

# Preliminary Study for Development of Clean Energy Complex in Ninh Thuan Province, Vietnam

## Terms of Reference

The Ninh Thuan Province Clean Energy Complex project is a strategic initiative to advance Vietnam's net-zero emissions goal by 2050, focusing on de-risking investments in renewable energy infrastructure. This project will support the development of 5.29 GW of clean energy capacity, including 3,500 MWp of solar PV, 1,440 MW of pumped storage hydropower, and 350 MW of battery storage systems.

The scope of this project includes conducting an initial preliminary Environmental and Social Impact Assessment, preparing Preliminary Engineering Specifications, and drafting an Initial Investment Report for the Lam Son Clean Energy Complex. These deliverables will provide essential insights for later feasibility studies and investment planning, forming a practical foundation for advancing the project. In the long term, this work will enable Vietnam to integrate more Variable Renewable Energy into its grid, reduce dependence on fossil fuels, and attract substantial clean energy investments. While the project focuses on this preparatory phase, its outcomes will play a critical role in supporting resilient and sustainable energy development in alignment with national climate goals.



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## I. Introduction

1. The Southeast Asia Energy Transition Partnership (ETP) brings together governments and philanthropies to work with partner countries in the region. ETP supports the transition towards modern energy systems that can simultaneously ensure economic growth, energy security, and environmental sustainability. To contribute to the achievement of the UN's Sustainable Development Goals (SDGs) and the Paris Agreement objectives, ETP works in Southeast Asia, with a focus on three priority countries, namely Indonesia, the Philippines, and Vietnam.
2. ETP's strategy is built around four inter-related pillars of strategic engagement that are squarely aligned to address the barriers to energy transition. These are (i) policy alignment with climate commitments, (ii) de-risking energy efficiency and renewable energy investments, (iii) extending smart grids, and (iv) expanding knowledge and awareness building.

## II. Summary

3. At the COP26 summit, the Government of Vietnam committed to achieving net-zero carbon emissions by 2050. In alignment with this goal, the government issued the Power Development Plan VIII in 2023, which aims to increase the share of renewable energy in Vietnam's energy mix to 30%–39% by 2050. The development and implementation of clean energy projects are essential to meeting this ambitious target and to driving sustainable economic growth. To further enhance this goal, the government plans to update the Power Development Plan VIII in mid-2025. This update will address existing challenges in renewable energy planning, refine targets, and incorporate new and updated renewable energy investment projects.
4. The Lam Son Clean Energy Complex project, located in Ninh Thuan Province, is identified as a priority investment to boost the energy transition in Vietnam toward net-zero by 2050. This project, with its combination of pumped storage hydropower, solar power, and battery storage, will play a significant role in Vietnam's energy transition and carbon reduction efforts. Funded by ETP, this study will support Petrovietnam Power Corporation (PV Power) in conducting an initial assessment to evaluate the technical potential, feasibility, socio-economic impacts, and preliminary investment roadmap for the clean energy complex.
5. The results of this study will enable PV Power and the Provincial Government of Ninh Thuan to propose the Lam Son project for inclusion in the updated Power Development Plan VIII, paving the way for comprehensive feasibility studies and attracting investment for full-scale implementation. This concept note outlines the objectives, key activities, and expected outcomes of the project, which is designed to support Vietnam's pathway to a sustainable, low-carbon energy future.

### III. Project Details

#### A. Rationale and Impact

6. The development of the Lam Son Clean Energy Complex in Ninh Thuan Province is essential for Vietnam's transition toward a sustainable, low-carbon energy system. This project is aligned with the government's commitment to net-zero emissions by 2050, as outlined in the Power Development Plan VIII, which targets a renewable energy share of 30%–39% in the energy mix by 2050. As a region with high solar irradiance and suitable topography for hydropower, Ninh Thuan is an ideal location for the Lam Son complex, which combines solar, pumped storage hydropower, and battery storage to deliver reliable, clean energy. This integration of renewable sources will play a critical role in stabilizing Vietnam's grid, particularly as the country phases out fossil fuel-based power sources and increases its reliance on renewable energy.
7. In addition to enhancing energy security, the Lam Son complex is expected to drive substantial socio-economic growth in Ninh Thuan Province. By creating employment opportunities and supporting the agro-electricity model, which combines clean energy production with agricultural activities, the project will foster income generation and improve the livelihoods of local communities. This model is particularly relevant for Ninh Thuan, where land use efficiency is paramount. The Lam Son complex's innovative design and technology integration will set a precedent for similar projects across Vietnam, demonstrating how large-scale renewable energy investments can contribute to both economic growth and environmental sustainability.
8. Furthermore, the project aligns with Vietnam's JETP RMP, emphasizing its role as a priority investment in the nation's clean energy landscape. By supporting PV Power to conduct a preliminary study and impact assessment, the study will lay the groundwork for future investment, contributing to Vietnam's long-term energy goals and solidifying the country's leadership in renewable energy development in Southeast Asia.

