

<b>Country</b>	<b>Vanuatu</b>
<b>Request ID#</b>	<b>2021000011</b>
<b>Title</b>	<i>Enhancing Vanuatu's market for energy efficient appliances</i>
<b>NDE</b>	<i>Mrs Esline Garaebiti, Director General, Ministry of Climate Change, Government of Vanuatu Email: <a href="mailto:gesline@vanuatu.gov.vu">gesline@vanuatu.gov.vu</a> Tel: +678 22068</i>
<b>Proponent</b>	<i>Mr Antony Garae, Director, Department of Energy, Ministry of Climate Change, Government of Vanuatu Email: <a href="mailto:gantony@vanuatu.gov.vu">gantony@vanuatu.gov.vu</a> Tel: +678 25201</i>

**Summary of the CTCN technical assistance**

*The summary should provide a brief description of the problem (barrier to climate technology deployment) and how the technical assistance will address it (brief summary of outputs and activities). Please also briefly indicate national actors involved and the anticipated timeline. Please note this summary will be used for public communication purposes so it is important that it is well written. (maximum 1250 characters including spaces).*

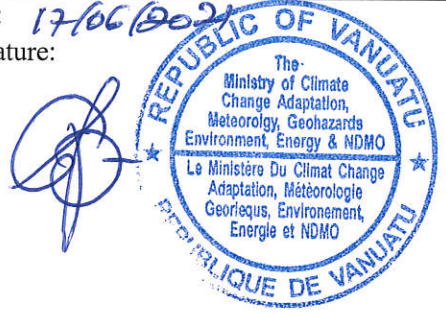
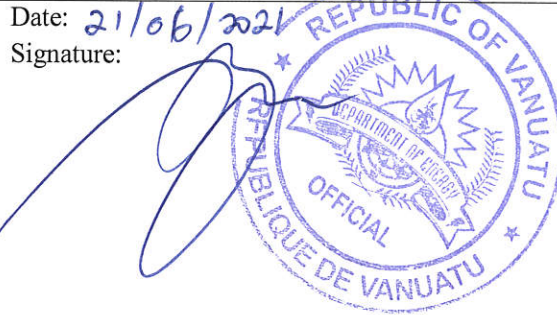

Vanuatu has set ambitious targets of reaching 100% renewable energy for electricity production by 2030, requiring 15% energy savings through energy efficiency measures. However, progress towards achieving such measures requires effective policies, relevant legislation, information-based planning, and private sector participation, amongst others, to facilitate activities towards meeting the national energy targets.

The urban household appliance and energy use survey in 2013 indicated that many appliances currently used in households, including refrigerators, freezers, air conditioners and lighting products are outdated and highly inefficient. Therefore, Vanuatu has introduced legislations on labelling and standards for appliances with the assistance of the Pacific Community (SPC) Pacific Appliance and Labelling Standards (PALS) Project (2012 – June 2019). The labelling and standards regulations were adopted in 2017 and has since been implemented and enforced. However, the impact of the programme to the nation has not been quantified, and the effectiveness has been undermined by a missing monitoring, evaluation and enforcement plan, as well as missing financial schemes to incentivize the uptake in households.

This CTCN technical assistance aims at conducting a technical market and policy assessment in order to identify challenges and bottlenecks to the effectiveness of the standards and labelling programme, and will support the introduction of a comprehensive monitoring, evaluation and enforcement plan as well as of targeted financial mechanisms to accelerate the uptake of energy efficient appliances in Vanuatu.

