SEA utility and / or partners such as NARUC, G-PST, and more advanced utilities. SPP will conclude the dialogue based on the framework developed in early part of Year 2 and begin providing technical assistance as appropriate to the partnership in the following years.

Sub-Task 1.2 Key Work Products	Q3	Q4
Partnership framework report (~25 pages)		x

Sub-Task 1.3: Design and facilitate needs-based training for all levels of utility staff associated with the focus areas of the partnership working groups.

SPP's approach to coordinate a successful sectoral transformation, such as the one facing SEA utilities, will be through significant capacity building which is required to ensure utilities' internal capacities do not become the limiting factor for development. SPP will work with HAPUA / ACE WGs, as well as through USAID bilateral programs as appropriate, to identify specific topics to enhance operational efficiency and utility modernization. During the first year, SPP will conduct two training programs at the regional level, one on technology deployment (e.g., advanced metering infrastructure and smart meters, load control and enabling technologies) and one on

utility innovation (e.g., blockchain applications for the power sector, or utility resilience). In parallel to general capacity building, SPP will design “train the trainer” sessions that help create a regional pool of experts and multiply the impact of individual training sessions. SPP will coordinate these sessions with relevant USAID offices and programs (e.g., especially for technical sessions on issues related to cybersecurity).

Given NREL’s significant presence in the region and stated willingness to collaborate on opportunities to enable the program, SPP will aspire to engage it and design a two-hour training session alongside the ongoing Power Sector Learning Series. Additionally, SPP will organize a deep-dive workshop, thus convening two training sessions in Year 1.

SPP will work to increase the participation and elevate the roles of women in the power sector. SPP training programs will utilize marketing, networking, representation, and facilitation techniques to strive for an appropriate gender balance. Building off of its own Gender Equality and Social Inclusion (GESI) analysis that will involve comprehensive stakeholder consultations with key players such as the USAID Enhancing Equality in Energy for Southeast Asia (E4SEA) and Engendering Industries programs, USAID bilateral programs, and other entities and experts in the region that are already focused on promoting gender equality and women’s participation in the sector, SPP will assess, identify and prioritize entry points for women’s increased engagement and appropriate skill development in the power sector with a regional focus. This exercise will be concluded in Year 1, followed by implementation in subsequent years.

Sub-Task 1.3 Key Work Products	Q3	Q4
Curriculum design report for two training sessions in Year 1	x	
Brief summaries of the two training sessions		x
Assessment report: Powering and Empowering Women in Southeast Asia		x

Sub-Task 1.4: In collaboration with private sector partners, design, and coordinate implementation of pilot projects to demonstrate a business and analytical basis for how adoption of improved operational practices and/or technological upgrades can result in sustained operational performance of member utilities.

Utilities in SEA would benefit by adopting technologies that improve digitalization and modernization yet reaching scale can be difficult when local case studies for successful implementations are limited, capital deems innovative technologies too risky, or utilities cannot integrate external vendor capabilities into current processes and procedures. Additionally, building the case to regulators for such investments may require a standard of proof not currently available in the local market, thus requiring significant proof of concept through pilot programs to justify rate payer funds. This sub-task will orient utilities to be better prepared and test out new technologies and evolving business models and thus move towards modernization.

SPP will explore opportunities to identify such pilots through bilateral discussions with utilities and prepare to launch a call for proposals seeking responses from a broader set of participants including SEA Utilities, local and international private sector entities, and non-governmental organizations where appropriate. SPP may consider utilizing a model like BGrimm’s approach in Thailand where an MOU with the Provincial Electricity Authority (PEA) and the Metropolitan

Electricity Authority (MEA) provides for expanding service area coverage, micro/mini grids, and embedded generation using renewable energy. As a part of this preparation for a call for proposals, SPP will design a framework to select potential pilot projects for non-exclusive pre-feasibility discussions. Pre-feasibility discussions will identify the readiness of the executing team, viability of the concept, and suitability of funding sources move at least one pilot project to detailed design and implementation stage. SPP anticipates supporting pilot projects through its Grants under Contract (GUC mechanism).

Sub-Task 1.4 Key Work Products	Q3	Q4
Brief assessment report that outlines priorities for operational improvements and utility modernization technologies and business models		X
Preliminary design report for a Call for Proposals		X

TASK 2: ENERGY EFFICIENCY: SOUTHEAST ASIA'S ENERGY SECURITY CORNERSTONE

There is considerable disparity among SE Asian countries in their adoption of energy efficiency programs. Some countries, like Thailand, have pioneered energy efficiency standards and labeling programs, and have a long history of utility DSM programs targeted to all consumer sectors. Other countries such as Laos have done little work in either area. The remaining countries such as Vietnam, Indonesia, and the Philippines fall between the two ends of this spectrum. SPP assistance will focus primarily in two areas: (i) increasing the efficiency levels of appliances and equipment sold in the region and on national governments' ability to support performance standards; and (ii) helping utilities understand how to manage overall demand and load shapes.

Prior experience and analysis of other USAID programs has demonstrated conclusively that energy efficiency initiatives – particularly those related to standards and labeling (S&L) – are among the most effective means of reducing GHG emissions for the lowest cost.

Sub-Task 2.1: Strengthen ministries' capacity for EE and S&L.

Improving the overall efficiency levels of equipment and appliances available within a country is a rapid and cost-effective way to increase energy efficiency. In addition to mandating increased efficiency, a country must have the ability to test equipment to ensure that it meets the mandated standards and, ideally, a labeling scheme that allows consumers to make informed choices. As noted above, there is wide variation across SE Asia in terms of countries' abilities to manage standards and labeling schemes.

During this initial year, SPP will focus on assessing the current state of each country's capacity around EE, and S&L. ACE has begun working in this area over the past two years, and SPP will work with it to develop an understanding of the situation within each country, and of the region's coordination efforts to date. SPP will also meet with CLASP and with the Lawrence Berkeley National Laboratory (LBNL), both of which are working actively in this space. For example, in preparation for a SEA regional workshop to be held in 2020, LBNL drafted a "Southeast Asia Cooling Factbook" assessing the policy landscape for Indonesia, Philippines and Vietnam. This report covers aspects beyond minimum energy performance standards (MEPS) such as building codes, and beyond technologies covered by ASEAN-SHINE (e.g., commercial air conditioning). The workshop/report were never completed due to the emerging COVID-19 pandemic. SPP is also aware of other ongoing USAID work on regional energy efficiency, such as efforts under the USAID Scaling Up Renewable Energy program. ACE held two events late in 2021 that are directly relevant for this activity, focused on cooling and on lighting. SPP will build on these efforts.

SPP will also seek to understand the extent to which countries in the region are considering a harmonized label or quality mark (Energy Star is the best known of these) and will identify ways to support that work. A goal for this year is to develop an understanding of the S&L framework in each country, and to identify what work already in progress and the network of donors and supported efforts. While some countries like Thailand have relatively advanced S&L schemes, others like Cambodia and Laos have none. Most countries lie somewhere in the middle. Once SPP has collected the relevant information, it will develop a list of priority countries and

government entities with which to work in each. Should information not be readily available for some countries, SPP will develop that information, working closely with ACE to access current data from its member countries. SPP anticipates producing working papers on several countries.

In defining its approach to advancing S&L, SPP will take note of the particular circumstances of each country in the program, noting that some are at lower maturity stages with their S&L programs or have not begun work in this area. SPP will design its mix of activities accordingly, and also anticipates that country maturity to be one of the criteria to prioritize countries in which to work. SPP will also look for ways in which the ministries and standards organizations in more mature countries can share lessons with those that are beginning.

As noted above, ACE held two regional events around S&L in 2021. SPP will look for opportunities to collaborate with ACE and other organizations working in this space on workshops and similar activities this year, with a focus on regional standards harmonization. SPP will also explore the potential to “twin” countries so that those countries that are just embarking on S&L can learn from those that are further along. By the end of Year 1 SPP will have identified two such partnerships. SPP will draft language for a Letter of Collaboration to be signed between the partner countries, with the goal of obtaining their approval.

Additionally, SPP will explore using the Power Sector Learning Series to reach a broad audience across the region, since it has a proven track record of attracting the private sector stakeholders who will be key to enabling innovation and scale in the region.

Sub-Task 2.1 Key Work Products	Q3	Q4
Brief report that summarizes S&L status across the region	x	
Working papers on at least three countries		x
Draft Letters of Collaboration for two S&L partnerships		x

Sub-Task 2.2: Coordinate regionally to strengthen utilities’ capacity for demand-side management (DSM), and planning units’ capacity to assess energy efficiency as a resource to help manage increased load.

Some SEA utilities, such as EGAT and Electricity Vietnam (EVN) have offered DSM programs for over 20 years. Others have done very little work in this area. SPP will coordinate with HAPUA to assess its members’ capacity to design, plan for, and implement energy efficiency and demand response programs both overall and across various end-use sectors

SPP will develop an action plan that recommends with specific utilities and regional initiatives to support. The action plan will describe the associated activities, such as regional knowledge sharing sessions where those utilities with advanced programs share lessons learned with those that are in initial stages.

SPP will also address how utility planning units can best consider how to manage system impacts from increased cooling load. That management may come from traditional energy efficiency programs that promote efficient cooling, from load management and demand

response, or from a combination of the three. This year, SPP will focus on assessing planning unit capabilities, working with HAPUA, bilateral missions, and USAID's bilateral implementers. SPP will consider current activities of the NREL/LBNL collaboration with Philippines DOE towards: 1) modeling and integrating energy efficiency in load forecasting; (2) organizing training workshops for national planning staff on load forecasting and (3) sharing best practice on data collection, modeling methods and integrating EE in planning; and how this might be broadened to address other major economies such as Indonesia and Vietnam.

As SPP assesses their capabilities, it also will explore the extent to which planning units understand the financial benefits associated with DSM, and how to include it as part of an IRRP. SPP anticipates that ongoing work with the region's utilities will address both IRRP and tariff impacts. SPP will produce an action plan that will inform program planning and activities for Year 2.

Sub-Task 2.2 Key Work Products	Q3	Q4
Action Plan for enhancing utility capacity DSM		x
Action Plan for enhancing utility capacity for load control.		x

Sub-Task 2.3: Support bulk procurement of key EE technologies.

Bulk procurement has the potential to jump start new technology adoption and must be handled carefully to avoid distorting the market. SPP will analyze where bulk procurement programs have been successful globally and regionally, what factors have contributed to their success, as well as where such programs have not done well. This may include, for example, the experience of USAID clean energy programs in other regions such as Southern Africa. SPP then will assess to what extent the success factors are present in SEA, both regionally and in individual countries, as well as ways to mitigate the risks and factors that contributed to less successful implementations. This may include, for example, whether conditions in some or all the SPP countries are favorable for the definition and harmonization of technical requirements for qualified equipment.

SPP will conclude the year with a roundtable to bring together key stakeholders within SEA, including the Asia-Pacific ESCO Industry Alliance (APEIA) and ACE, along with sponsors of bulk purchasing programs in other parts of the world. The roundtable will capstone the publishing of the memo, and begin discussion, design, and consensus building of a framework for establishing bulk procurement programs in SEA.

SPP will involve its nascent Center for Competitive Procurement (CCP) in the roundtable since any future bulk procurements will be conducted with the Center's involvement.

Sub-Task 2.3 Key Work Products	Q3	Q4
Assessment memorandum		x
Brief report of the roundtable and next steps		x

Sub-Task 2.4: Support regional coordination for advancing MEPS and regional harmonization.

As noted above, ASEAN countries already are working to harmonize minimum energy performance standards (MEPS) for air conditioning in the region. SPP will consult with ACE, ASEAN SHINE² and CLASP³ to identify how we can help support this effort, which offers an opportunity for near term progress. Increasing the efficiency of cooling is an important priority for SPP, one that offers co-benefits of reducing short-lived climate pollutants such as HCFCs. At the conclusion of these meetings, SPP will produce a stakeholder engagement memo that lays out how SPP plans to work with these groups going forward.

Once SPP has assessed the status of MEPS in the region, SPP will propose a roadmap for advancing MEPS in the region. The roadmap will identify priority countries and technologies, and timing for addressing those technologies.

SPP also will work with CLASP, which has a testing center tracker, to identify what testing centers currently exist and what others are needed. Because so much work has been done in this area, SPP should be able to summarize where additional testing facilities may be needed (e.g., both by location and equipment) and recommend how USAID can best support EE testing moving forward. This might include, for example, tracking the energy efficiency and price of major appliances.

Sub-Task 2.4 Key Work Products	Q3	Q4
Brief report on stakeholder engagement	x	
Roadmap for advancing MEPS in the region, with emphasis on testing centers		x

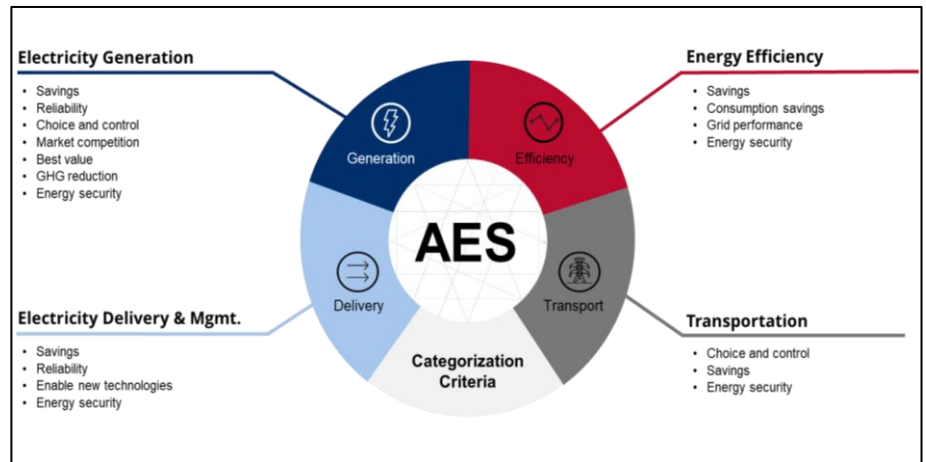
² ASEAN SHINE is a public-private partnership between the United Nations Environment Program (UN Environment) and the International Copper Association (ICA). The program supports the United for Efficiency (U4E) Initiative, which is a global effort supporting developing countries and emerging economies to move their markets to energy efficient appliances and equipment under the Sustainable Energy for All (SE4ALL) energy efficiency goal.

³ When it was launched, CLASP was an acronym for the “Collaborative Labeling and Appliance Standards Program”. However, CLASP is now the formal name of the organization rather than an acronym.

TASK 3: SEA ENERGY INNOVATION AND EMERGING TRENDS

Advanced Energy Systems (AES) are a collection of technologies, resources, and services which enable clean, reliable, and resilient power. AES includes a diverse portfolio of renewable energy generation, sophisticated energy delivery and management technologies, leading-edge energy efficiency technologies, and electric transportation charging infrastructure. AES can demonstrably reduce greenhouse gas emissions and create dynamic and flexible power markets while simultaneously improving utility operations and financial viability. AES enables the diversification of energy services and encourages competition and innovation while driving down costs to meet evolving energy needs. Furthermore, through AES technology and its application disruptions such as those caused by climate impacts and the associated costs as well as the threat of cyberattacks may be better managed to protect power markets.

However, achieving these goals in Southeast Asia, one of the fastest growing and most diversified and dynamic power markets in the world, will require significant upscaling of AES, support for associated enterprise models, and appropriate policies to attract investment and project development.