#### B. Objectives

9. The primary objective of this technical assistance is to lay the groundwork for the Lam Son Clean Energy Complex by delivering critical studies and insights to support Vietnam's energy transition. This effort aligns with the national net-zero emissions target for 2050 and the Power Development Plan VIII.
10. Specifically, the technical assistance will support Vietnam to:
  - a. **Establish a Renewable Energy Hub:** Develop the Lam Son Clean Energy Complex as a pivotal clean energy hub, incorporating solar power, pumped storage hydropower, and battery storage. This facility will enhance grid reliability, provide a stable power supply, and support Vietnam's energy transition goals.
  - b. **Align with National Climate and Energy Goals:** Support the objectives outlined in Power Development Plan VIII by accelerating renewable energy capacity growth in line with the national commitment to net-zero emissions. The project aims to reduce reliance on fossil fuels, increase renewable energy's share in the energy mix, and establish best practices for clean energy deployment in Vietnam.



- c. **Mobilize Investment and Financial Support:** Create a robust foundation for future investment by developing a preliminary study, assessing socio-economic impacts, and identifying potential financing opportunities. This groundwork will help PV Power attract approximately USD 3.98 billion in local and international financing, paving the way for full-scale implementation of the project.
- d. **Promote Local Socio-economic Development:** Drive economic growth and improve livelihoods in Ninh Thuan Province by creating jobs and supporting an agro-electricity model that integrates renewable energy production with agricultural practices. This approach will contribute to income generation, enhance land-use efficiency, and create a sustainable model for other regions in Vietnam.

### C. Outputs and Specific Activities

11. The project's primary output is a preliminary study that will assess the technical, financial, and environmental potential of the Lam Son Clean Energy Complex. This study will also include an initial evaluation of the socio-economic impacts and preliminary investment roadmap for the project, providing a foundation for feasibility study, future financing and development. In addition, the project will deliver an initial Environmental and Social Impact Assessment (ESIA), which will provide a high-level review of the potential impacts on local communities, land use, and environmental resources, ensuring that the project aligns with national and international sustainability standards. Following the completion of these studies, the project will seek endorsement from the Vietnamese Government and present findings to key stakeholders, including international investors, paving the way for the complex's inclusion in the updated Power Development Plan VIII.
12. Further outputs include Preliminary Engineering Specifications, which will outline the infrastructure and technical layout for solar power, pumped storage hydropower, and battery storage systems, identifying necessary design elements for efficient grid integration. The project will also generate an Initial Investment Report detailing technical specifications, cost estimates, and grid connection options, which will strengthen PV Power's ability to secure investment and regulatory approvals.
13. To achieve these outputs, the project will first conduct initial site surveys<sup>1</sup>, stakeholder engagements and data collection, gathering pre-existing information on topography, geology, and hydrometeorology to assess the suitability of the Lam Son site for renewable energy infrastructure. This data collection will include surveys of the existing electrical system to determine grid compatibility and review of environmental and social conditions to gauge potential impacts on local communities and resources. The project will then proceed with a regulatory and financial review to analyse costs, explore viable financing options, and ensure compliance with national energy policies and the goals of Power Development Plan VIII.
14. The project will also undertake preliminary technical design and risk analysis, which will involve developing initial engineering designs for solar, pumped hydro, and battery

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<sup>1</sup> The consultant shall include the costs associated with site survey activities in the financial proposal. The travel costs will be paid on a reimbursable basis, if applicable.

energy storage systems. This stage will include modelling for grid stability under various scenarios to ensure reliable and resilient energy integration. To foster collaboration and ensure alignment with local and national stakeholders, the project will conduct stakeholder engagement activities, including consultations with the Ministry of Industry and Trade (MOIT), Electricity of Vietnam (EVN), and local authorities, alongside meetings to address regulatory considerations and community concerns.