**Agreement:**

*(If possible, please use electronic signatures in Microsoft Word file format)*

<p><b>National Designated Entity to the UNFCCC Technology Mechanism</b></p>	<p><b>Proponent</b> (signature of the Proponent is optional)</p>
<p>Name: <i>Mrs Esline Garaebiti</i></p>	<p>Name: <i>Mr Antony Garae</i></p>
<p>Title: <i>Director General</i></p>	<p>Title: <i>Director</i></p>
<p>Date: <i>17/06/2021</i> Signature:</p> 	<p>Date: <i>21/06/2021</i> Signature:</p> 
<p><b>UNFCCC Climate Technology Centre and Network (CTCN)</b></p>	
<p>Name: <i>Rose Mwebaza</i></p>	
<p>Title: <i>CTCN Director</i></p>	
<p>Date: <i>22/06/2021</i> Signature:</p> 	

## **1. Background and context**

*Please provide a brief description of the background and context for the CTCN Response Plan. Please include national and sectoral information using recognized and publicly available sources. (maximum 2500 characters including spaces).*

Vanuatu is strongly affected by and extremely vulnerable to climate change. Considering a wide range of natural hazards, Vanuatu ranked first out of 171 countries in the World Risk Index 2017 indicating their high susceptibility towards natural hazards.

Vanuatu has submitted ambitious mitigation actions as part of their Nationally Determined Contributions (NDC) of which energy is a key sector (adoption of a 100% renewable energy target for electricity generation by 2030). Achieving Vanuatu's mitigation targets requires energy efficiency measures to be pursued to enable 15% savings in the energy sector. Such measures include accelerating the uptake and use of energy efficient appliances and increase the share of efficient appliance users. Vanuatu's Climate Change and Disaster Risk Reduction Policy 2016-2030 identifies low carbon development as one of the six strategic priorities to achieve resilient development. Vanuatu's GCF Country Programme identified that the major source of CO<sub>2</sub> emissions was in the energy sector and recognized that one of the mitigation measures in their NDC is the implementation of energy efficiency measures across all sectors to enable 15% savings in the energy sector. Under the environment goals and objectives of the National Sustainable Development Plan (2016-2030), it highlights as one of the objectives the promotion of renewable sources of energy and efficient use of energy. However, progress towards achieving such measures requires effective policies, relevant legislation, information-based planning, and private sector participation, amongst others, to facilitate activities towards meeting the national energy targets.

Vanuatu has no manufacturing industry of its own, and all capital equipment for energy supply and consumption are imported, as well as the fossil fuels used in generation (almost all of which is diesel). Historically, the end-use equipment imported to Vanuatu has been of medium to low energy efficiency, because it had no way of identifying more energy efficient products or controlling the import of inefficient ones.

In Vanuatu, the urban household appliance and energy use survey in 2013 indicated that in Port Vila, 43% of households have refrigerators with very few have energy efficiency labels. About a fifth of refrigerators and freezers have leaking or poorly fitting door seals. Replacing these refrigerators and freezers should result in considerably less electricity use for cooling. There were fewer residential aircons. 46% of household use Compact Fluorescent Lights (CFL), 39% use linear Fluorescent Tube Lights (FTL) and 12% Incandescent Lights (ILs). Many CFLs are low-quality lights likely to have a limited lifetime. 70% of the FTLs are the old fat T12 type, which are inefficient and are suitable for cost-effective replacement, especially when used outdoors for night time security lighting. All incandescent lights would also be suitable for replacement with quality CFLs or FTLs. In Luganville, 28% of households have refrigerators (compared to 43% in Port Vila). Very few have energy efficiency labels. As in Port Vila, about a fifth of refrigerators in Luganville have leaking or poorly fitting door seals, which should be replaced to improve energy efficiency. 47% of households use CFLs, 41% are FTLs, and 11% are ILs. 61% of FTLs in the surveyed households are the old,

inefficient T12s. As in Port Vila, these are suitable for cost-effective replacement. Household penetration of efficient refrigerators, freezers and air conditioners remain low in Vanuatu.

Vanuatu has implemented an appliance energy labelling and standards programme since 2017 for refrigerators, freezers, air conditioning units and lighting products. However, the impact of the programme to the nation has not been quantified as there was no impact evaluation done.