Under Task 3, SPP will support regional efforts to deploy AES by demonstrating their value to policy makers, regulators, utilities, corporates, and other stakeholders through pilot project solutions. This support will be built through relevant partnerships with existing organizations (e.g., ACE), platforms, and initiatives (e.g., Advanced Energy Partnership for Asia) to identify key regional solutions, collaboration opportunities for demonstration projects with cross-functional stakeholders and enabling cross jurisdiction knowledge transfer. Initially, landscape assessments will be developed to assess and leverage prior efforts and to identify potential technology and pilot projects while also considering country level legal and regulatory frameworks. Assessments will also include consideration of air pollution sources to coordinate management plans with relevant stakeholders. Finally, the initial concept design for a revolving, early-stage investment fund will be prepared for review by USAID, and which can be used to catapult deployment and scale-up of transformative energy startups that promote and deploy AES such as e-mobility apps, peer to peer (P2P) trading, load control, and air pollution monitoring.

Sub-Task 3.1: Identify and support regional trends and opportunities for emerging solutions.

SPP's support for emerging AES trends and opportunities requires an initial appraisal of existing projects and technologies. SPP will begin this process with an initial evaluation of country-specific reports that detail the current state and relevant programs for AES in ASEAN Member States (AMS). Concurrently, SPP will conduct additional assessments to fill in information gaps, as needed. The relevant information will contribute to an interim report that describes public and private sector AES developments, market opportunities, and challenges for deployment of innovative energy technology solutions.

SPP will conduct additional primary research through targeted roundtable workshops with private sector consumers and investors, public sector power market stakeholders, technology solutions and service providers, utilities, and financial institutions including climate finance capital. SPP will leverage this primary research to identify additional gaps in current and future AES solutions, emerging trends which meet sustainability strategies, and determine appropriate emerging AES business models. Both the interim report and primary research will align identified technology solutions with Figure 1 criteria to support the focused identification and selection of AES solutions that provide clean energy solutions for the region, fit within selected current and near-term power market legal and regulatory frameworks, are scalable, and which offer the potential to enable utility reform, power market transformation, and increased stakeholder capacity. For example, among the key advanced energy systems SPP will assess and consider for support include appropriate EV infrastructure, RE generation, non-wire alternatives (NWA), advanced metering infrastructure (AMI), and Internet of Things (IoT) applications.

Together, the interim report and primary research will yield a single AES Regional Landscape Assessment that will guide the design of demonstration projects, pilots, accelerators, and SPP's Revolving Fund in year 2 and beyond, showcasing AES value and benefit, supporting policy development, and enabling environments for AES to reach regional scale. Future, delivery, and deployment of demonstration projects will be accomplished through regional partnerships such as the Corporate Clean Energy Alliance (CCEA) and the soon to be launched Southeast Asia Center for Competitive Procurement (CCP) and so partners will be instrumental in development of the final landscape assessment.

Sub-Task 3.1 Key Work Products	Q3	Q4
Interim AES regional landscape assessment report		X

Sub-Task 3.2: Analyze SEA's major sources of air pollution and, in coordination with USAID Missions develop country specific management plans in coordination.

The International Energy Agency (IEA) estimates nearly a 45% increase in premature deaths due to outdoor and household air pollution in the region by 2040 compared to 2018. Within the SPP countries there is still considerable debate about the emission sources of various pollutants and hence on the appropriate mitigation strategies.

In Year 1 SPP will review the current data on air pollutant source characterization available from sources such as Mekong Air Quality Explorer (MAQE), supplemented by other available reports, and produce a report identifying the major gaps and exploring emerging methods and trends including air sampling; machine learning and artificial intelligence approaches from satellite imagery; and integration of small-scale data sets (e.g., from distributed IQAir units). Working with ADPC and the SERVIR-Mekong program, the Clean Air Catalyst program, and potentially ACE (drawing on its related work from the AIMS II study) and NREL, SPP will outline mechanisms to improve data availability such as expanding the capabilities for air quality assessment in the region to advise and catalyze countries to take a science-based approach to source characterization.

SPP will assess the readiness of countries to formulate and/or strengthen air quality management plans, in consultation with bilateral USAID Missions, which can then form the basis for SPP's work in Year 2.

Sub-Task 3.2 Key Work Products	Q3	Q4
White paper (30-40 pages) on adequacy of existing data sources and roadmap for enhanced data quality		x

Sub-Task 3.3: Where the generation, transmission and/or use of energy is a significant source of air pollution, support developing a regional strategy focused on energy policy and investment to mitigate air pollution.

The energy sector significantly influences air quality in the region through pollutant emissions across the entire value chain of generation, transmission, distribution, and end use. SPP will develop a regional strategy to reduce energy-sector emissions. This Sub-Task will commence with an analysis of available data (drawing on the findings of Sub-Task 3.2). SPP will then generate a list of potential interventions; categorizing them as near-term, medium-term, and long-term. SPP's will outline a roadmap to implementation of these interventions, identifying investment needs. In subsequent years, SPP will use this to help bilateral USAID missions enhance their existing the air quality management activities or initiate direct interventions as appropriate. SPP will prepare a report that documents the analysis and proposes a roadmap.

SPP intends to integrate the role of the corporate sector not only to push for increased generation using clean energy sources on one hand, but also to use their influence to mitigate the impacts on air quality of existing practices. SPP will work with private sector entities, such as the Alliance for Clean Air and others and bring the convening power of organizations and programs such as the Climate and Clean Air Coalition (CCAC) and Clean Air Catalyst.

SPP will provide an analysis of the policy landscape relevant to the power sector in the program countries that has an influence on air quality and provide recommendations. Adoption of a roadmap and its implementation, as noted above, will be dependent upon the existing policy landscape in the respective country. Any gaps identified, including barriers will be areas which can then form the basis for SPP's work in the subsequent years. These findings and recommendations will form a report.

Sub-Task 3.3 Key Work Products	Q3	Q4
A report (45-50 pages) on current impact of the power sector on air quality and a roadmap for air quality improvement		x
A report (25-30 pages) on policy landscape impacting air quality in the power sector		x

Sub-Task 3.4: Support national or multi-country corporate procurement aggregation.

Under this sub-task, SPP will build support for national and multi-national corporate procurement programs by collaborating with and continuing to build meaningful partnerships established under RDMA's regional Corporate Clean Energy Alliance (CCEA), with USAID missions, other USG entities such as Department of State, the private sector, and USTDA, among others. Such partnerships will further the establishment of a corporate procurement Working Group (WG) and will leverage the Southeast Asia Center for Competitive Procurement (CCP) that SPP establishes under Task 4.

Initial work will focus on the collaboration necessary to create a corporate clean energy procurement playbook, using the Sub-Task 3.1 Regional Landscape Assessment reports to identify technology and regional areas of focus, support design of new and existing policy development which enables procurement aggregation, coordinate relationships between developers and consumers, and identify appropriate financing opportunities. SPP will also leverage the Sub-Task 3.1 Landscape Assessment to better understand the diverse and distinct individual markets, legal basis, and deployment characteristics of each AMS. For example, SPP will consider opportunities by including a regional review of the various legal frameworks which would allow corporate power procurement, identifying consumer appetite and operational demands in the various markets, and developer and financing appetite. The results will accelerate deployment of VRE, EE under Sub-Task 2.3, and other relevant clean energy enabling technologies. Workflows will be harmonized internally with other tasks such as Sub-Task 3.1 and Task 4 to efficiently coordinate design and development of policies and programs, pilot projects, and access to funding to advance deployment of AES across ASEAN.

Finally, SPP will build support for CCEA overarching coordinating strategy which includes additional internal and specialized sub- WG's. Various sub-WG's will lead design of appropriate strategies and coordination with various external partnerships (e.g., equipment and service providers and investors); business organizations and associations; and relevant USG agencies. Each sub-WG will focus on one aspect of corporate procurement which enables access and procurement of clean energy across AMS.

Sub-Task 3.4 Key Work Products	Q3	Q4
CCEA Clean Energy Corporate Procurement Playbook		x
Report on CCEA regional and country level clean energy procurement strategies		x
Summary reports on at least one CCEA training session on regional corporate procurement leading practices		x

Sub-Task 3.5: Provide technical assistance to utilities or operators for wheeling or interconnection guidelines for DPPA.

SPP will coordinate and align this work with Task 5 Power Trade and Grid Integration to include a fact finding and review process that assesses wheeling and interconnection guidelines and identifies other regulatory and policy efforts with regional partners such as HAPUA and ACE and through companion initiatives such as the Department of State's support for JUMPP and from other USAID programs in regions such as Southern Africa and Eastern Africa.

The review process will identify existing wheeling methodologies such as those used in the Laos-Thailand-Malaysia-Singapore Power Integration Project (LTMS-PIP), regulation design, and active efforts being implemented to achieve similar goals across AMS. The review process will also coordinate with SPP's work on Task 1 Southeast Asia Power Utility Modernization, as well as Task 5 as noted, to develop existing and potentially new technical and policy guidance that enables wheeling and interconnection for DPPAs by geographically dispersed corporate power consumers as well as supports cross border power trade, improves grid resiliency, and identifies potential electricity delivery and management technology implementation opportunities. Concurrently, SPP will assemble a roster of country level, regional, and international experts through the CCP and coordinate with relevant partners to provide Technical Assistance that supports partner activities which promote wheeling and interconnection to regional utilities, regulators, and other power market stakeholders.

Sub-Task 3.5 Key Work Product	Q3	Q4
Regional Wheeling and Interconnection Status Report		x

Sub-Task 3.6: Design and administer support for early-stage energy management startups.

Start-ups in SEA face daunting obstacles accessing relevant and connected champions; preparing and pitching business plans; and accessing seed funding. While there may be available capital in the region, it is often accessed through informal and personal channels, and is often conservative, conditions which can hinder innovation and scale. Coordinating start-up entrepreneurs, investors, advisors, mentors, and other relevant stakeholders requires a platform with regional experience and networks, and access to appropriate funding that can leverage both breadth and depth of impact.

In year one, SPP will conduct reviews of existing support mechanisms such as the Private Financing Advisory Network (PFAN), New Energy Nexus (a subcontractor of the USAID Vietnam Low Emission Energy Program II and a grantee of the USAID Vietnam Urban Energy Security Program) and the knowledge base of USTDA to determine to whom, when, and how these organizations might provide start-up support more broadly across the region. In addition, SPP will collect primary data through stakeholder roundtable discussions to define startup needs and identify potential solutions. These reviews will help identify gaps between needs and support, determine how SPP can bridge such gaps, and support the development of a concept note for an SPP early-stage energy management startup support mechanism that complements and extends the reach of existing programs. For example, the mechanism could include business development, a revolving fund, a Grants Under Contract (GUC), and non-financial

support such as matchmaking, direct one-on-one assistance, and a business plan competition. The research will define critical elements for successful support mechanisms and may include (i) the mechanism's approach to align with USAID objectives, (ii) key roles and responsibilities for management, advisors, and mentors, (iii) value proposition for early-stage companies and how this support program is different than other sources of support. The support should be additive to existing programs while enabling program sustainability. SPP will focus particular attention on energy startups that promote regional demonstration and deployment of AES including e-mobility apps, P2P trading, load control, air pollution monitoring, among others.

Year 1 activities will include development of a needs assessment which identifies and assesses potential partners, reviews similar past and present programs, and aligns stakeholders needs with support options. The assessment will inform design requirements, regional needs, and participant needs.

Sub-Task 3.6 Key Work Products	Q3	Q4
Brief report that presents a needs assessment and proposed solutions to design and administer support for early-stage energy management start-ups		x

TASK 4: SOUTHEAST ASIA CENTER FOR COMPETITIVE PROCUREMENT (CCP)

Fragmented procurement procedures coupled with lack of professional expertise have resulted in an uneven platform for international firms to compete within SEA. Additionally, the procuring organizations themselves continue to be at a disadvantage without access to the best commercial rates, prices, and terms in the market. AES deployment creates an additional level of challenge due to lesser familiarity.

This task will aim to create an SEA CCP as a central clearinghouse of leading practices and technical assistance on transparent, competitive procurement processes. The CCP will be key for efficiently and equitably mobilizing \$2B in finance and deploying 2,000MW of AES. The CCP will address weaknesses in public procurement, strengthen the region's ability to attract financing, and support regional trade.

SPP will work closely with government and private sector procurement agencies, regulators, SEA utilities, and energy service companies (ESCOs) to support and strengthen their competitive procurement processes. SPP also sees the need to cooperate with technology and service providers in this sector and will work with them as appropriate. SPP shall also seek to work with other donor programs in the region providing funding for such procurement during the tenure of SPP.

The CCP will support Sub-Task 2.3 on bulk procurement for energy efficiency technology, Sub-Task 3.1 in increased deployment of AES technologies, Sub Task 3.4 on aggregated procurement of RE power under the CCEA initiative.

Sub-Task 4.1: Establish the CCP.

SPP will establish an ASEAN Center for Competitive Procurement (CCP) to support the competitive procurement process in the region and build capacity for competitive processes (e.g., auctions). SPP will design the Center in consultation with key stakeholders (e.g., government and private sector stakeholders, utilities, technology and solution providers, service providers) to identify a practical structure and lay out robust management practices. Within SPP's efforts as well as through regional adoption, the CCP will serve as a center for hosting relevant technical and commercial information to support effective competitive procurement of AES, energy efficiency technologies, and potential RE auctions. Taking feedback from key stakeholders, SPP will analyze the various options for structuring and managing the CCP, such as infrastructure needs, compliance and regulatory matters, costs including identifying potential hosts – to potentially include prominent Thai universities, with regional focus and experience, such as the Joint Graduate School for Energy and the Environment (JGSEE), Thammasat University, Chulalongkorn University, King Mongkut University, and Kasetsart University.

SPP will design the CPP from the outset as a self-sustaining platform, structured to outlast the program's duration. While SPP support will be necessary in the initial years, the Center will be designed to transition to SEA operators for sustainable operation after the SPP program ends. SPP will submit a report providing the structure and operational aspects of CCP.

SPP will identify a list of relevant technologies and services, in consultation with SEA Utilities, governments and ESCOs (related to Sub-Task #2.3, under Task 2), the procurement of which may be supported by CCP. This will provide inputs for Sub-Task 4.2 to identify current technical standards, gaps and recommendations based on which SPP will work with other USG and private sector entities to develop them further in Y2. This consultation will additionally provide the opportunity to understand capacity gaps within these organizations to run such competitive procurement processes, which shall then provide inputs for the training outlined in Task 4.5.

Sub-Task 4.1 Key Work Products	Q3	Q4
A report (45-50 pages) on the structure, management of the CCP and a draft implementation plan		x
Brief report that recommends the technologies/service for competitive procurement to be supported through CCP and assessment of standards		x

Sub-Task 4.2: Work with other USG entities and the private sector, to develop technical standards and recommendations across a suite of technologies.

Standards are essential to the establishment of effective commerce and reduction of barriers to transactions through a common understanding of both commodities as well as more differentiated goods. This is especially important with innovative technologies in the energy space, as standards can rapidly raise the capacity of procurement entities while reducing the risk of a broad array of safety concerns with implementing new technologies into the grid. Leveraging the list of technologies/services as arrived at in Sub-Task 4.1, SPP will identify current standards applied in SEA, and will work with USG entities such as NREL and the Department of Commerce's Renewable Energy and Energy Efficiency Advisory Committee (REEEAC) to identify gaps in the standards and recommendations for further development. SPP will leverage the improved standard setting processes and policies developed in Sub-Task 2.1 for EE standards and labeling to create dialogue on recommended technical standards for select AES technologies. This gap analysis report will identify the status quo and present a roadmap to upgrade the standards over the coming years.

Sub-Task 4.2 Key Work Product	Q3	Q4
Report (25-30 pages) on gap analysis of existing standards in the region and recommendations for select AES technologies to set standards		x

Sub-Task 4.3: Support regulators and utilities in the design of competitive tender processes, IT Platform, key document templates, and review criteria.