15. As part of its project planning, the team will develop a phased construction and implementation schedule, mapping out timelines for infrastructure installation, grid connection, and commissioning of each component. Supplementary planning reports, including technical specifications and cost assessments, will support the final outputs, equipping PV Power with the necessary resources to attract investment and proceed with feasibility studies.
16. Through these outputs and activities, the Lam Son Clean Energy Complex project aims to create a robust foundation for Vietnam's renewable energy transformation, ensuring technical viability, financial sustainability, and positive socio-economic impacts.

#### D. Project Timeline

17. The project will require 5 months and shall be completed no later than June 2025. The deliverables and activities are detailed below:

**Table 1. Tentative Project Timeline and Payment**

Month	Deliverables and Activities	Timeline	Payment (%)
<b>1</b>	<b>Initiation and Data Collection Report</b> <ul style="list-style-type: none"> <li>- Project kick-off and initial meetings with key stakeholders (MOIT, EVN, PV Power, local authorities)</li> <li>- Site survey and data collection, including available general topographic, geological, and hydrometeorological surveys</li> <li>- Collect data on existing electrical systems and environmental and social assessments for initial ESIA</li> </ul>	Month 1	20%
<b>2</b>	<b>Preliminary Investment Roadmap: Regulatory and Financial Review</b> <ul style="list-style-type: none"> <li>- Conduct regulatory compliance assessment to align with Power Development Plan VIII</li> <li>- Perform financial analysis and identify potential funding sources</li> <li>- Complete preliminary investment roadmap and financial projections for the project</li> </ul>	Month 2	20%
<b>3</b>	<b>Preliminary Technical Design and Risk Analysis</b> <ul style="list-style-type: none"> <li>- Develop initial engineering designs for pumped storage hydropower, solar PV, and battery storage systems. The initial engineering design identifies basic specifications including potential dam-size, potential locations of the future reservoirs, solar farm and the recommended scale and location of the battery storage.</li> </ul>	Month 3	20%

	<ul style="list-style-type: none"> <li>- Conduct initial technical assessment of grid connection based on available data and national power system plan.</li> <li>- Complete Initial Environmental and Social Impact Assessment (ESIA)</li> </ul>		
<b>4</b>	<b>Stakeholder Consultations and Preliminary Design Review</b> <ul style="list-style-type: none"> <li>- Hold consultations with stakeholders to review preliminary designs and gather feedback on technical and regulatory aspects</li> <li>- Refine engineering designs and update technical specifications based on stakeholder input</li> <li>- Complete supplementary planning reports, including technical specifications and cost estimates</li> </ul>	Month 4	20%
<b>5</b>	<b>Finalisation of Study and Reports</b> <ul style="list-style-type: none"> <li>- Complete the preliminary study, including initial socio-economic impact assessment and investment roadmap</li> <li>- Complete initial ESIA, incorporating stakeholder feedback and ensuring alignment with environmental and social standards</li> <li>- Complete initial investment report, including grid connection options and cost assessments, economic evaluation &amp; financial analysis for the project</li> </ul>	Month 5	20%
<b>6</b>	<b>Government Endorsement</b> <ul style="list-style-type: none"> <li>- Submit preliminary study and ESIA to the Vietnamese Government for endorsement</li> </ul>	Month 5	-

## IV. Stakeholders and Donor Activities

18. The key stakeholders involved in the preliminary study for the Lam Son Clean Energy Complex project are listed below. Further engagement and coordination will be conducted with other government stakeholders, local communities and donors once the project concept is accepted and the project is officially included in the Power Development Plan 8 revision.

- **Petrovietnam Power Corporation (PV Power):** As the project's primary beneficiary, PV Power will lead implementation and oversee technical, regulatory, and financial aspects. The project will help PV Power assess the potential of the clean energy complex, aligning it with Vietnam's Power Development Plan VIII.
- **Ministry of Industry and Trade (MOIT):** The MOIT will provide regulatory oversight and ensure the project's alignment with national energy goals. MOIT's involvement will be critical in facilitating approvals and ensuring compliance with renewable energy policies.
- **Electricity of Vietnam (EVN):** EVN will support the integration of the Lam Son complex into the national grid, assisting in grid connection assessments and data provision. EVN's expertise will be vital for technical assessments related to power distribution and system stability.

- **Ninh Thuan Provincial Government:** Local authorities will provide support in terms of land access, community engagement, and local regulatory compliance. They will also collaborate on socio-economic impact assessments to maximize local benefits.

19. In parallel with this technical assistance, ETP will support the PV Power to coordinate with the development partners, such as AFD, UK, Australian, German, Canadian governments as well as multi-lateral development partners to explore potential financing opportunities for the project.

## VI. Results-Based Monitoring Framework

20. The results of the project are monitored through the following RBMF in Table 2. All reports will update the achievement of the indicators.

**Table 2. Results-Based Monitoring Framework Outline**

<p><b>Project Name:</b></p> <p><b>Preliminary Study for Development of Clean Energy Complex in Ninh Thuan Province, Vietnam</b></p>	
<p><b>IMPACT</b></p> <ul style="list-style-type: none"> <li>• Increasing share of RE in the total primary energy supply (TPES)</li> <li>• Additional RE (non-combustible) installed capacity (GW)</li> </ul>	
<p><b>OUTCOME</b></p> <ol style="list-style-type: none"> <li>1. Policy alignment with climate commitments</li> <li>2. Increased flow of public and private investments to EE and RE projects in the power and end-user sectors</li> </ol>	
<p><b>OUTPUT</b></p> <ol style="list-style-type: none"> <li>1.2. National Fiscal policies, regulations, and Investment policies have undergone reforms to create an Investment Climate that is conducive to investment flow into RE/EE and improves its energy transition readiness for capital and investments.</li> <li>2.1 National budgets indicate a resolve to maximise EE/RE capacity by allocating increased amount of public funds and attracting FDI in the EE/RE sector</li> </ol>	
<b>INDICATOR</b>	<b>TARGET</b>
IN 1.1-02 - National energy plans reflect an ambition towards increasing the share of	- One National energy plan reflects an ambition towards increasing the share of 30%-39% of renewable energy by 2030 (PDP 8 targets)



RE/VRE, improving EE, and phasing-out fossil fuels	
IN 2-01 - Amount of Public, Private, and Blended finance flow into EE and RE	- The project is included in the list of priority projects in PDP 8 with an estimated investment of US\$3.96 billion.
IN 1.2-01 - No. of RE and EE related financing frameworks and fiscal reforms developed and presented to the government entities	Initial investment report, including grid connection options and cost assessments, economic evaluation & financial analysis completed and presented to the government entities.
IN 4.1-04 - Total no. of entities supported through Technical Assistance	PV Power

## ACTIVITIES

- **Stakeholder Consultations:** Engagement sessions with MOIT, EVN, and other key entities to align project goals with national energy strategies.
- **Site visits and surveys:** investigation of potential dam sites, solar farm and affected communities.
- **Site Assessment:** Environmental and social impact studies to validate site suitability for renewable energy installations.
- **Financial and Regulatory Review:** Analyze funding mechanisms, regulatory compliance, and alignment with Vietnam's Power Development Plan VIII.
- **Risk and Market Analysis:** Identification of key project risks, analysis of energy demand, and evaluation of power purchase agreements (PPAs).
- **Compilation of Preliminary Report:** Integration of all findings into a report for approval, enabling the project to proceed to the next phase of detailed feasibility assessment.

## VIII. Qualification and Experience of the Service Provider

21. The consultant's project team should demonstrate the capacity to execute the works and should include all essential roles filled with personnel with relevant experience. CV's of the personnel proposed should be used to verify this information.
22. The following are the minimum positions that should be included on the team. Bidders should make an assessment of the additional positions needed (if any) to complete the assignment as per Terms of Reference:
  - a. Project lead
  - b. Solar energy expert
  - c. Hydropower expert
  - d. Dam expert
  - e. Geological specialist
  - f. Meteo-Hydrological specialist
  - g. Electrical system expert
  - h. Battery technology expert
  - i. Cost estimation expert
  - j. Energy economic/ Financial Specialist

- k. Environmental Impact Specialist
- l. Social Impact Assessment Specialist

23. Considering the importance of close coordination with stakeholders in Viet Nam, it is expected that the team proposed consists of consultant(s) who understands the local context in Viet Nam.