For large, complex procurements to be conducted competitively, it is critical that SEA procurement entities foster competitive tender processes enabled with key elements such as a digital award environment and transparent review criteria. For example, within the U.S. government, procurement technologies and processes such as the System for Award Management, Acquisition.gov, and the Association of Procurement Technical Assistance Center have led to billions of dollars in successful AES procurements that have greatly supported the US government's own transition to the clean energy economy. SPP will begin this effort through a retrospective analysis of procurements in the region, engaging with regulators and utilities through HAPUA and ACE as well as relevant USAID bilateral programs. SPP will produce a

report containing recommendations for improving tender processes to increase competitive procurements through implementation or revision of standardized industry outreach processes such as Requests for Information, Industry Showcases / Roundtables, Requests for Proposals / Quotes, proposal reviews, bidder selections and negotiation, award processes and protests.

SPP will outline the key functionality required to establish enabling IT platforms that could act as digital award environments, enhancing clarity and transparency of procurement processes through features such as updating stakeholders on procurement progress, storing critical procurement templates and process details, and a record for procurement transparency. SPP will submit a report outlining the key functionalities and content requirements of such a platform.

Sub-Task 4.3 Key Work Products	Q3	Q4
Report (~50 pages) with initial recommendations for adjusting tender processes		x
Report (25-30 pages) on establishing a Digital Award Environment		x

Sub-Task 4.4: Provide expert advice on financing and guarantee options for auction design, PPAs, and other key contracts.

Regardless of their level of sophistication, power markets are improved through competitive procurement because it drives innovation, delivers faster project execution, creates significant cost reductions, and allows scaling for multiple projects so that government leaders can achieve policy and climate goals. However, without appropriate financing and guarantee options structured into the procurement, processes can lack diverse bidders, limit competition, enable entrenched players to dominate, and result in programs which do not meet policy maker expectations. For example, power purchase agreements (PPA) which do not reflect leading practice terms and conditions may not attract competitive financing. This increase in cost of capital may then be passed onto consumers, force developers to use inferior equipment to secure expected returns on investment, and potentially risk long-term operations of the power plant. Therefore, a key element of support provided by the CCP will include financing and guarantee options technical assistance (TA) for procurement processes and structures for both public and private sector procuring agencies. This TA will improve procurement processes and attract competitive financing.

Collaborating with partners such as ACE, USAID Missions, other USG entities, and the existing private sector network established through Task 3, the CCP will immediately identify areas of opportunity to extend TA to current and future public and private sector procuring agencies. This initial evaluation, conducted in collaboration with relevant partners will review existing procurement programs such as those in Laos, and those instituted by utilities, ESCOs, private sector consumers, and governments as well as prior procurement support provided through energy reform organizations and NGOs. The resulting assessment will identify potential financing bottlenecks which limit bidder participation and prevent competition. SPP will engage core delivery partners such as ACE to support design of such financial assistance activities, deliver trainings, and provide support for Task 3.1 AES projects.

Sub-Task 4.4 Key Work Product	Q3	Q4
Rapid procurement program assessment report		X

Sub-Task 4.5: Organize workshops and trainings to build capacity of interested parties in designing auction processes.

Auctions have been rare among SEA utilities in general and the need to procure AES widens the capacity in competitive procurement in SEA Utilities and other associated procurement agencies. To exploit the full potential of auctions, SPP will work closely with SEA utilities to examine prior experience (e.g., of the work performed by the USAID Clean Power Asia program) and to strengthen capacity in auction design to increase competitive procurement within the region. Working with HAPUA and the CCEA, SPP will identify a first cohort for conducting such a training. In Year 1, SPP will conduct a training for utilities/government sector entities on design and use of auction processes for competitive procurement, during which SPP will also assess gaps that may further inform the program on future technical assistance and design of Task 4.6 below. Trainings will detail how utilities can prioritize the variety of selection factors through an auction process, resulting in both a cost competitive and de-risked power asset development or concession and relevant case studies from within the region and others, also addressing some the insights gathered through Task 4.3 above.

SPP will also conduct a training for the auction of aggregated RE, for a broader set of stakeholders including the private sector, for activities in line with Task 3.4 & 3.5 above. SPP will seek to deliver these through ongoing training platforms in the regions such as RDMA's Power Sector Learning Series.

Sub-Task 4.5 Key Work Products	Q3	Q4
Report on a training session for utilities/government entities on auction processes for competitive procurement	x	
Report on a technical training session for aggregated procurement of RE		x

Sub-Task 4.6: Provide on-demand technical assistance to support partner countries to implement competitive procurement practices.

While the CCP is intended to provide broad and holistic guidance to conducting competitive procurements in the region, SPP understands that many procurements require dedicated support under unique circumstances – new technologies with limited producers, cross border developments requiring procurement coordination, and/or procurements from non-traditional procuring entities seeking to enter the market.

Working with HAPUA as well as embassy DEAL teams, SPP will identify potential areas of such technical assistance that could be offered and outline the processes of requesting such services through the CCP. SPP will conduct regular marketing of these services within the interagency environment as well as in regional bodies such as HAPUA. SPP will further dialog with the USAID Bilateral energy programs to identify potential needs of such services to plan for Year 2 activities.

Sub-Task 4.6 Key Work Product	Q3	Q4
Report on potential services and offerings of CCP		x

TASK 5: SOUTHEAST ASIA POWER TRADE AND GRID INTEGRATION

Regional power trade and the underlying need for grid harmonization present opportunities to enhance integration of VRE across the region and to strengthen the reliability of SEA power systems through access to ancillary services and larger system balancing areas, leading to a more robust transparent market. Such trade will enable countries to reduce national investments in power reserves maintained to meet peak demand, relying instead on the regional market to provide net-benefits such as a more reliable supply of electricity, operational efficiencies, reduced emissions of greenhouse gas and other pollutants, and increased consumer access to potentially cheaper and/or more environmentally sustainable sources of electricity in the subregion.

While significant opportunities exist for expanded trade, the SEA regional grids are limited in their ability to realize these benefits due to operational and flexibility concerns. Most cross-border trade is bilateral with interconnections usually state-owned. Bilateral agreements between neighboring countries may exist in terms of enabling cross-border exchange but trade has not fully developed. Accordingly, establishing electricity security regulations, coordinating planning, efficiently allocating the cost of transmission development, uniform network codes and system monitoring are among the requirements for a functioning SEA regional market.

The potential for regional interconnections is substantial, as indicated in the AIMS III report, which has identified some 19GW of capacity and will be fundamental to achieving ASEAN's 2025 RE targets. Accordingly, the overall objective of this task is to facilitate development of an interconnected regional grid and support existing efforts to develop regional frameworks and guidelines for enabling power trade.

SPP plans to fully leverage the substantial level of experience and deep knowledge base that exists regarding the APG and the development of a regional power market. this. Accordingly, as an overarching and cross cutting activity underlying our approach to Task 5, SPP will seek to form partnerships with key regional entities including ACE, RPTCC and HAPUA where we can provide support. SPP will also coordinate with JUMPP, ASEAN, Asian Development Bank, and the World Bank to ensure alignment in support for development of a regional market.

Sub-Task 5.1: Work with two or more countries to design, pilot, monitor, and track the outcomes of electricity trade coordination activity.

The objective of this sub-task is to provide support to implement a regional trade activity focused on two or more countries. This will require a well-defined implementation plan and agreement from country counterpart stakeholders. In Y1 SPP will engage and work with ACE, HAPUA, and RPTCC, and in alignment with JUMPP to understand the current regional trade situation for SPP countries and identify areas of needed support related to market structure, enabling legislation and regulation or other barriers.

To assist in selecting a short-list of options, SPP will conduct a screening assessment to triangulate the interconnections with spare capacity to facilitate trade and availability of RE resources. As a result of the above analyses, SPP will identify two or more participating countries with the most supportive trade environment with whom to engage. Subsequent steps will include meeting with the selected counterpart countries to introduce the assistance, obtain

buy-in and agreement to a letter of collaboration to proceed with the implementation plan, which would commence in Y2 with market design and initiation of pilot-to test the market design.

Sub-Task 5.1 Key Work Products	Q3	Q4
Stakeholder consultations report (e.g., covering ACE, HAPUA, and RPTCC)		X
Screening assessment report that identifies target countries		X

Sub-Task 5.2: Implement system flexibility solutions resulting from the regional grid integration study (AIMS III), and technically or materially support a stakeholder-driven process to identify high-priority interconnection project opportunities that increase grid flexibility / resilience and provide cost-effective access to new regional VRE sources.

This sub-task combines two of the requirements for Task 5 that focus on improving grid flexibility. The rationale for combining these is that SPP wants to provide a consistent approach that can be applied to identified high priority interconnection projects.

Grid flexibility refers to the capability of a regional power system to maintain balance between generation and load, resulting in increased grid efficiency, resiliency, and enabling deeper integration of VRE into the grid. Accordingly, the objective of this sub-task is to create a stakeholder driven process to identify solutions such as access to VRE, generation flexibly using gas-based generation and storage, coordinated system planning and balancing procedures and information management, as well as technical based solutions such as unified power controllers which will then be applied to specific high priority interconnections that will provide the most impactful regional path to increase grid flexibility.

The focus of year 1 will be to work with stakeholders at ACE, RPTCC and HAPUA to present the activity and secure buy-in. SPP will then review the most recent AIMS III report to identify and assess potential high priority connections based upon selection criteria such as access to VRE, grid characteristics and trade considerations. Based on the criteria employed SPP will then rank the interconnectors. Based on this assessment SPP will then hold meetings with these counterparts to review the results and seek comments. After these meetings SPP will finalize the selected interconnections which will form the basis for the assessment system flexibility solutions to be conducted in year 2.

Sub-Task 5.2 Key Work Products	Q3	Q4
Letters of Collaboration with ACE, RPTCC and/or HAPUA		X
Interconnection assessment report that identifies high-priority interconnections		X

Sub-Task 5.3: Support regional market design through development of legislative and regulatory frameworks, technical standards, grid codes, commercial rules, financial settlement terms, and mechanisms.

The development of a regional market mechanism has been an on-going work in progress in SEA. In order facilitate multilateral trade of electricity it will be necessary to enable open access; have protocols for sharing data and information for coordinated planning and development of the power infrastructure; improve coordination for the allocation of available cross-border

transmission capacity and develop and implement compensation mechanisms for open access to the grid such as transmission use of system (TUOS) charges.

The transition to achieve the above building blocks will need to be a well-planned and methodical process. The objective of this sub-task is to work with regional counterparts to move the process forward through well-designed components using an iterative approach that will result in improved market design. In year 1 the focus will be initially to meet with ACE and RPTCC. SPP will also coordinate with JUMPP and with the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), which has developed a regional road map on power system connectivity to understand the status of their roadmap. The purpose is to inform this activity and seek their perspectives on regional market design plans, commercial and technical barriers and specific country issues which will guide the country specific assessments. Based on this information and guidance, SPP will conduct deeper dive country assessments to gauge the current state of regional market participation, including enabling legislation, regulations, uniform grid codes and commercial/financial structures. Based on these meetings and assessment SPP will develop a roadmap for targeted support for specific counterparts with clear milestones to facilitate the regional market design. Lastly, SPP will engage with stakeholders to align on the roadmap and seek comments and buy-in from counterparts.

Sub-Task 5.3 Key Work Products	Q3	Q4
Summary report of stakeholder consultations (e.g., with ACE and RPTCC) on state of market designs	X	
Situation assessment report on regional markets and a recommended roadmap for regional market design		X

Sub-Task 5.4: Develop regionally acceptable methodologies to allocate costs of new cross-border transmission lines.

The objective of this sub-task is to propose and develop methods to increase transparency and utilization of cross border transmission lines and to improve cost efficiency. Developing a regional approach to allocating costs must consider not only the methods to estimate costs but also the how the costs of the project will be assigned to the different participating entities that use or benefit from the cross -border transmission project. All these considerations must also be aligned with the regulatory environment in each specific country.

SPP will commence by engaging with ACE and RPTCC to assess their current activities in cost allocation and open access; and will then develop a review of international and regional experience on cost allocation for cross border transmission lines. In addition, it will be necessary to meet with regulators in the region as they would be primary implementing partners. In this regard SPP will consider establishing a steering committee which would provide a uniform approach to agree the proposed methodologies. This would be considered in Y2. In Y1, SPP will conduct two regional information sharing sessions on alternative cost allocation approaches. SPP will also meet with ACE and RPTCC to assess the viability and application of Open Access Same-Time Information System (OASIS) and the Available Transfer Capacity (ATC), to calculate available space on cross-border interconnections.

Sub-Task 5.4 Key Work Products	Q3	Q4
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Summary report of meetings with ACE and RPTCC on cost allocation	X	
Report on leading international practices	X	
Summary report on two regional information sharing sessions on alternative cost allocation approaches		X

Sub-Task 5.5: Support ASEAN members to assess the feasibility of and financing options for one of the highest priority interconnection projects identified in the AIMS study.

The AIMS III masterplan has identified 19GW of potential interconnections. Based on the results of sub-task 5.2 SPP will identify high priority interconnections and this sub-task will build on that assistance. SPP will then coordinate with ACE and RPTCC to review the proposed interconnections and focus on selecting the highest priority interconnector which also considers deferral of fossil fuel generation, enhanced security, access to RE and enhanced competition in energy supply to identify the highest priority interconnection. SPP will then meet with the ASEAN member countries associated with the interconnection to promote SPP support and seek their agreement, This will be achieved by presenting a concept plan which maps out the requirements for conducting a feasibility and financing assessment which would commence in Year 2 with the overarching goal to promote the commercial viability and development of the interconnection and to introduce the role and mechanisms for public and private finance for cross border transmission lines.

Sub-Task 5.5 Key Work Products	Q3	Q4
Concept note that summarizes stakeholder consultations, identifies high priority interconnections, presents an approach to support feasibility and finance, and provides a framework Letter of Collaboration		X

TASK 6: ASSESS AND OPTIMIZE NATURAL GAS SYSTEM PERFORMANCE

Methane is a potent greenhouse gas which, according to the latest report by the Intergovernmental Panel on Climate Change (IPCC AR6: Sixth Assessment Report), accounts for about 0.5-degree Celsius net rise in global average temperature since the pre-industrial era. As a result, methane action is an essential component of energy sector decarbonization. One of the key outcomes of the COP 26 meeting was the agreement to a Global Methane Pledge committing to a collective goal of reducing global methane emissions by at least 30 percent from 2020 levels by 2030. Given this SE Asia can have an impact

The focus of Task 6 is to facilitate the transition to a cleaner energy system. SPP will coordinate with the Climate and Clean Air Coalition (CCAC), the Global Methane Initiative (GMI) and World Bank Global Gas Flaring Partnership (GGFR) to utilize their knowledge base and available tools to develop assessments of the methane emissions that result from oil and gas production, trans-ASEAN gas pipelines, and utilization. SPP will also provide capacity building on measures and methods to manage and reduce emissions. To achieve this outcome, SPP will undertake the following sub-tasks.

Sub-Task 6.1: Support national ministries, regulatory agencies, and gas system operators to measure, monitor, and manage the use of natural gas to minimize methane emissions, venting, and flaring

The objective of this sub-task is to provide targeted assistance to ensure the appropriate processes and tools are in place to optimize gas utilization which will result in lower methane emissions. In Year 1 SPP will conduct a two-stage gap assessment, building on the extensive international experience in management of methane emissions. The first stage will be a top-down situation assessment and involve meetings with USG interagency, CCAC, GMI, and GGFR to understand activities currently under way in specific countries in the region and provide a basis to identify countries that will be the focus of the second stage.

The second stage will employ a bottom-up approach which will entail SPP conducting deep dive meetings with ministries, regulators, and oil and gas majors to assess current processes, procedures and regulations in place regarding measurement, monitoring, and management. These meetings will also be important to establish relationships with country counterparts. Based on these meetings SPP will develop profiles of gas production and utilization in each country including policies and regulations and operating procedures impacting gas production and utilization resulting in a Gap assessment report which sets out specific improvements in the measure, manage and monitor processes. In Year 2 SPP will conduct workshops with country counterparts to present the findings of the report and develop a roadmap for implementation support.

Sub-Task 6.1 Key Work Products	Q3	Q4
Report that provides a situation assessment and gap analysis		X

Sub-Task 6.2: Reduce methane and black carbon emissions from the natural gas value chain

The objective of this sub-task is to identify, quantify and reduce emissions in key SEA gas systems. This sub-task will also build on the stakeholder relations developed in Sub-task 6.1 and the monitoring and management procedures to support stakeholders developed.

Y1 activities will focus on developing an assessment of the sources and quantities of emissions which will form the baseline for the development of an emission reduction plan in Y2. SPP will meet with counterparts such as CCAC, GMI, IEA and GGFR to assess current emission reduction activities and measurements and models currently being used. The purpose will be to estimate a baseline level of emissions from which reductions could be estimated. Based on these meetings SPP will assess initial target countries such as Thailand and Indonesia and identify sources and estimated levels of emissions such as production facilities and pipelines. SPP will evaluate the application of a GIS model to determine if this will aid in the selection of specific areas in each country and segments of the gas value chain.

After completing its assessment of regional opportunities to mitigate methane in the oil and gas value chain, SPP will convene a regional knowledge sharing workshop. Depending on the circumstances related to COVID-19 mitigation, this event might be in-person, virtual, or hybrid. SPP will seek influential co-sponsors such as ASEAN and the Global Methane Initiative and will provide opportunities for leading oil and gas companies in the region to share their approaches and successes. The desired outcome of the workshop is a stated commitment by regional bodies and companies for continued joint efforts to mitigate methane in the the gas sector.

Sub-Task 6.2 Key Work Products	Q3	Q4
Report on baseline methane emissions		X
Report on regional knowledge sharing workshop		X

Sub-Task 6.3: Expand the understanding and use of natural gas as a flexible and complementary power source for variable RE generation

RE generation is variable depending on weather and climate conditions and cannot always provide base load or meet peak load requirements. This requires flexible and quick start back-up energy capability. Increasingly batteries are being employed to achieve this; however, this option has not been widely adopted in SE Asia. Given this situation, gas generation represents one form of quick response reserves. This can be in the form of gas turbines or engines employed by utilities. Accordingly, the objective of this sub-task is to provide training to Ministries, regulators, and other relevant stakeholders information on the role and application of gas generation can play in load balancing and stability. In year 1 SPP will develop a strategic and associated training plan which will focus on expanding the understanding of natural gas's role in addressing VRE to be implemented over the life of the program.

Sub-Task 6.3 Key Work Product	Q3	Q4
Strategic training plan for utilization of gas-based generation		X

Sub-Task 6.4: Improve civil society participation in planning and advocacy through assistance to regulatory agencies and integrated resources planning processes, as well as improved environmental permitting processes.

The ability of civil society organizations such as non-governmental organizations (NGOs) to participate in the development of the power sector has been limited in SE Asia. In most cases it is a bilateral process by government agencies and the utility. A more open approach would benefit society by responding to development issues which are more inclusive. This could range from the application of more distributed RE resources to providing more protection for land acquisition for transmission rights of way or location of generation plants.

The objective of this sub-task is to promote a more multilateral approach to power sector regulation, planning, and environmental permitting where there is an appropriate governing environment. SPP will inform its approach based on a review of the role and activities of other USAID programs such as the Mekong for the Future program, advocacy groups and NGOs in the ASEAN region with respect to the degree of involvement in power planning and environmental permitting which will result in a provisional list of 3 or 4 countries. SPP will then consult USAID to design an approach (such as piloting activities in a selected target country and then expanding across the region; or initiating support at the start through more regionally focused activities.

Sub-Task 6.4 Key Work Products	Q3	Q4
Assessment report of role of advocacy groups regulatory and environmental planning and licensing/permitting and recommendations for approach for the associated workstream		X

OPTIONAL TASK 7: SPP U.S. TRADE AND DEVELOPMENT AGENCY (USTDA) TRANSACTION ADVISORS

SPP will develop its Work Plan approach for the Optional Task 7 and its associated sub-tasks when USAID exercises this option. As may be requested by USAID, the program will engage in preliminary meetings with USTDA and with others to advance the consideration of this Optional Task.

CORNERSTONE ACTIVITIES

Donor Coordination, Peer Exchange, and Knowledge Sharing

SPP's cornerstone approach is to work with existing regional institutions, alongside ongoing partnerships, and delivery channels. Section 1 lists and summarizes SPP's initial priorities among the plethora of existing regional institutions, partnerships and delivery channels. This will ensure maximum leverage of resources, reduce confusion among counterparts and stakeholders, and help ensure the sustainability of SPP's initiatives and results.

Donor coordination will begin with intensive efforts to align USAID's own activities, i.e., to ensure that SPP effectively complements the work of the USAID bilateral missions and their implementing partners, and those of central USAID offices and programs. SPP began this effort by conducting a Start-Up Workshop in its second month of operation, which initiated the first formal contacts. SPP will continue to cultivate these relationships, both through formal and informal channels.

SPP will similarly seek to collaborate with other donors, working through the USAID TOCOR and his colleagues to ensure a smooth partnership with other key programs, initiatives, partnerships, and delivery channels such as JUMPP – a cross-agency joint US-Japan partnership to promote sustainability across Southeast Asian power sectors.

SPP's approach to knowledge sharing will also tap existing channels. For example, SPP will collaborate with NARUC to help it identify and engage the appropriate regionally based utility and power system operator officials to participate in its programs, such as exchanges and training programs. SPP will also draw on other existing channels such as RDMA's own Power Sector Learning Series, and the Energy Working Group of the Asia Low Emissions Development Strategies Partnership (ALP) – which RDMA itself launched in 2012.

Gender Equality and Social Inclusion

SPP's gender equality and social inclusion (GESI) activities in Year 1 will be based on the GESI Analysis that will be completed by April 1, 2022 and a Gender and Inclusive Development Action Plan (GIDAP) which will outline how gender and inclusive development considerations will be integrated into program implementation and monitoring and evaluation and SPP's plan for mitigating the obstacles to gender equality and social inclusion.

The overarching objective of the GESI analysis is to improve SPP's understanding of important gender and social inclusion variables affecting the participation of women across the energy sector value chain as well as their access to energy across the region and use this understanding to design a GESI agenda for the life of the Program.

In line with USAID's Gender Equality and Female Empowerment Policy, which aims to advance gender equality and empower women and girls, SPP will integrate GESI concerns into the Program by implementing activities that enable women, household businesses (HBs), ethnic minorities, and other disadvantaged populations to directly benefit from SPP, including participating in training, networking, or other capacity building. Building the capacity and

incentivizing counterparts and stakeholders to adopt measures that provide income generating opportunities to women and other disadvantaged segments of the economy are also included.

The ongoing Enhancing Equality in Energy for Southeast Asia (EEE for SEA) Activity, which seeks to improve gender equality in the energy sector and to achieve a sustainable and secure industry and one which contributes to women and socially excluded persons' empowerment, conducted a GESI analysis in 2021 which identified the following gaps:

- a. **Law & Policy:** Policy and planning within the energy sector is overwhelmingly dominated by men, the majority of whom have technical backgrounds, and without the representation of women and others as workforce participants and users, the sector may proceed to be unable to meaningfully include them and derive important benefits. The strength of legal, policy and institutional frameworks for GESI, and the protection of fundamental rights, are generally present across the EEE for SEA focus countries. However, laws and policies regarding GESI, specific to the energy sector, vary widely across SEA and so do the perceptions, biases, and the status of girls and women in the energy sector.
- b. **Access to Resources:** Gaps and barriers to women's, girls', and socially excluded persons' equal access to resources such as education, health services, livelihood and employment opportunities, financial services, social protection, and technology, continue to persist across all focus countries. Access to education and access to employment opportunities are two of the major challenges required to be overcome to strengthen the participation of women and socially excluded persons within the energy sector.
- c. **Power and Decision-Making:** Due to women's perceived position in SEA society often being considered less than that of men, the result is a context where men are advantaged to be in positions of authority and power to not only dominate decision-making at the household level and the corporate level but also at national policy levels.
- d. **Roles and Responsibilities:** In many contexts across the SEA region, the traditionally assigned gendered roles and responsibilities are being challenged, as cultural and social norms have been transformed through growing awareness of, and national and international support and commitments to, the rights to gender equality and social inclusion. However, despite these advances, women continue to take on a 'double-role', comprising 1) reproductive responsibilities for the provision of care and maintaining the well-being of the family and the home and 2) working in paid productive employment due to economic necessity, making women more 'time-poor' than men
- e. **Knowledge and Beliefs:** Gender norms that reinforce the role of the man as the breadwinner and the woman as the caregiver persist across parts of SEA, with almost as many women as men believing that a man is more entitled to a job and that men make better business executives than women, within certain focus countries.
- f. **Human Dignity:** Despite commitments to human rights and global targets to ensure that all people can live in accordance with the values of human dignity, gender and social inequalities persist in the SEA region, having different impacts in various dimensions of individual's lives such as their ability to attend school, gain employment, and live a life in safety without fear of poverty, discrimination, or Gender -Based Violence (GBV).

SPP will use this gender analysis as initial input for its own GESI analysis, which will also be based on interviews with a range of stakeholders and a desk review of relevant literature. SPP's Gender and Inclusive Development Action Plan (GIDAP) will identify and schedule the various sub-tasks according to Technical Outcomes as well as sector-wide gender/social inclusion activities. The following includes high-level activities in Year 1:

- **Conduct GESI Analysis**, which will specifically set out to identify key gender and social inclusion issues, constraints, and opportunities in the Southeast Asian energy sector. The findings and recommendations are intended to support SPP in integrating gender equality, social inclusion, and women's empowerment throughout the program cycle. This will be done through desk review and stakeholder consultations.
- **Complete Gender and Inclusive Development Action Plan (GIDAP)**, which will describe how gender and inclusive development considerations will be integrated into program implementation and monitoring and evaluation and the Contractor's plan for mitigating the obstacles to gender equality and social inclusion. The plan will describe how sub-tasks will be planned, structured, implemented and evaluated to ensure gender and other social inclusion considerations are identified and prioritized as an essential element of discrete sub-tasks to maximize the sustainability and impact implementation efforts. The GIDAP will include: (1) a list of gaps/ constraints identified through the GESI analysis (in order of priority); (2) main entry points, which will cut across the program's outcomes and target geographies. These high-level entry points are areas in which gender equality principles and practices can be incorporated and will have the most meaningful impact on program implementation; (3) specific mitigation measures (actions) necessary to address and close the gaps; (4) indicators to measure progress; (5) how gender mainstreaming costs will be calculated at the input-level; (6) a messaging section that describes gender and social inclusion-related outreach to target populations, including success stories and social media; a plan for how the contractor will build gender-related competency with and for its own staff (e.g. training, mentoring, internships); an ongoing stakeholder list that tracks the sex and age cohort of primary stakeholders engaged and highlights the level and types of involvement of gender experts, women's associations and businesses, and other relevant organizations.
- **Identify and forge partnerships**. SPP will seek to partner with existing initiatives to leverage resources and build from ongoing work to maximize impact. SPP will also partner with local/regional organizations like universities to build local capacity and ensure long-term sustainability of our initiatives.
- **Conduct needs assessments, surveys**. Once we have identified entry points and identified specific interventions and partners/counterparts, SPP will conduct needs assessments to formulate our assistance (e.g., if we are providing gender mainstreaming assistance to energy agencies, we may conduct a survey to determine current policies, the organizational culture, level of management support, etc.).

SPP will prioritize collaboration within ongoing USAID gender activities such as E4SEA and the USAID Engendering Industries program, as well as collaboration with the broader development partner and civil society community.

Broadly, SPP will follow a two-track implementation approach to GESI mainstreaming – (1) integrating gender and diversity across all technical areas and sub-tasks, and (2) accelerating women's and other under-represented groups' opportunities for empowerment and leadership within the program and across the energy sector. Specific interventions will be outlined in our GIDAP.

MANAGEMENT APPROACH AND STAFFING PLAN

Management Approach

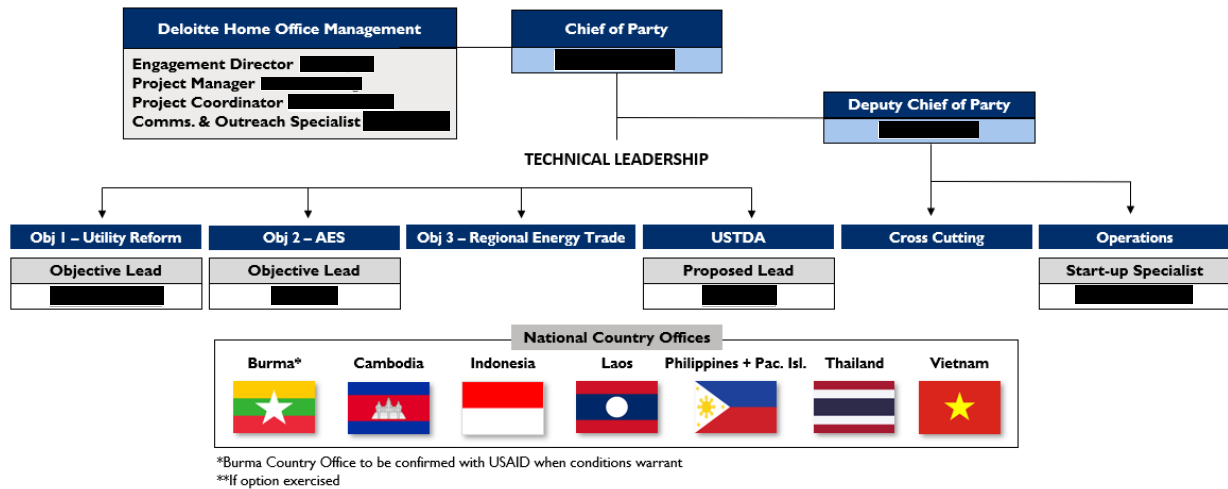
SPP will deliver on its Year 1 Work Plan with a flexible, streamlined delivery model consisting of a core long-term delivery team that actively collaborates across the tasks and activities, and draws support from specialized demand-driven short-term advisors. This will allow the SPP team to respond to opportunities, mitigate bottlenecks, and drive expected results across the region. The team will analyze and prioritize initiatives to ensure investment is focused on high-impact efforts over the next five years.

Quality Assurance. Home Office Engagement Director [REDACTED] will provide overall quality assurance and will advise the COP in development of the overall project strategy. Senior Project Manager [REDACTED] will oversee the operation of Home Office financial and administrative systems to support the timely mobilization of resources and adherence to contractual requirements. Project Coordinator [REDACTED] will provide day-to-day support to the Home Office and field teams. As part of SPP operations procedures, SPP will perform twice yearly Quality and Risk Management (QRM) reviews. Deloitte's QRM Leader, based in a US office, will conduct these reviews, as she has responsibility for providing overall quality and risk management support to SPP management for all SPP's overseas projects.

Management of Partner and Subcontractor Network. SPP will leverage Deloitte's network of member-firm offices in countries within SPP's geographic region and engage other local partners and subcontractors to strengthen connections and relationships as well as build a strong delivery team throughout the region. SPP will closely manage its subcontractors through well-defined scopes of work that include a clearly defined (i) problem statement, (ii) approach to delivery, (iii) proposed delivery team, (iv) expected impacts, (v) delivery schedule, (vi) set of work products and milestones, and (vii) expected impacts and results as they relate to SPP's overall program targets. Objective Leads are responsible for developing subcontractor scopes of work and overseeing delivery, in coordination with the Chief of Party (COP) and the Home Office Project Manager. In addition, in almost all cases resources from the SPP team will work alongside subcontractors on technical delivery to ensure an integrated and coordinated team.