24. The bidder should also assign a Contract Manager who would liaise on the non-technical part of the contract implementation, including coordination, liaising with key counterparts, liaising with UNOPS on submission of invoice and payment-related documents.

## IX. Evaluation Criteria

### A. Eligibility and Formal Criteria

25. The criteria contained in the table below will be evaluated on Pass/Fail basis and checked during Preliminary Examination of the proposals:

Criteria	Documents to establish compliance with the criteria
1. Offeror is eligible as defined in Instructions to Offerors, Article 4	<ul style="list-style-type: none"> <li>• Form A: Joint Venture Partner Information Form, all documents as required in the Form, in the event that the Proposal is submitted by a Joint Venture.</li> <li>• Form B: Proposal Submission Form</li> </ul>
2. Completeness of the Proposal. All documents and technical documentation requested in Instructions to Offerors Article 10 have been provided and are complete	<ul style="list-style-type: none"> <li>• All documentation as requested under Instructions to Offerors Article 10, Documents Comprising the Proposals</li> </ul>
3. Offeror accepts UNOPS General Conditions of Contract as specified in Section IV	<ul style="list-style-type: none"> <li>• Form B: Proposal Submission Form</li> </ul>

### B. Qualification Criteria

26. The criteria contained in table below will be evaluated on Pass/Fail basis and checked during Qualification Evaluation of the proposals.

Criteria	Documents to establish compliance with the criteria
<p>1. The bidder should have consulting continuous experience from 15 years in the energy sector, that proves the quality of large power projects and has the inter-sector professional capacity to synthesize related components of the energy complex :</p> <ul style="list-style-type: none"> <li>• The entity/ JV must have in-country presence in Viet Nam</li> </ul>	<ul style="list-style-type: none"> <li>• Certification of incorporation of the Offeror including the JV member.</li> <li>• Form F: Performance Statement Form</li> </ul>

<ul style="list-style-type: none"> <li>The entity's experience working with government agencies/ multilateral organizations/ UN organizations will be an asset</li> </ul> <p>In case of JV, at least one of the JV members should fulfil this criteria</p>	
<p>2. Offeror must provide a minimum of two (2) customer references (including name, email address, and phone number of the focal point) within any of the last 15 years. In case of JV, at least one reference from the JV should be submitted. UNOPS may contact the customer reference when the bidder is awarded the contract.</p>	<ul style="list-style-type: none"> <li>Form F: Performance Statement Form</li> </ul>
<p>3. Financial Capacity/financial stability:</p> <ul style="list-style-type: none"> <li>Bidders should have a minimum annual turnover of <b>100,000</b> USD in any of the past 2 years. Or the bidder has access to a line of credit or bank overdraft or other financial means to meet a working capital/cash flow requirement of 100,000 USD (should the bidder be selected).</li> <li>Liquidity: Sufficient liquidity of at least 1 in any of the past 2 years. Demonstrated by current assets divided by current liabilities.</li> </ul> <p>In the case of a joint venture, annual turnover is calculated based on the total annual turnover of the JV members. And at least one of the JV members should have at least 1 of liquidity/quick ratio in any of the past 2 years.</p>	<p>Offeror should submit</p> <ul style="list-style-type: none"> <li>Audited financial statements confirmed by Chartered/Accountant for the past 02 years</li> <li>Or any other document/statement Bank Statement / Tax declaration statement to the local government, or any similar local arrangement.</li> </ul>

### C. Technical Criteria

27. Technical evaluation will be carried out to bids that pass the eligibility, formal and the qualification criteria, with requirements as follows:

- The maximum number of points that a bidder may obtain for the Technical proposal is 70. To be technically compliant, Bidders must obtain a minimum of 49points
- Minimum pass score: 70% of maximum 70 points = 49 points