Program Schedule, Budget, and Cost Management. SPP will monitor SPP activities and progress toward defined goals, objectives, and targets through Monitoring, Evaluation & Learning and other project management activities. SPP will establish procedures and tracking systems to help identify and analyze the impact of any potential changes to SPP's implementation strategy (in close coordination with the USAID TOCOR) in advance of any potential occurrence. Assessments on changes to scope will be conducted as needed to provide: (i) a comprehensive assessment of cost impacts, (ii) early identification of total costs, (iii) improved forecasting, and (iv) rapid evaluation of scheduling adjustments.

The SPP organizational structure is presented below:



The Chief of Party, [REDACTED], will be responsible for the overall delivery of SPP and will provide technical leadership, drive communications with USAID and other partners, and enable effective coordination across all SPP's activities. The DCOP/Operations, [REDACTED], will be responsible for in-country operations, finance, compliance, procurement, human resources, information technology, security, logistics and overall program management. She will lead the development and management of all the SPP operational, financial, procurement, and contractual tools and work products for the SPP. The Objective Leads will plan and oversee the execution of the tasks falling under their objectives, under the direction of the COP. They will oversee their respective teams of technical specialists.

Management Staffing Plan

The table below provides an overview of all proposed LTTA and STTA positions to provide technical and operational services under the Task Order.

Position Title	Primary Location	LTTA/STTA
Home Office Management		
Engagement Director	USA	STTA
Engagement Manager / GESI Adviser	USA	STTA
Engagement Coordinator	USA	LTTA
Field Leadership		
Chief of Party	Bangkok, Thailand	LTTA
Deputy Chief of Party/Operations	Bangkok, Thailand	LTTA
Objective 1 Lead	Bangkok, Thailand	LTTA
Objective 2 Lead	Bangkok, Thailand	LTTA

Objective 3 Lead	Bangkok, Thailand	LTTA
Task 7 Lead*	Bangkok, Thailand	LTTA
Country Coordinators	All SPP countries**	STTA
ASEAN Coordinator(s) (<i>potential</i>)	Jakarta, Indonesia	LTTA
Objective 1		
Metering and Loss Reduction Specialist	USA	STTA
Customer Engagement Specialist	USA	STTA
AES Specialist	USA	STTA
Utility Performance Management Specialist	USA	STTA
Cyber Security Specialist	USA	STTA
Utility Performance Specialist	Bangkok, Thailand	STTA
Objective 2		
Cooling Specialist	Bangkok, Thailand	STTA
Standards and Labeling Specialist	Bangkok, Thailand	STTA
Utility DSM Program Specialist	USA	STTA
Energy Efficiency Specialist	USA	STTA
ESCO and Procurement Specialist	Bangkok, Thailand	STTA
VRE Integration Specialist	Bangkok, Thailand	LTTA
Electric Vehicle Specialist	Bangkok, Thailand	STTA
Air Quality Specialist	USA	STTA
Geospatial Scientist	USA	STTA
Remote Sensing Scientist	USA	STTA
Corporate Clean Energy Adviser	USA	STTA
Renewable Energy Specialist	USA	STTA
RE Auction Design Specialist	USA	STTA
Procurement Specialist (DC Thailand)	Bangkok, Thailand	STTA
Energy Efficiency Capacity Building Adviser	USA	STTA

Objective 3		
Integration Engineering Advisor	USA	STTA
Transmission Specialist	USA	STTA
Regulatory and Pricing Specialist	USA	STTA
Power Trading Specialist	Bangkok, Thailand	LTTA
VRE Integration Specialist	Bangkok, Thailand	LTTA
Regional Gas Policy and LNG Specialist	USA	STTA
Natural Gas Adviser	USA	STTA
Regulatory Adviser	USA	STTA
Gas Policy/Regulatory Specialist	Bangkok, Thailand	STTA
Gas Sector Technical/Environmental Specialist	Bangkok, Thailand	STTA
Task 7		
Transaction Advisers	Indonesia, Philippines, Vietnam	STTA
Operations and Cross Cutting		
Work Plan Lead	USA	STTA
Start-up Specialist	USA	STTA
Grants Adviser	USA	STTA
Outreach and Communications Specialist	USA	LTTA
MEL Adviser	USA	STTA
Environmental Compliance Adviser	USA	STTA
Budget Adviser	USA	STTA
Finance and Administration Manager	Bangkok, Thailand	LTTA
Administration Officer	Bangkok, Thailand	LTTA
Grants Manager	Bangkok, Thailand	LTTA
MEL Specialist	Bangkok, Thailand	LTTA
GESI Specialist	Bangkok, Thailand	LTTA

Outreach and Communications Specialist	Bangkok, Thailand	LTTA
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*If USTDA option is exercised

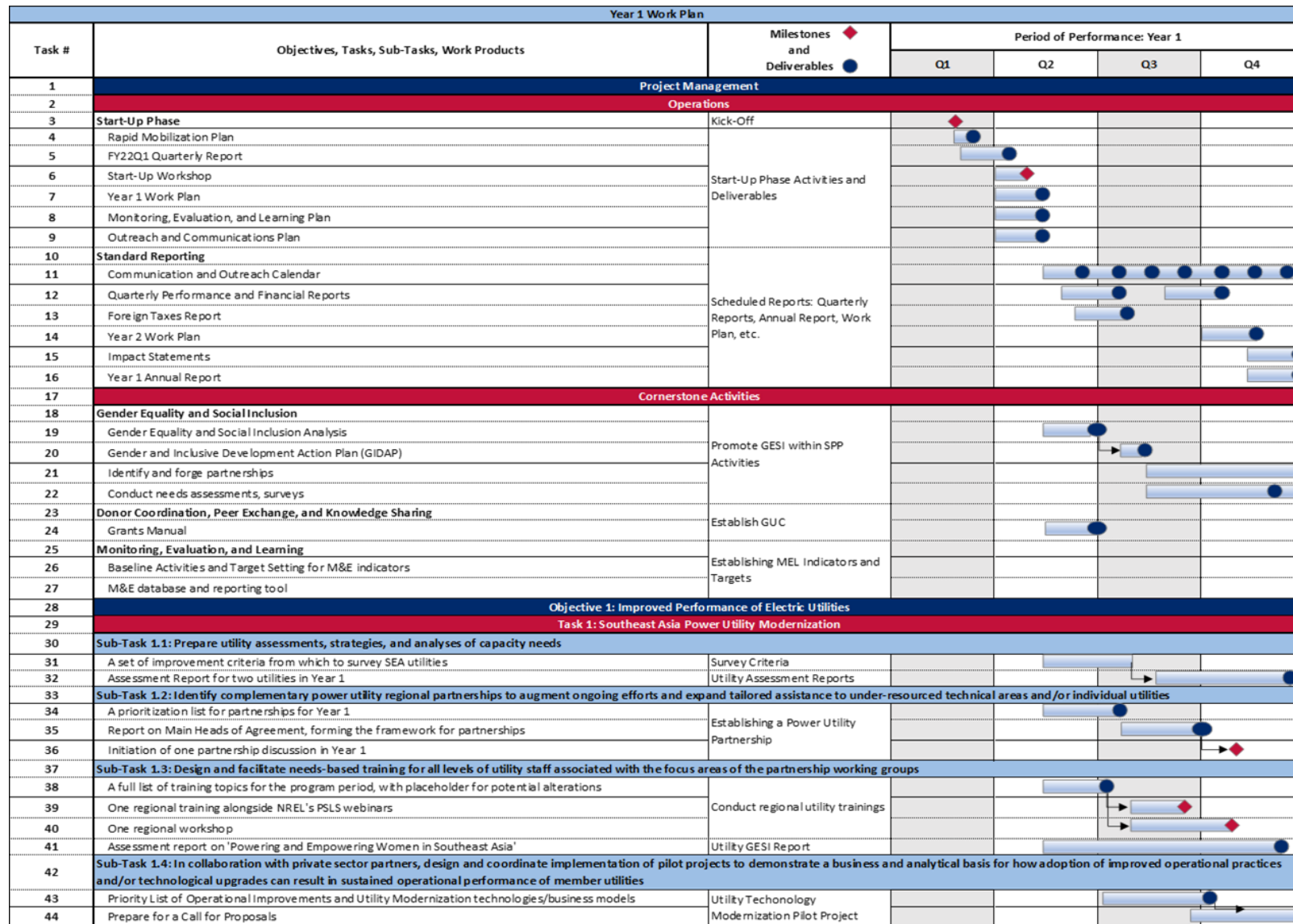
** Engagement in Cambodia and Burma subject to USAID approval

SPP will deploy short-term experts from a roster of on-hand STTAs available to aid on an as-needed basis. STTAs will be drawn from the US, internationally, or the region, with the ability to provide targeted short-term expertise when necessary. As SPP matures and staffing requirements evolve, SPP will continually monitor team capacity and staffing needs, while prioritizing effective and nimble delivery.

SECTION 2: IMPLEMENTATION BUDGET AND SCHEDULE

Following consultations with USAID on the initial draft of the Year 1 Annual Workplan that yielded consensus on selected activities and their implementation, the team prepared a budget as well as a Generalized Activity Normalization Timetable (GANTT) chart that depicts the schedule for the Tasks and activities in the first year. **See separate submission for cost information.**

GANTT CHART OF YEAR 1 ACTIVITIES



Year 1 Work Plan						
Task #	Objectives, Tasks, Sub-Tasks, Work Products	Milestones and Deliverables	Period of Performance: Year 1			
			Q1	Q2	Q3	Q4
45	Objective 2: Increased Deployment of Advanced Energy Systems					
46	Task 2: Energy Efficiency: Southeast Asia's Energy Security Cornerstone					
47	Sub-Task 2.1: Strengthen ministries' capacity for EE, standards and labeling (S&L)					
48	Status memo summarizing S&L status across the region	Engage Stakeholders				
49	Working papers on several countries, as needed					
50	Draft Memoranda of Understanding for two S&L partnerships approved	S&L Research and Partnerships				
51	Sub-Task 2.2: Coordinate regionally to strengthen utilities' capacity for demand-side management (DSM)					
52	Action Plan for enhancing utility capacity DSM	Utility DSM Assessment				
53	Draft Memoranda of Understanding shared with utilities targeted for DSM assistance	Identify utilities and develop a plan of activities for Year 2				
54	Action Plan for enhancing utility capacity for load control					
55	Sub-Task 2.3: Support bulk procurement of key EE technologies					
56	Assessment memo complete	Bulk Procurement Assessment Memo				
57	Bring together key stakeholders	Roundtable Memo				
58	Sub-Task 2.4: Support regional coordination for advancing minimum energy performance standards (MEPS) and regional harmonization					
59	Consult with stakeholders on how SPP can support MEPS efforts across the region	Stakeholder Engagement Summary Memo				
60	Develop roadmap for advancing MEPS in the region	MEPS Roadmap				
61	Work with CLASP to identify what testing centers currently exist and what others are needed	Testing Center Recommendation Memo				
62	Task 3: SEA Energy Innovation and Emerging Trends					
63	Sub-Task 3.1: Identify and support regional trends and opportunities for emerging solutions					
64	Interim SPP Current State AES Assessment Report	AES Regional Landscape Assessment				
65	AES Roundtable Workshop Primary Research					
66	Sub-Task 3.2: Analyze SEA's major sources of air pollution and, in coordination with USAID Missions, develop country specific management plans					
67	Review current data available from existing data sources and identify gaps, emerging methods, and trends	White Paper on adequacy of existing data sources				
68	Finalization of countries (upto 2) for Air Quality Management plan support in Year 2	Letter of Cooperation signed				
69	Sub-Task 3.3: Where the generation, transmission and/or use of energy is a significant source of air pollution, support developing a regional strategy focused on energy policy and investment to mitigate air pollution					
70	Analyze the policy landscape relevant to the power sector that have influence on air quality	Policy Analysis				
71	Generate a list of potential interventions categorizing by their implementation timelines and outline a roadmap to implement the interventions	Air Quality Report and Improvement Roadmap				
72	Sub-Task 3.4: Support national or multi-country corporate procurement aggregation					
73		Clean Energy Corporate Procurement Playbook				
74	Coordinate with CCEA for AES bulk procurement and deployment	Regional and Country level Clean Energy Procurement Strategies				
75		Training and Regional Corporate Procurement Leading Practices				
76	Sub-Task 3.5: Provide technical assistance to utilities or operators for wheeling or interconnection guidelines for DPPA					
77	Specific fact finding and review process that scopes current status for wheeling and interconnection guidelines	Regional Wheeling and Interconnection Status Report				
78	Sub-Task 3.6: Design and administer a revolving fund to support early-stage energy management startups					
79	Support Mechanism Needs Assessment	Gap identification				
80	Proposed Solutions for Early-Stage Start-Ups	Brief Report				
81	Task 4: Southeast Asia Center for Competitive Procurement (CCP)					
82	Sub-Task 4.1: Establish the CCP					
83	A report on the Structure, Management of the CCP and a draft implementation plan	Framework of the CCP				
84	Initial list of technologies/service to be procured through CCP and assessment of standards	AES Technology identification				

Year 1 Work Plan						
Task #	Objectives, Tasks, Sub-Tasks, Work Products	Milestones and Deliverables	Period of Performance: Year 1			
			Q1	Q2	Q3	Q4
85	Sub-Task 4.2: Work with other USG entities and the private sector to develop technical standards and recommendations across a suite of technologies					
86	Gap analysis of existing standards in the region and recommendations for select AES technologies to set standards	Gap Analysis				
87	Sub-Task 4.3: Support regulators and utilities in the design of competitive tender processes, IT Platform, key document templates, and review criteria					
88	Initial Recommendations for Adjusting Tender Processes	Best Practices Report				
89	Establishing Outline for Digital Award Environment Functionality	Report				
90	Sub-Task 4.4: Provide expert advice on financing and guarantee options for auction design, PPAs, and other key contracts					
91	Building expertise and providing technical assistance on financing and guarantee options	Rapid Procurement Program Assessment				
92	Sub-Task 4.5: Organize workshops and trainings to build capacity of interested parties in designing auction processes					
93	One training for utilities/government entities on auction processes for competitive procurement	Trainings/Workshops				
94	Sub-Task 4.6: Provide on-demand technical assistance to support partner countries to implement competitive procurement practices					
95	Work with HAPUA to list out technical assistance areas offered through the CCP	Description of services offered				
96	Objective 3: Enhanced Energy Trade and Integration					
97	Task 5: Southeast Asia Power Trade and Grid Integration					
98	Sub-Task 5.1: Work with two or more countries to design, pilot, monitor, and track the outcomes of electricity trade coordination activity					
99	Engage with ACE, HAPUA, RPTCC, and JUMPP to understand the current regional trade situation and identify areas of support	Meetings Summary Report				
100	Conduct a screening assessment to triangulate the interconnections with spare capacity to facilitate trade	Screening Assessment Report				
101	Use analyses to identify two or more countries with the most supportive trade environment	Engage with Countries				
102	Sub-Task 5.2: Implement system flexibility solutions resulting from regional grid integration study					
103	Engage with stakeholders to get buy-in	LOC				
104	Identify and assess potential high priority connections based upon select criteria	Interconnection Assessment Report				
105	Finalize the selected interconnections that will form the basis for the pre-feasibility studies and financing assessment in year 2	Identify Interconnections				
106	Sub-Task 5.3: Support regional market design through development of legislative and regulatory frameworks, technical standards, grid codes, commercial rules, financial settlement terms, and mechanisms					
107	Engage with ACE, RPTCC, JUMPP, and UNESCAP to understand status of the regional roadmap on power system connectivity	Meetings Summary Report				
108	Conduct a deep dive country assessment to gauge the current state of regional market participation	Situation Assessment				
109	Develop a roadmap for targeted support for specific counterparts with clear milestones to facilitate the regional market design	Roadmap for Support Towards Regional Market Design				
110	Present roadmap and agreement to proposed support	2 - 3 Workshops				
111	Sub-Task 5.4: Develop regionally acceptable methodologies for cost allocation of new cross-border transmission lines					
112	Engage with ACE, RPTCC, and JUMPP to assess their current activities in the region	Meetings Summary Report				
113	Review of International Practices	Report				
114	Co-development of OASIS and ATC guidelines with ACE and RPTCC					
115	Two regional workshops on private financing of transmission with ACE and RPTCC/Regulators	Conduct workshops				
116	Sub-task 5.5: Support ASEAN members to assess the feasibility of and financing options for one of the highest priority interconnection projects identified in the AIMS study					
117	Engage with ACE/RPTCC/JUMPP to identify highest priority interconnections	Prioritized Interconnections				
118	Development of Concept note on approach to feasibility and finance options	Concept Note				
119	Agreement with participating countries	LOC				
120	Task 6: Assess and Optimize Natural Gas System Performance					
121	Sub-Task 6.1: Support national ministries, regulatory agencies, and gas system operators to measure, monitor, and manage the use of natural gas to minimize methane emissions, venting, and flaring					
122	Engage with stakeholders to understand activities currently under way in the region and identify where SPP can provide complementary technical assistance	Situation and Gap assessments				
123	Sub-Task 6.2: Reduce methane and black carbon emissions from the natural gas value chain					
124	Develop an assessment of the sources and quantities of emissions to form the baseline for the development of an emissions reduction plan in Y2	Baseline Methane Emissions Report				
125	Convene a regional knowledge sharing workshop of the regional opportunities to mitigate methane in the oil and gas value chain	Regional Knowledge Sharing Workshop				
126	Sub-Task 6.3: Expand the understanding and use of natural gas as a flexible and complementary power source for variable RE generation					
127	Develop a strategic and associated training plan that will focus on expanding the understanding of natural gas' role in addressing VRE	Strategic and Training Plan Report				
128	Sub-Task 6.4: Improve civil society participation in planning and advocacy through assistance to regulatory agencies and integrated resources planning processes, as well as improved environmental permitting processes					
129	Assessment report of the role of advocacy groups, regulatory and environmental planning, and licensing/permitting and recommendations for target country and associated workstream	Assessment Report				

SECTION 3: ACTIVITY IMPLEMENTATION PLANS

The following pages reflect the proposed Year 1 activities under SPP's tasks. This includes the proposed sequencing, collaboration partners, work products, expected results, and potential risks. The following table includes a list of overarching assumptions, risks, and mitigation strategies for SPP.

PROGRAM ASSUMPTIONS, RISKS, AND MITIGATION STRATEGIES

Effective launch and operation of SPP assumes that several favorable conditions will underpin its success:

- Supportive and engaged partners
- Approved status as a USAID program in Thailand
- The ability to work, despite the ongoing COVID-19 pandemic
- Receptivity of Southeast Asian Governments and Regional Bodies
- A stable economic, political, and social environment

The table below details how SPP will monitor the validity of these assumptions, how they can yield risks, how SPP will mitigate these risks.

Key Assumption and Ensuing Risk	Monitoring and Mitigating Risk
<p>SPP will operate in a crowded donor environment that includes USAID bilateral missions and their programs; other USAID offices and their programs; other USG initiatives; and the work of external donors, including philanthropic foundations. If partnerships and protocols are not properly managed, this can potentially create:</p> <ul style="list-style-type: none"> ● Resistance of the bilateral missions to SPP's engagement with counterparts and stakeholders in their countries. ● Confusion among counterparts and stakeholders about the work of SPP vs. the work of others ● Overlapping, unnecessary and contradictory work 	<p>SPP will follow a set of proven principles to ensure proper coordination within USAID, the broader USG, and external donors:</p> <ul style="list-style-type: none"> ● Respect and enhance existing communications protocols ● Maintain a web of close relationships that reinforce informal connections ● Solicit advice for program design that can ensure early confluence of SPP's activities within the existing webs of donor support ● Amplify and augment successes of others to cultivate their goodwill ● Follow-through on commitments <p>SPP anticipates that its close collaborative working style will alert it to potential lapses in partner interest.</p>

<p>With an operating base in Thailand, SPP requires approval as an Official Development Assistance (ODA) program by the Thailand International Cooperation Agency (TICA). Delays in securing this status can hinder the program's start-up (e.g., causing difficulties with securing visas for resident advisors).</p>	<p>SPP will follow the guidance of RDMA's program office on the established process for engaging TICA. An initial and critical decision is the selection of a Thai government counterpart to serve as SPP's sponsor to TICA. SPP envisions building on the recent successes of other RDMA programs that have engaged universities as their sponsors.</p> <p>By assigning its senior Thai professional to oversee this national process, SPP anticipates early warning of potential snags in TICA approval.</p>
<p>COVID-19 can continue to hinder program activities throughout the year – potentially delaying the deployment of Bangkok-based team members.</p>	<p>Two years into the COVID-19 pandemic, the SPP team will benefit from considerable experience in using collaboration tools such as virtual meeting platforms (e.g., Zoom) and real-time co-authoring software.</p> <p>While the nature of the COVID-19 pandemic has proven unpredictable, SPP's experience positions it for rapid and effective response.</p>
<p>SPP has designed its strategy and approach around partnering with various elements of ASEAN. There is the fundamental risk that one or more partnerships with ASEAN entities (e.g., ACE or HAPUA) might not come to fruition.</p>	<p>For ASEAN, SPP will:</p> <ul style="list-style-type: none"> ● Leverage the existing relationships and understandings that are in place within USAID and the broader USG ● Tap existing senior-level energy-sector professionals who already work in Jakarta with a Deloitte member firm to help cultivate the relationships ● Consider placing staff on-site within ASEAN or nearby, to reinforce the value proposition for the various ASEAN elements. <p>These consultative methods should provide timely intelligence on the validity of this assumption and the team's progress with partnership formation.</p>
<p>SPP anticipates forming partnerships with other regional institutions (e.g., RPTCC) and tapping other delivery channels (e.g., the Hub's Power Sector Learning Series). There is the fundamental risk that one or more of these partnerships might not come to fruition.</p>	<p>SPP will employ a stakeholder-focused engagement strategy that relies on both formal and informal means of communication and negotiation. This is already underway, with the assistance of USAID RDMA itself. SPP is ready to adjust its delivery approach if it does encounter key obstacles with an individual entity.</p> <p>These consultative methods should provide timely intelligence on the validity of this assumption and the team's progress with partnership formation.</p>

<p>The ultimate success of SPP's efforts hinge on the willingness of the Governments within its Southeast Asian nations to undertake and support the various activities and to harmonize their laws, regulations, policies, and programs accordingly. This is a generic risk to any USAID technical assistance activity.</p>	<p>By engaging through ASEAN, which has official and sanctioned senior-level status within all the Southeast Asian nations, SPP begins with an appropriate status as an accepted source of support. SPP will seek to build on this advantageous placement by continuing a smooth process of stakeholder engagement and remaining flexible and fluid to respond to priorities of the Governments.</p> <p>These consultative methods should provide timely intelligence on the validity of this assumption and the team's progress with partnership formation.</p>
<p>SPP anticipates considerable engagement with the private sector – particularly with global firms that provide major foreign direct investment (FDI) within Southeast Asia. Program success hinges greatly on the regional profiles of economic, political, and social risks. Again, this is somewhat a generic risk to any USAID technical assistance activity that relied on private sector engagement.</p>	<p>Despite the global disruptions that COVID-19 caused, in September 2021 the ASEAN Investment Report characterized the current investment climate in Southeast Asia as follows: "Despite the decline, ASEAN remained an attractive investment destination; the region's share of global FDI rose from 11.9 per cent in 2019 to 13.7 percent. FDI inflows remained more than twice the amount seen during the 2007–2008 global financial crisis and nearly five times more than the annual average during the 2002–2004 outbreak of SARS (severe acute respiratory syndrome)."</p> <p>SPP will continue to monitor high-level assessments of the operating environments across Southeast Asia, to alert it of potential emerging risks.</p>

Sub-Task 1.1	<p>Prepare utility assessments, strategies, and analyses of capacity needs</p> <p>a. Criteria from which to survey SEA utilities</p> <ul style="list-style-type: none"> In consultation with HAPUA/ACE and the USAID Bilateral programs, develop a set of assessment criteria to assess SEA Utilities and to prioritize the development of USPs <p>b. Conduct Assessments</p> <ul style="list-style-type: none"> These assessments shall be conducted through a combination of desktop reviews and interviews with the utility staff, other relevant donor programs, HAPUA/ACE WGs, DFIs and the like. SPP will conduct an assessment on two utilities in Year 1 and these assessments will form the bases for the detailed USPs to follow in subsequent years.
Lead Counterpart	USAID Bilateral Programs, SEA Utilities
Other Counterparts	HAPUA, ACE WGs, Donors, other USG Programs
Expected Timeline for Sub-Task	<p>May 2022 (tentative): Develop criteria for assessments</p> <p>June 2022: Finalize the assessment criteria</p> <p>July 2022: Conduct assessment with selected utilities</p> <p>August 2022: Conclude assessments</p> <p>September 2022: Complete the development of frameworks for USPs</p>
Key Work Products for Sub-Task 1.1	<ul style="list-style-type: none"> Brief report with recommended improvement criteria for SEA utilities Brief assessment report (~25 pages per utility) for two utilities
Anticipated Results for Sub-task	<ul style="list-style-type: none"> Framework developed for utility assessment that will further be for drafting detailed USPs for selected utilities Identified SPP implementation support for USPs for selected utilities

Sub-task 1.2	<p>Identify complementary power utility regional partnerships to augment ongoing efforts and expand tailored assistance to under-resourced technical areas and or individual utilities</p> <p>a. Identify current and potential partnership opportunities</p> <ul style="list-style-type: none"> ● Working with HAPUA and SEA utilities, identify the current and potential partnership opportunities across a broad spectrum of operation areas <p>b. Conduct consultations with U.S. based entities</p> <ul style="list-style-type: none"> ● Upon identification of potential partnership opportunities, dialogue with agencies such as EPRNI/NARUC/G-PST/more advanced utilities to solicit their participation in such partnership <p>c. Develop a framework for partnership to guide the partnership discussions</p> <p>d. Initiate one partnership dialogue in Year 1 among a willing recipient utility and a supporting partner form among either another SEA utility or a U.S. based entity</p>
Lead Counterpart	HAPUA/ACE WGs, USAID Bilateral Programs, SEA Utilities
Other Counterparts	EPRI, NARUC, G-PST, U.S. Utilities, Donors, other USG programs
Expected Timeline for Sub-Task	<p>May 2022: Identification of current and potential partnership opportunities</p> <p>June 2022: Launch consultation process with U.S. based entities</p> <p>July 2022: Identify potential partnerships</p> <p>August 2022: Complete the development of framework for partnerships</p> <p>September 2022: Initiate partnership dialogue</p>
Key Work Products for Sub-task 1.2	<ul style="list-style-type: none"> ● Partnership framework report (~25 pages)
Anticipated Results for Sub-task	<ul style="list-style-type: none"> ● Framework developed for SEA Utility Partnerships ● Identified opportunities for enhanced bilateral/trilateral partnerships ● Identified SPP implementation support for partnerships

Sub-Task 1.3	<p>Design and facilitate needs-based training for all levels of utility staff associated with the focus areas of the partnership working groups</p> <p>a. Identify broad regional topics for training</p> <ul style="list-style-type: none"> Working with HAPUA/ ACE WGs, identify the broad training themes and arrive at a training calendar including identifying trainers from within the region. Also draw a plan for “train the trainers” to create a regional pool of experts. <p>b. Conduct regional technical training</p> <ul style="list-style-type: none"> Based on the identified topics in consultation with HAPUA/ACE WGs, at least 2 training programs will be conducted one on a technical topic and one on utility commercial topic in Year 1. <p>c. Gender mainstreaming</p> <ul style="list-style-type: none"> Working together with the USAID E4SEA program and with other USAID Bilateral Energy programs in the region, enhance participation for women in the training programs and identify opportunities for women’s employment and hence SPP will assess, identify, and prioritize entry points for women’s increased engagement and appropriate skill development in the power sector with a regional focus. This assessment will be concluded in Year 1, followed by the actual skill development in subsequent years
Lead Counterpart	HAPUA/ACE WGs, USAID Bilateral Programs, SEA Utilities
Other Counterparts	Donors, other USG programs, selected local universities
Expected Timeline for Sub-Task	<p>May 2022: Finalize specific training topic and schedule with at least one SEA Utility</p> <p>June 2022 (tentative): Identification of topics for training for the duration of the program</p> <p>July 2022: Conduct SEA Utility Training; Identify women’s employment opportunities and skill development needs</p> <p>August 2022: Conduct Regional Utility Training on a Commercial Topic. Conclude plan for “Train the Trainers”</p> <p>September 2022: Conduct Regional Utility Training on a Technical Topic; Identify local universities and curriculum to support skill development for women in energy sector</p>
Key Work Products for Sub-Task 1.3	<ul style="list-style-type: none"> Curriculum design report for two training sessions in Year 1 Brief summaries of the two training sessions Assessment report: Powering and Empowering Women in Southeast Asia
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> Enhanced capacity within utilities Increased focus on gender mainstreaming in utilities Development of local pool of trainers

Sub-Task 1.4	<p>In collaboration with private sector partners, design, and coordinate implementation of pilot projects to demonstrate a business and analytical bases for how adoption of improved operational practices and/or technological upgrades can result in sustained operational performance of member utilities</p> <p>a. Develop a list for modernization</p> <ul style="list-style-type: none"> ● Based on assessments in Sub-Task 1.1, SPP will identify at list of potential interventions (technologies and business models) leading to the modernization of the utilities <p>b. Identification of potential opportunities for pilot projects</p> <ul style="list-style-type: none"> ● SPP will continue to dialog with SEA Utilities and other stakeholders to explore potential opportunities bilaterally and prepare to launch a call for proposals to cover a broader spectrum of interested parties including private sector participants for such utility modernization approaches, as identified above. <p>c. Select Criteria for Pilot Projects</p> <ul style="list-style-type: none"> ● SPP will develop a set of selection criteria for the pilot project(s) as part of the preparation for the call for proposals.
Lead Counterpart	HAPUA/ACE WGs, USAID Bilateral Programs, SEA Utilities
Other Counterparts	Donors, other USG programs, private sector companies
Expected Timeline for Sub-Task	<p>June 2022: Finalize the list of modernization interventions and initiate discussions with SEA utilities</p> <p>July 2022 (tentative): Launch call for proposals.</p> <p>August 2022: Evaluate and shortlist up to 3 pilot projects</p> <p>September 2022: Conclude selection of at least one pilot to move to execution</p>
Key Work Products for Sub-Task 1.4	<ul style="list-style-type: none"> ● Brief assessment report that outlines priorities for operational improvements and utility modernization technologies and business models ● Preliminary design report for a Call for Proposals
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> ● Utilities better prepared for modernization ● Proof of concept of modern technology in real utility environment

Sub-task 2.1	Strengthen ministries' capacity for EE, standards, and labeling (S&L) <ol style="list-style-type: none"> Meet with ACE, CLASP, and LBNL to assess SE Asian countries' current capacity around EE Standards and Labeling Develop country working papers, as needed Identify countries to be "twinned" and begin formalizing those relationships Work with ACE and other regional organizations on S&L workshops, opportunistically
Lead Counterpart	National Energy Ministries, Standards agencies, ACE
Other Counterparts	LBNL, CLASP, USAID bilateral programs, DoS, IEA
Expected Timeline for Sub-Task	<p>April – May 2022: Meet with ACE, CLASP, LBNL to assess current country baselines and develop summary memo on current S&L status</p> <p>June – July 2022: Develop working papers on specific countries, as needed</p> <p>August 2022: Propose country twinning relationships, draft Memoranda of Understanding, and obtain approval for drafts</p>
Key Work Products for Sub-task 2.1	<ul style="list-style-type: none"> Brief report that summarizes S&L status across the region Working papers on at least three countries Draft Letters of Collaboration for two S&L partnerships
Anticipated Results for Sub-task	<ul style="list-style-type: none"> Insights for targeting both regional and country-level sub-tasks in subsequent years, some of which will be funded through GUCs