#### Technical proposal points allocation

Section number/description		Points Obtainable
1.	Offeror's qualification, capacity and expertise	20
2.	Proposed Methodology, Approach and Implementation Plan	30
3.	Key Personnel proposed and Sustainability Criteria	20
Total Technical Proposal Points		70

## Section 1: Offeror's qualification, capacity and expertise

Section 1: Offeror's qualification, capacity and expertise		Points	Sub points
1.1	<p><b>Brief description of the organization, including the year and country of incorporation, and types of activities undertaken, including relevance of specialized knowledge and experience on similar engagements done in the past.</b></p> <p><b>Bidders partnering up with a local entity to provide for the strategic consultation, translations; as well as the communications expertise is considered a valuable asset.</b></p>	17	
	<p>1. The entity should demonstrate extensive experience of researching and working on the subject matters. This includes:</p> <ul style="list-style-type: none"> <li>• Proven extensive knowledge on large hydropower or pumped storage hydropower with large capacity; (hydropower with more than 1000 MW);</li> <li>• Capacity for consulting on renewable energy project, specifically large solar power projects in Viet Nam, (with more than 200 MWp in Vietnam preferable in at least 3 similar contracts);</li> <li>• Experience in battery technologies;</li> <li>• Proven capacity in calculating power systems and releasing large power source capacity more than 1GW in VietNam;</li> <li>• Proven consulting experiences on power transmission lines and substations up to 500 kV;</li> <li>• Survey experiences on natural condition to serve Pre-FS of related components of the energy complex,</li> <li>• Competence in legal advice on energy and electricity markets;</li> <li>• Extensive knowledge in renewable energy supply chain policies and regulatory institutional advisory, in Viet Nam preferably</li> </ul>		6
	<p>2. Demonstrates significant experience on the subject matters in Viet Nam. This includes:</p> <ul style="list-style-type: none"> <li>• Proven experience in working with and providing advisory services and capacity building for private sectors and ministries in Vietnam</li> </ul>		7
	<p>3. Demonstrates an ability to engage locally for stakeholder engagement, information gathering, and information dissemination</p>		4
1.2	<p><b>General organizational capability which is likely to affect implementation: management structure, and project management controls.</b></p> <p>(Max 4 pages written text)</p>	3	
	<p>Management structure, management controls, and extent to which any part would be subcontracted. In case of JV, there is clear designation of roles and responsibilities between the JV members.</p>		3
<b>Total points for section</b>		<b>20</b>	

## Section 2: Proposed Methodology, Approach and Implementation Plan

Section 2: Proposed Methodology, Approach and Implementation Plan		Points	Subpoints
2.1	<b>Description of the Offeror's approach including risk(s) and mitigation measure(s) and methodology for meeting or exceeding all the deliverable requirements of the Terms of Reference</b> In the description of each deliverable, the offeror is expected to demonstrate a comprehensive understanding of the supply chain landscape in Viet Nam.	22	
	1. Demonstrate an understanding of the current context relevant to the assignment and in Viet Nam, and the overall understanding of this assignment together with an overview of approach to achieve all deliverables.		4
	2. Description of the offeror's detailed approach to achieve D.3 - Phase 1 Report: <b>Preliminary Technical Design and Risk Analysis</b>		5
	3. Description of the offeror's detailed approach to achieve D. 4 - Phase 2 Report: <b>Stakeholder Consultations and Preliminary Design Review</b>		5
	4. Description of the offeror's detailed approach to achieve D. 5 - Phase 3 Report: <b>Finalisation of Study and Reports including</b> preliminary study and Initial ESIA		5
	5. Description of the offeror's detailed approach to achieve D.6 - Phase 4: <b>Government Endorsement and Presentation to Investors</b>		3
2.2	<b>Quality Assurance</b> A plan outlining how the bidder intends to ensure oversight and quality assurance throughout the assignment. Quality Assurance plan should include discussion on risk-assessment and its mitigation plan	4	
2.3	<b>Implementation Timeline</b> The bidder's implementation plan will include a Gantt chart that visually depicts the project timeline. The chart will clearly define the start and end dates for each activity, allowing for the measurement of progress and adherence to the planned time frame.	4	
<b>Total points of the section</b>		<b>30</b>	