Sub-task 2.2	<p>Coordinate regionally to strengthen utilities' capacity for demand-side management (DSM)</p> <p>a. Working with HAPUA, assess utility DSM capacity, catalogue existing programs, and identify potential target utilities for DSM program support and training</p> <p>b. Confirm utility interest and agree on initial activities for year 2</p> <p>c. Assess utility planning unit capacity and develop assessment memo; identify target utilities</p>
Lead Counterpart	HAPUA
Other Counterparts	Electric utilities, USAID bilateral programs
Expected Timeline for Sub-Task	<p>July 2022: DSM assessment memo completed</p> <p>September 2022: Draft Memoranda of Understanding shared with target utilities for Year 2; Planning unit assessment completed, and target utilities identified</p>
Key Work Products for Sub-task 2.2	<ul style="list-style-type: none"> ● Action Plan for enhancing utility capacity DSM ● Action Plan for enhancing utility capacity for load control
Anticipated Results for Sub-task	<ul style="list-style-type: none"> ● Utility/ies identified for targeted effort on DSM during Year 2 ● Utilities identified for targeted effort on planning during Year 2 ● Overall summary of utility DSM and EE capabilities, with list of utilities that may be able to mentor others

Sub-task 2.3	Support bulk procurement of key EE technologies a. Analyze success factors for bulk procurement programs and develop memo b. Organize roundtable to discuss bulk procurement
Lead Counterpart	ACE, APEIA
Other Counterparts	Bilateral USAID programs
Expected Timeline for Sub-Task	May 2022: Draft agenda developed September 2022: Conference held
Key Work Products for Sub-task 2.3	<ul style="list-style-type: none"> ● Assessment memorandum ● Brief report of the roundtable and next steps
Anticipated Results for Sub-task	<ul style="list-style-type: none"> ● Countries and equipment for prioritization in years 2-5 identified ● Better understanding of bulk procurement feasibility and issues gained

Sub-task 2.4	<p>Support regional coordination for advancing minimum energy performance standards (MEPS) and regional harmonization</p> <p>a. Collect data on existing MEPS in the region</p> <ul style="list-style-type: none"> ● SPP will work with ACE, ASEAN SHINE and CLASP to develop as comprehensive an assessment as possible, building on the work done under sub-task 2.1. We anticipate that there will be entire equipment classes for which no or only limited MEPS may exist; SPP will highlight those, particularly if they have high energy savings potential. <p>b. Assess the region's testing centers</p> <ul style="list-style-type: none"> ● SPP will determine whether most countries test equipment nationally or at a regional center, and the capacity of these various centers.
Lead Counterpart	ACE, national standards agencies, testing labs
Other Counterparts	LBNL, CLASP, other USAID programs
Expected Timeline for Sub-Task	<p>June 2022: Stakeholder engagement memo</p> <p>August 2022: Roadmap for advancing MEPS in the region</p> <p>August 2022: Testing center recommendation memo</p>
Work Products for Sub-task 2.4	<ul style="list-style-type: none"> ● Brief report on stakeholder engagement ● Roadmap for advancing MEPS in the region, with emphasis on testing centers
Anticipated Results for Sub-task	<ul style="list-style-type: none"> ● More MEPS in place, both in more countries and for more equipment ● Increased harmonization of MEPS, particularly for high priority equipment such as cooling systems

Sub-Task 3.1	Identify and support regional trends and opportunities for emerging solutions <ol style="list-style-type: none"> a. Review existing regional and country level reports which detail the current state and relevant programs for AES in ASEAN Member States (AMS) b. Conduct additional assessments to fill in information gaps, as needed to create or update an assessment for all AMS. c. Collect additional primary research through targeted roundtable workshops with private sector consumers and investors, public sector power market stakeholders, technology solutions and service providers, utilities, and financial institutions including climate finance capital.
Lead Counterpart	<ul style="list-style-type: none"> ● USAID Bilateral Programs ● ASEAN Center for Energy ● Advanced Energy Partnership for Asia
Other Counterparts	<ul style="list-style-type: none"> ● Utilities ● CCEA ● Relevant private sector
Expected Timeline for Sub-Task	<p>June 2022: Initial evaluation of country-specific reports detailing current state and relevant programs for AES in AMS as well as gap analysis</p> <p>June 2022: Identification of current and potential partnerships, platforms, and initiatives which align with sub-task</p> <p>August 2022: Round Table with Stakeholders</p> <p>August 2022: Development and delivery of AES Regional Landscape Assessment</p>
Key Work Products for Sub-Task 3.1	<ul style="list-style-type: none"> ● Interim AES regional landscape assessment report
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> ● Landscape Assessment report identifies regional needs, gaps, opportunities, and challenges ● Workshops which build engagement, regional capacity, and provides Technical assistance ● Potential projects are identified for future support

Sub-Task 3.2	<p>Analyze major sources of air pollution and develop country specific management plans in coordination with USAID Missions</p> <p>a. Identify data gaps, emerging methodologies, and roadmap for enhanced data quality</p> <ul style="list-style-type: none"> ● Based on the existing data sources available, SPP will identify major gaps and provide an analysis and roadmap for enhanced data quality. <p>b. Support to Countries on Air Quality Management</p> <ul style="list-style-type: none"> ● In consultation with USAID Bilateral missions, SPP will identify up to 2 countries in Year 1 that shall receive the program's support in developing Air Quality Management Plans in Year 2.
Lead Counterpart	ADPC, Regulators and other Relevant Government agencies in respective countries, USAID Bilateral missions, ACE, NREL
Other Counterparts	Industry associations, Donors, other USG programs, Utilities
Expected Timeline for Sub-Task	<p>April 2022 (tentative): Identification of existing data sources</p> <p>May 2022: Launch consultation process to conduct gap analysis on data quality</p> <p>May 2022: Conduct consultation with USAID Bilateral missions to select the countries</p> <p>July 2022: Shortlist countries that would receive SPP support</p> <p>August 2022: Commence dialog with shortlisted countries</p> <p>September 2022: Complete the data gap analysis report; Finalize the two countries to receive SPP support for developing Air Quality Management Plan in Year 2</p>
Key Work Products for Sub-Task 3.2	<ul style="list-style-type: none"> ● White paper (30-40 pages) on adequacy of existing data sources and roadmap for enhanced data quality
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> ● Key data sources of air pollution identified ● Existing gaps in data, technology, policy, and incentives identified ● Roadmap for enhancing data quality identified ● Long term air quality management plans formulated, and support provided for implementation

Sub-Task 3.3	<p>Where the generation, transmission and/or use of energy is a significant source of air pollution, support developing a regional strategy focused on energy policy and investment to mitigate air pollution</p> <ol style="list-style-type: none"> a. Identify current impact and roadmap for air quality improvement <ul style="list-style-type: none"> ● Working with existing data sources, as in sub-Task 3.2 above, SPP will identify key power sector activities contributing to air quality b. Roadmap for deployment, including identification of barriers, feasibility, and financing requirements <ul style="list-style-type: none"> ● SPP will potential technologies a roadmap categorizing them into short-term, mid-term and long-term solutions that will be then prioritized for deep dive analysis covering the scope as above in the subsequent years c. Analyze the policy landscape <ul style="list-style-type: none"> ● SPP shall perform an analysis of the policy landscape that impacts the air quality in the power sector
Lead Counterpart	ADPC, HAPUA/ACE WGs, USAID Bilateral Programs, SEA Utilities, Regulators, Other Energy sector players
Other Counterparts	Technology and solution providers, Donors, other USG programs
Expected Timeline for Sub-Task	<p>May 2022 (tentative): Identification of power sector contributors to air pollution</p> <p>June 2022: Launch consultation process with SEA utilities</p> <p>July 2022: Conclude consultation workshops with selected SEA utility and arrive at the prioritization list of technologies</p> <p>September 2022: Conclude analysis of policy landscape</p>
Key Work Products for Sub-Task 3.3	<ul style="list-style-type: none"> ● A report (45-50 pages) on current impact of the power sector on air quality and a roadmap for air quality improvement ● A report (25-30 pages) on policy landscape impacting air quality in the power sector
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> ● Active role of energy sector in air quality improvement ● Roadmap for accelerated deployment of technologies for air quality improvement, driving clean energy ● Agreed upon SPP implementation support for implementation of the roadmap

Sub-Task 3.4	<p>Support national or multi-country corporate procurement aggregation</p> <p>Create internal CCEA working groups (WG) to focus on relevant aspects of RE access including.</p> <ul style="list-style-type: none"> • Development of regional Procurement Playbook for release throughout region • Design and development of appropriate strategies and coordination with various external partnerships (e.g., equipment and service providers, investors, among others), organizations (e.g., NGO's, IDO's, Chambers of Commerce, among others), and relevant USG agencies.
Lead Counterpart	<ul style="list-style-type: none"> • USAID Bilateral Programs • CCEA • USG including DoS and USTDA • ASEAN Center for Energy
Other Counterparts	<ul style="list-style-type: none"> • Relevant private sector Parties • Donors • Chambers of Commerce
Expected Timeline for Sub-Task	<p>July 2022: Establishment of CCEA Working Groups</p> <p>August 2022: CCEA Clean Energy Procurement Strategies</p> <p>August 2022: CCEA Training on Regional corporate procurement leading practices</p> <p>August 2022: Draft Regional Corporate Procurement Playbook</p>
Key Work Products for Sub-Task 3.4	<ul style="list-style-type: none"> • CCEA Clean Energy Corporate Procurement Playbook • Report on CCEA regional and country level clean energy procurement strategies • Summary reports on at least one CCEA training session on regional corporate procurement leading practices
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> • Procurement playbooks enables capacity building and technical assistance • Capacity is built for corporate procurement • Projects are identified for future support

Sub-Task 3.5	<p>Provide technical assistance to utilities or operators for wheeling or interconnection guidelines for DPPA</p> <ol style="list-style-type: none"> a. Conduct a review process to develop current understanding for wheeling and interconnection guidelines b. Coordinate with Task 1 and 5 to organize existing and potentially new technical and policy guidance which enables wheeling and interconnection for DPPA's by geographically dispersed corporate power consumers as well as supports cross border power trading, improves grid resiliency, and identifies potential electricity delivery and management technology implementation opportunities c. Develop a roster of country level, regional, and international experts, through the CCP and coordinated with relevant partners to provide Technical Assistance which supports partner activities that promotes wheeling and interconnection to regional utilities, regulators, and other power market stakeholders.
Lead Counterpart	<ul style="list-style-type: none"> ● HAPUA ● ACE ● Regional utilities
Other Counterparts	<ul style="list-style-type: none"> ● USAID bilateral missions ● DOS ● Private Sector IPPs, GENCO's, investors
Expected Timeline for Sub-Task	<p>June 2022: Identify partnerships and align with Task 5</p> <p>July 2022: Identify other regulatory and policy efforts with regional partners such as HAPUA and ACE</p> <p>August 2022: Conduct fact finding and review process which scopes status for wheeling and interconnection guidelines</p>
Key Work Products for Sub-Task 3.5	<ul style="list-style-type: none"> ● Regional Wheeling and Interconnection Status Report
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> ● Identify and report on regional harmonization and interconnection needs, gaps, opportunities, and challenges ● Implement task force trainings on leading practices to build capacity and provide technical assistance ● Using the task force and prior gap analysis, design and share appropriate for wheeling and/or interconnection guidelines, leading practices, technologies ● Use the task force to create and disseminate results from task force assessments and finding through partnership and center of excellence

Sub-Task 3.6	Design and administer support for early-stage energy management startups <ol style="list-style-type: none"> a. Conduct reviews of existing support mechanisms b. Collect primary data through stakeholder roundtable discussions to define startup needs to identify potential solutions c. Identify gaps between needs and support, determine how SPP can bridge such gaps and enable the development of a concept note for an SPP early-stage energy management startup support mechanism which compliments and extends the reach of existing programs
Lead Counterpart	<ul style="list-style-type: none"> ● USAID RDMA ● Existing support mechanisms (e.g., PFAN, New Energy Nexus)
Other Counterparts	<ul style="list-style-type: none"> ● USAID bilateral missions ● DFC, USTDA, EXIM, among others
Expected Timeline for Sub-Task	<p>July 2022: Conduct reviews of existing support mechanisms</p> <p>August 2022: Collect primary data and identify gaps through stakeholder needs roundtable</p> <p>August 2022: Develop Concept note in collaboration with RDMA</p>
Key Work Products for Sub-Task 3.6	<ul style="list-style-type: none"> ● Brief report that presents a needs assessment and proposed solutions to design and administer support for early-stage energy management start-ups
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> ● Identification of needs, opportunities, and challenges for innovative energy startups ● Develop program to fill gaps and build capacity with startups. Can include funding, trainings, grants, and technical assistance programs ● Develop and share replicable energy related funding frameworks through knowledge sharing trainings for leading practices, processes, business models, ● Use knowledge platforms and centers of excellence to continue supporting startups and new technology providers

Sub-Task 4.1	Establish the CCP <ul style="list-style-type: none"> a. CCP structure and management <ul style="list-style-type: none"> ● SPP will analyze the various options for structuring and managing the CCP, such as identifying potential hosts, infrastructure, compliance and regulatory matters, costs, etc. b. Content Identification and Development <ul style="list-style-type: none"> ● In consultation with SEA Utilities, governments, ESCOs (related to Sub-Task #2.3, under Task 2), SPP will identify a list of technologies and services, the procurement of which could be supported through the CCP (including RE procurement). This will further lead to work on Sub-Task 4.2 to work with USG entities and the private sector to develop technical standards and recommendations in Y2.
Lead Counterpart	SEA Utilities, Government regulators, ESCOs
Other Counterparts	Technology and service providers, donors, universities, other USG programs
Expected Timeline for Sub-Task	<p>May 2022 (tentative): Identification of options for CCP and presentation to USAID on pros and cons; Launch consultation for content identification</p> <p>August 2022: Conclude initial list of technologies/ services to be procured through CCP</p> <p>September 2022: Conclude structure discussions and outline next steps for development tries</p>
Key Work Products for Sub-Task 4.1	<ul style="list-style-type: none"> ● A report (45-50 pages) on the structure, management of the CCP and a draft implementation plan ● Brief report that recommends the technologies/service for competitive procurement to be supported through CCP and assessment of standards
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> ● Enhanced transparency for procurement ● Increased knowledge and capacity in the region to support competitive procurement of AES

Sub-Task 4.2	<p>Work with other USG entities and the private sector, to develop technical standards and recommendations across a suite of technologies</p> <p>a. Identification of applicable standards</p> <ul style="list-style-type: none"> ● SPP will analyze the current standards applicable in the region of AES technologies. <p>b. Gap analysis and recommendations</p> <ul style="list-style-type: none"> ● SPP will work with USG entities such as NREL and the Department of Commerce's Renewable Energy and Energy Efficiency Advisory Committee (REEEAC) to identify gaps in the standards and recommendations to further development. SPP will leverage the improved standard setting processes and policies developed in Sub-Task 2.1 for EE standards and labeling to create dialogue on recommended technical standards for select AES technologies. This gap analysis report (25-30 pages) will identify the status quo and the roadmap to upgrade the standards in the coming years
Lead Counterpart	SEA Utilities, Government regulators, ESCOs, USG entities like NREL/REEEAC
Other Counterparts	Technology and service providers, Donors, other USG programs
Expected Timeline for Sub-Task	<p>June 2022 (tentative): Identification of all technical standards in the region</p> <p>July 2022: Identify gaps</p> <p>September 2022: Conclude gap analysis and recommendations</p>
Key Work Products for Sub-Task 4.2	<ul style="list-style-type: none"> ● Report (25-30 pages) on gap analysis of existing standards in the region and recommendations for select AES technologies to set standards
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> ● Enhanced standards for AES technologies ● Increased knowledge and capacity in the region to support competitive procurement of AES

Sub-Task 4.3	<p>Support regulators and utilities in the design of competitive tender processes, IT Platform, key document templates, and review criteria</p> <p>a. Analysis of existing standards in the region, based on the analysis as in Sub-Task 4.1 above, SPP will identify the gaps and work to provide recommendations</p> <p>b. SPP will outline the key functionalities and content needs for a digital award environment to run such competitive procurement processes</p>
Lead Counterpart	<p>ACE/HAPUA, SEA Utilities/regulators, NREL, NARUC and other similar</p>
Other Counterparts	<p>Technology and solution providers, Donors, other USG programs</p>
Expected Timeline for Sub-Task	<p>June 2022: Identify gaps in existing process</p> <p>July 2022: Dialog with NREL/NARUC and others</p> <p>September 2022: Report on recommendations for adjusting tender processes; Report on establishing a Digital Award Environment</p>
Key Work Products for Sub-Task 4.3	<ul style="list-style-type: none"> ● Report (~50 pages) with initial recommendations for adjusting tender processes ● Report (25-30 pages) on establishing a Digital Award Environment
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> ● Improved facility of running competitive procurement processes, such as a digital platform ● Enhanced clarity and transparency of the process

Sub-Task 4.4	<p>Provide expert advice on financing and guarantee options for auction design, PPAs, and other key contracts</p> <ul style="list-style-type: none"> ● Assess current state of market to define needs and opportunities ● Identify partners and procuring entities in need of support
Lead Counterpart	<p>HAPUA, ACE</p>
Other Counterparts	<p>USAID bilateral missions, DFC, USTDA, EXIM, IFC, ADB, among other lenders and investors</p>
Expected Timeline for Sub-Task	<p>July 2022: Identify partners and areas of opportunity to extend support that fills regional procurement gaps August 2022: Conduct regional assessment conducted in collaboration with relevant partners</p>
Work Products for Sub-Task 4.4	<ul style="list-style-type: none"> ● Rapid procurement program assessment report
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> ● Needs, gaps, opportunities and challenges identified ● Capacity building and Technical assistance provided ● Energy related frameworks, practices, processes, business models, technologies created, introduced, shared, promoted ● Knowledge platform/portal/partnership, center of excellence created/supported/strengthened

Sub-Task 4.5	<p>Organize workshops and trainings to build capacity of interested parties in designing auction processes</p> <p>a. Identify training needs amongst SEA Utilities</p> <ul style="list-style-type: none"> ● SPP will work closely with HAPUA/ACEWGs and SEA Utilities directly in identifying the needs and designing these training programs, some of which may be related to upcoming procurement as identified in Sub-Task 4.3 above. <p>b. Conduct training workshops</p> <ul style="list-style-type: none"> ● Using both in-person (to the extent possible) and virtual workshops, SPP will conduct one regional training in Year 1 focused on competitive procurement best practices for utilities (topics to be decided). In coordination with Sub-Task 3.5, RE Auctions will also be included as part of the training under that sub-task.
Lead Counterpart	HAPUA/ACE WGs, USAID Bilateral Programs, SEA Utilities, Regulators, Other Energy sector players, NREL
Other Counterparts	Technology and solution providers, Donors, other USG programs
Expected Timeline for Sub-Task	<p>May 2022: Identify Training Needs</p> <p>July 2022: Identify Trainers</p> <p>September 2022: Conduct Regional Training for Utilities</p>
Work Products for Sub-Task 4.5	<ul style="list-style-type: none"> ● Report on a training session for utilities/government entities on auction processes for competitive procurement ● Report on a technical training session for aggregated procurement of RE
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> ● Regional capacity to train further on AES procurement ● Enhanced understanding of AES procurement ● Enhanced understanding of Auctions

Sub-Task 4.6	<p>Provide on-demand technical assistance to support partner countries to implement competitive procurement practices</p> <p>a. Working with HAPUA/ACE and the SEA Utilities, SPP will identify the potential areas of on-demand technical assistance that may be anticipated during the program.</p> <p>b. SPP envisages to host the process for requisitioning of support services through the CCP and will work with the USAID Bilateral programs and other donor programs to disseminate the availability of such technical assistance</p>
Lead Counterpart	<p>HAPUA/ACE WGs, USAID Bilateral Programs, SEA Utilities, Regulators</p>
Other Counterparts	<p>Technology and solution providers, Donors, other USG programs</p>
Expected Timeline for Sub-Task	<p>August 2022: SPP procurement on-demand technical services identified</p> <p>September 2022: Initiate discussions with USAID Bilateral programs and other donor programs</p>
Key Work Products for Sub-task 5.1	<ul style="list-style-type: none"> ● Report on potential services and offerings of CCP
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> ● Improved procurement processes ● Enhanced understanding of AES procurement

Sub-Task 5.1	<p>Work with two or more countries to design, pilot, monitor, and track the outcomes of electricity trade coordination activity</p> <p>a. Engage with counterpart country utilities, introduce the assistance, obtain buy-in and agreement to collaborate</p> <ul style="list-style-type: none"> ● Conduct a screening assessment to identify the interconnections with spare capacity to facilitate trade and availability of RE resources. Identify potential participating countries through coordination with RPTCC and utilities. <p>b. Conduct workshops to present the trade mechanism and seek input</p>
Lead Counterpart	ACE, RPTCC, HAPUA
Other Counterparts	JUMPP, Bilateral Missions, Ministries, Regulators
Expected Timeline for Sub-Task	<p>April 2022: Launch consultation process with counterparts</p> <p>July 2022: Screening assessment completed</p> <p>September 2022: Conduct consultation workshops with counterparts to obtain buy-in for moving forward</p>
Key Work Products for Sub-task 5.1	<ul style="list-style-type: none"> ● Stakeholder consultations report (e.g., covering ACE, HAPUA, and RPTCC) ● Screening assessment report that identifies target countries
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> ● Counterpart countries identified and initial agreement obtained to cooperate on regional electricity trade

Sub-task 5.2	<p>Implement system flexibility solutions resulting from the regional grid integration study (AIMS), and support a stakeholder-driven process to identify high-priority interconnection project opportunities</p> <ol style="list-style-type: none"> a. Coordinate with counterpart stakeholders to present the activity obtain their support b. Review the most recent AIMS III plan to identify and assess potential high-priority interconnections, and develop shortlist of interconnections to consider for support c. Review shortlist with stakeholders to agree on short-list prioritization
Lead Counterpart	ACE, RPTCC, HAPUA
Other Counterparts	JUMPP, Bi-Lateral Missions, Ministries
Expected Timeline for Sub-Task	<p>April 2022: Launch consultation process with ACE, RPTCC, HAPUA</p> <p>July 2022: Conduct interconnection assessments</p> <p>September 2022: Present interconnection report and short-list to stakeholders for discussion</p>
Key Work Products for Sub-task 5.2	<ul style="list-style-type: none"> • Letters of Collaboration with ACE, RPTCC and/or HAPUA • Interconnection assessment report that identifies high-priority interconnections
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> • Highest priority interconnection projects identified and presented to counterparts

Sub-task 5.3	<p>Support regional market design through development of legislative and regulatory frameworks, technical standards, grid codes, commercial rules, financial settlement terms, and mechanisms</p> <ul style="list-style-type: none"> a. Review and assess current market design proposals b. Meet with ACE, RPTCC, HAPUA, bilateral programs to learn about their work and obtain their perspective on market design issues c. Develop an implementation roadmap
Lead Counterpart	ACE, RPTCC, HAPUA
Other Counterparts	Bilateral programs
Expected Timeline for Sub-Task	<p>May/June 2022: Consultation process with ACE, RPTCC, HAPUA, bilateral programs, etc.</p> <p>June 2022: Market design assessment</p> <p>August 2022: Conduct workshops with ACE, RPTCC</p> <p>September 2022: Agree on plan of proposed support</p>
Key Work Products for Sub-task 5.3	<ul style="list-style-type: none"> ● Summary report of stakeholder consultations (e.g., with ACE and RPTCC) on state of market designs ● Situation assessment report on regional markets and a recommended roadmap for regional market design
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> ● Roadmap for targeted support developed

Sub-Task 5.4	<p>Develop regionally acceptable methodologies for cost allocation of new cross-border transmission lines</p> <ol style="list-style-type: none"> Develop a review of international and regional experience for cross border transmission lines Provide 2 regional workshops on cost allocation approaches and methodologies applicable to cross-border interconnections Engage with ACE and RPTCC to assess the viability and application of Open Access Same-Time Information System (OASIS) and the Available Transfer Capacity (ATC), to calculate available space on cross-border interconnects.
Lead Counterpart	ACE, RPTCC, HAPUA
Other Counterparts	JUMPP, USAID Bilateral Programs, SEA regulators
Expected Timeline for Sub-Task	<p>May 2022: Review and assessment of cost allocation approaches</p> <p>June 2022: Launch consultation process with RPTCC/ACE and HAPUA</p> <p>August 2022: Assessment of applicability of OASIS and ATC</p> <p>September 2022: Conduct 2 regional workshops</p>
Key Work Products for Sub-task 5.4	<ul style="list-style-type: none"> Summary report of meetings with ACE and RPTCC on cost allocation Report on leading international practices Summary report on two regional information sharing sessions on alternative cost allocation approaches
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> Regional counterparts provided with approaches to cross border transmission and improved methodologies for transmission access and availability to improve cost efficiency adopted by ACE and RPTCC

Sub-task 5.5	<p>Support ASEAN members to assess the feasibility of and financing options for one of the highest priority interconnection projects identified in the AIMS study</p> <ol style="list-style-type: none"> a. Engage with ACE, RPTCC and HAPUA to agree on the highest priority interconnector b. Engage with the ASEAN member countries ministries associated with the interconnection to promote SPP support and seek their agreement c. Present a concept plan which maps out the requirements for conducting a feasibility and financing assessment which would commence in year 2
Lead Counterpart	ASEAN Countries supporting the identified Interconnectors
Other Counterparts	ACE, RPTCC, HAPUA, bi-lateral missions
Coordination and Collaboration Strategy	<ul style="list-style-type: none"> • Where appropriate sign letters of collaboration identifying counterpart role and coordination plan • Coordination will be achieved via periodic meetings • Coordination will also be achieved via workshops to be conducted
Expected Timeline for Sub-Task	<p>May/June 2022: Launch consultation process with RPTCC/ACE/JUMPP</p> <p>July 2022: Interconnector assessment and prioritization and concept note, and plan developed</p> <p>September 2022: Agreement with ASEAN member countries for planned support</p>
Key Work Products for Sub-task 5.5	<ul style="list-style-type: none"> • Concept note that summarizes stakeholder consultations, identifies high priority interconnections, presents an approach to support feasibility and finance, and provides a framework Letter of Collaboration
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> • Foundation established to identify and support high-priority regional interconnection projects

Sub-task 6.1	<p>Support national ministries, regulatory agencies, and gas system operators to measure, monitor, and manage the use of natural gas to minimize methane emissions, venting, and flaring</p> <ol style="list-style-type: none"> a. Engage with GMI, CCAC, GMI, GGFR to assess current activities b. Conduct deep dive meetings ministries, regulators, and O&G for selected countries where gas resources occur c. Develop profiles of gas production and utilization in each country including policies and regulations and operating procedures impacting gas production and utilization resulting in a Situation assessment and Diagnostic and Gap assessment report which sets out specific improvements in the measuring, management, and monitoring processes
Lead Counterpart	Ministries, O&G companies, regulators
Other Counterparts	USAID RDMA and bi-lateral missions, Global Methane Initiative (GMI)
Expected Timeline for Sub-Task	<p>June 2022: Launch consultation process with counterparts</p> <p>August 2022: Develop profiles for each country; Conduct diagnostic and gap assessment</p>
Key Work Products for Sub-task 6.1	<ul style="list-style-type: none"> ● Report that provides a situation assessment and gap analysis
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> ● Assessment of actions needed to adopt or modify current monitoring, measurement and management processes and procedures

Sub-Task 6.2	<p>Reduce methane and CO2 emissions from the natural gas value chain</p> <p>a. Meet with counterparts such as CCAC, GMI, IEA and GGFR to assess current emission reduction activities and measurements and models currently being used. The purpose would be to estimate a baseline level of emissions from which reductions could be estimated.</p> <p>b. Assess initial target countries such as Thailand and Indonesia and identify sources and estimated levels of emissions such as production facilities and pipelines</p> <p>c. Evaluation and preparation of GIS model requirements to be used to identify priority areas which will be applied in Y2</p> <p>d. Conduct regional workshop that yields a corporate “call to action”</p>
Lead Counterpart	CCAC, APDC, GMI
Other Counterparts	ACE, NREL, IEA, GGFR, USAID RDMA and bi-lateral missions
Expected Timeline for Sub-Task	<p>June 2022: Launch consultation process with stakeholders</p> <p>July 2022: Preparation of manual and modeling evaluation</p> <p>August 2022: Conduct training</p> <p>September 2022: Emission plan developed</p>
Key Work Products for Sub-task 6.2	<ul style="list-style-type: none"> ● Report on baseline methane emissions ● Report on regional knowledge sharing workshop
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> ● Active role of energy sector methane emissions ● Desired outcome of workshop is a stated commitment by regional bodies and companies for continued joint efforts to mitigate methane in this sector.

Sub-Task 6.3	<p>Expand the understanding and use of natural gas as a flexible and complementary power source for variable RE generation</p> <p>a. Develop workshop material which addresses managing renewable energy integration in the energy system and the role natural gas generation can play and the emission impacts</p> <p>b. Conduct 4 workshops in Vietnam, Thailand, Indonesia, Philippines. Target audience: Ministries/environmental groups</p>
Lead Counterpart	ACE, USAID bilateral missions, Ministries
Other Counterparts	Donors, other USG programs
Expected Timeline for Sub-Task	<p>June 2022: Launch consultation process with counterparts to introduce the assistance</p> <p>July 2022: Conduct consultation workshops in selected countries</p> <p>August 2022: Develop strategic and associated training plan which will focus on expanding the understanding of natural gas's role in addressing VRE to be implemented over the life of the program.</p>
Key Work Products for Sub-Task 6.3	<ul style="list-style-type: none"> • Strategic training plan for utilization of gas-based generation
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> • Key country counterparts informed on the role of gas generation in RE integration

Sub-Task 6.4	<p>Improve civil society participation in planning and advocacy through assistance to regulatory agencies and integrated resources planning processes, as well as improved environmental permitting processes</p> <ol style="list-style-type: none"> a. Assessment of regulatory activities and role of advocacy groups in the process and conduct follow up meetings to review the findings and steps needed to implement needed actions b. Assessment of power planning activities by respective ministries and role of advocacy groups in the process and conduct follow up meetings to review the findings and steps needed to implement needed actions c. Assessment of power related environmental permitting activities by respective ministries and role of advocacy groups in the process and conduct follow up meetings to review the findings and steps needed to implement needed actions
Lead Counterpart	USAID bilateral mission, selected country regulator and environmental agency
Other Counterparts	Local advocacy groups
Expected Timeline for Sub-Task	<p>June 2022: Launch consultation process with USAID</p> <p>July 2022: Prepare assessment</p> <p>August 2022: Review with USAID to identify pilot country</p>
Key Work Products for sub-task 6.4	<ul style="list-style-type: none"> ● Assessment report of role of advocacy groups regulatory and environmental planning and licensing/permitting and recommendations for approach for the associated workstream
Anticipated Results for Sub-Task	<ul style="list-style-type: none"> ● SPP will develop a pilot workplan that encompasses a 12-to-18-month program to accomplish country specific goals, which will serve as a basis for rolling out to other countries.

SECTION 4: APPENDIX

Annex 1: Monitoring, Evaluation, and Learning Plan (*provided under separate cover*)

Annex 2: Environmental Mitigation and Monitoring Plan (*provided under separate cover*)