## Section 3: Key personnel proposed and Sustainability Criteria

Section 3: Key personnel proposed and Sustainability Criteria		Points	Sub points
3.1	<b>Qualifications of key personnel proposed</b>	<b>17</b>	
	a) Project lead		4
	b) Solar energy expert		2
	c) Hydropower expert		2
	d) Dam expert		1
	e) Geological specialist		1
	f) Meteo-Hydrological specialist		1



Section 3: Key personnel proposed and Sustainability Criteria		Points	Sub points
	g) Electrical system expert		1
	h) Battery technology expert		1
	i) Cost estimation expert		1
	j) Energy economic/ Financial Specialist		1
	k) f) Environmental Impact Specialist		1
	l) g) Social Impact Assessment Specialist		1
3.2	<b>The bidder shall provide a statement or approach that demonstrates its commitment to support and mainstream gender equality and social inclusion through its operations and project implementation activities</b>	<b>3</b>	<b>3</b>
<b>Total points of the section</b>		<b>20</b>	

#### The Scoring Matrix for Key Personnel

Title	Minimum requirements for education	Minimum requirements for experience	Max Points
Project Lead	<p>Advanced university degree (Master's degree or higher education) in electrical engineering, hydropower, renewable energy , or a related discipline is required.</p> <p>Bachelor's degree in a related field and two years experience are considered equivalent.</p> <p>(0.5 point)</p>	<p>A minimum of 15 years of relevant experience in electrical engineering, hydropower or renewable energy, or related fields, preferably in Viet Nam. Out of the 10 years of relevant experience, a minimum 2 years of leadership experience is required.</p> <p>Involvement in at least 2 projects on large hydropower (&gt;1000MW) or renewable energy (&gt;200MW), preferably in Viet Nam.</p> <p>Involvement in at least 2 projects advising governments or international organizations in electrical engineering, or hydropower or renewable energy, <b>mandatory in Viet Nam.</b></p> <p>(3.5 points)</p>	4
Solar energy expert	<p>University degree in in Civil Engineering, renewable engineering or related discipline is required with minimum 10 years of experience in solar energy field</p> <p>(0.5 points)</p>	<p>Involvement as senior engineer in at least 2 projects on large solar energy projects from 200MWp, preferably in Viet Nam.</p> <p>(1.5 points)</p>	2
Hydropower expert	<p>University degree in Civil Engineering with minimum 10 years of experience in hydraulic design of power</p>	<p>Involvement as senior engineer in at least 2 projects on large hydropower or Hydro pumping station projects from 500MW, preferably in Viet Nam.</p>	2

	waterways and design of hydropower stations. (0.5 points)	(1.5 points)	
Dam expert	University degree in Civil Engineering with minimum 10 years of experience in hydraulic design of power waterways and design of hydropower stations. (0.25 points)	Involvement as senior engineer in at least 2 projects on large hydropower or Hydro pumping station projects from 500MW, preferably in Viet Nam. (0.75 points)	1
Geological specialist	University degree in Geological Engineering with minimum 5 years of experience in interpretation of geological and geotechnical information, and engineering geological assessments. (0.25 points)	Involvement as senior engineer in at least 2 projects on large hydropower (>1000MW) or Hydro pumping station or renewable energy projects, preferably in Viet Nam. (0.75 points)	1
Meteo-Hydrological specialist	University degree in a related field with minimum 5 years of experience in hydrological studies of hydropower projects including reservoir simulation modeling. (0.25 points)	Involvement as senior engineer in at least 2 projects on large hydropower or Hydro pumping station projects from 500MW, preferably in Viet Nam. (0.75 points)	1
Electrical system expert	University degree in Electrical or Mechanical Engineering with minimum 5 years of experience in studies of electromechanical and hydromechanical equipment for hydropower projects. International experiences are required. (0.25 point)	Involvement as senior engineer in at least 2 projects on power transmission lines or substations up to 500 kV, preferably in Viet Nam. (0.75 points)	1
Battery Technology Expert	Advanced university degree (Master's degree or equivalent) in electrical engineering or a related field.  Bachelor's degree and two years experience in a related field are considered equivalent.  A minimum of 5 years of professional experience in battery manufacturing processes, battery technology research, development, and implementation, with a focus on renewable energy applications, preferably in Viet Nam.	Involvement in at least 2 projects in the following fields: battery chemistry, energy storage systems, and battery management systems, renewable energy technologies, especially in the context of EV, solar PV, and other RE power plants. (0.75 points)	1

	(0.25 point)		
Cost estimation expert	Bachelor's degree with minimum 5 years experience in finance, economics, or a related field. (0.25 points)	Involvement as senior engineer in at least 2 projects on large hydropower (>500MW); or Hydro pumping station or renewable energy projects, preferably in Viet Nam.  (0.75 points)	1
Financial specialist	Advanced university degree (Master's degree or equivalent) in finance, economics, or a related field.  Bachelor's degree and two years experience in a related field are considered equivalent.  A minimum of 5 years of experience in financial analysis, financial modelling, investment evaluation, or project finance, preferably in the industrial sector.  (0.25 point)	Involvement in at least 2 projects (>450MW) on financial feasibility of large-scale projects, preferably in Viet Nam  Involvement in at least 2 projects advising governments and/ or international organizations in hydropower or renewable energy in Viet Nam.  Involvement in at least 2 projects that contain sustainable finance principles and the integration of environmental and social factors into financial analysis.  (0.75 points)	1
Environmental Impact Assessment Specialist	Advanced university degree (Master's Degree or equivalent) in Environmental Science, Environmental Engineering, Sustainability, or a related field.  Bachelor's degree and two years experience in a related field are considered equivalent.  A minimum of 5 years of professional experience in environmental impact assessments (ESIA and SEA), environmental management, or related roles in the energy sector;  (0.25 point)	Involvement in at least 2 large scale projects on EIA (>200MW);.  Involvement in at least 2 projects advising governments and/ or international organizations in a large scale hydropower or renewable energy, preferably in Viet Nam  (0.75 points)	1
Social Impact Assessment Specialist	A Master's Degree in Gender Studies, Social Sciences, Sociology, Anthropology, Environmental Science, or a related field.  Bachelor's degree and two years experience in a related field are considered equivalent.  A minimum of 5 years of professional experience in	Involvement in at least 2 projects on social impact assessment (>200MW), preferably in Viet Nam or Southeast Asia.  Expertise in designing and implementing social inclusion strategies, including marginalized and vulnerable groups.	1

	gender and social inclusion (GSI) assessments, social impact assessments (SIA), or related roles.  (0.25 point)	Experience in identifying and analyzing gender-based and social inequalities and vulnerabilities related to energy  (0.75 points)	
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## D. Financial Criteria

28. The financial part of those proposals that are found to be technically compliant will be evaluated as follows.

29. The maximum number of points that a bidder may obtain for the Financial Proposal is 30. The maximum number of points will be allocated to the lowest evaluated price bid. All other prices will receive points in reverse proportion according to the following formula:

30. Points for the Financial Proposal of a bid being evaluated =

$$\frac{[\text{Maximum number of points for the Financial Proposal}] \times [\text{Lowest price}]}{[\text{Price of proposal being evaluated}]}$$

[Price of proposal being evaluated]

31. Financial proposals will be evaluated following completion of the technical evaluation. The bidder with the lowest evaluated cost will be awarded (20) points. Financial proposals from other bidders will receive prorated points based on the relationship of the bidder's prices to that of the lowest evaluated cost.

### Formula for computing points: Example

Points = (A/B) Financial Points
Bidder A's price is the lowest at \$20.00. Bidder A receives 30 points
Bidder B's price is \$40.00. Bidder B receives (\$20.00/\$40.00) X 30 points = 15 points

32. The total score obtained in both Technical and Financial proposals will be the final score for the proposal, with 70% allocated to the Technical proposal and 30% to the Financial proposal. The proposal obtaining the overall highest score will be considered as the winning proposal. This proposal will be considered to be the most responsive to the needs of UNOPS in terms of value for money.

33. The selection of the preferred bidder will be based on a cumulative analysis, analysing all relevant costs, risks and benefits of each proposal throughout the whole life cycle of the services and in the context of the project as a whole. The lowest priced proposal will not necessarily be accepted.