## **2. Problem statement**

*Founded on the national and sectoral context as detailed in the section above, please include a brief problem statement clarifying the main problems and barriers for climate change mitigation and/or adaptation in terms of climate technologies that the CTCN Response Plan will address and overcome. (maximum 1250 characters including spaces).*

The appliance energy labelling and standards programme is fairly new in its implementation and is challenged by a few barriers. In terms of technical means, there are limited skilled capacities to conduct technical assessments on the national impacts of energy labelling and standards and no prior knowledge in introducing appropriate guidelines and plans for monitoring, verification and enforcement of the labelling and standards. Furthermore, in terms of financial means, there are currently no loan facilities or subsidies and no incentives for consumers to be able to purchase regulated energy efficient refrigerators, freezers and aircons making it difficult for ordinary households to buy these appliances. This hinders the uptake of energy efficient appliances in Vanuatu.

Therefore, the CTCN support is needed to evaluate the effectiveness and impact of the recently introduced energy labelling and standards programme, and to identify and introduce effective MV&E activities and financial mechanisms in order to accelerate the uptake of energy efficient appliances in Vanuatu.



<p><b>Activity 2.1: Kick-off meeting (digital)</b></p> <p>Organise a kick-off meeting with the NDE, project proponent, CTCN and other key stakeholders (Ministry of Finance, Ministry of Energy, stakeholders from the PALS project, etc.) in order to present the planned activities of the technical assistance, to identify relevant documents and related activities, as well as to define a project stakeholder group.</p>			<p><b>Activity 2.2: Detailed market assessment for refrigerators, freezers, air conditioners and lighting products</b></p> <p>Conduct detailed market assessment for refrigerators, freezers, air conditioners and lighting products including current stock and future growth, energy saving potential, stakeholders mapping, impact of electricity losses and energy savings on government budget (since electricity is subsidized).</p> <p>This market assessment can draw from existing data from the SPC PALS Project and other relevant projects and should be supplemented with primary data collection if required.</p>			<p><b>Activity 2.3: Analysis of the existing labelling and standards program for energy efficient appliances</b></p> <p>Evaluate the effectiveness and impact of the existing appliances energy labeling and standards program for household refrigerators, freezers, air conditioners and lighting products. The analysis should result in an evaluation of the overall program efficiency and impact (compared to expected impact), and particularly identify opportunities, challenges and gaps related to (1) standards and policies, (2) compliance and monitoring, and (3) financing.</p> <p>For this purpose, the following activities are to be performed:</p> <ol style="list-style-type: none"> <li>1. Review of the existing appliance energy labelling legislation, regulation, and regulatory procedures</li> <li>2. Review of the administration of the program and related costs</li> <li>3. Consultation with representative stakeholders on their views in relation to the introduced appliance energy labelling and standards program</li> <li>4. Analysis of available data to gauge the level of compliance</li> </ol>																																			

<p>Along this evaluation, specific consideration should be given to women, youth and other marginalized groups in order to highlight their perceptions, how they are affected by specific barriers and what opportunities may arise.</p>									
<p><b>Activity 2.4: Recommendations on the improvement of the existing labelling and standards program</b></p> <p>Based on the results of Activity 2.2 and 2.3, provide recommendations on the further improvement of the existing labelling and standards program that are related, i.e., to the above-mentioned categories, being (1) standards and policies, (2) compliance and monitoring, and (3) financing. These recommendations will provide a basis for Outputs 3 and 4.</p>									
<p><b>Deliverable 2:</b></p> <ul style="list-style-type: none"> <li>2.1: Meeting report</li> <li>2.2: Market assessment</li> <li>2.3: Evaluation report</li> <li>2.4: Recommendations for the program improvement</li> </ul> <p>and</p>	<p>X</p>						<p>X</p>	<p>X</p>	<p>X</p>
<p><b>Output 3: Assess and upgrade the existing Vanuatu Electronic Single Window (VeSW) registration system and develop a MV&amp;E plan</b></p>									
<p><b>Activity 3.1: Development of a MV&amp;E plan</b></p> <p>Development of national MV&amp;E plan for household refrigerators, freezers, air conditioners and lighting products. The national MV&amp;E framework shall be based on the usage of a product registry system, capacity reinforcement of custom officials, and the design of non-compliance measures.</p> <p>Control at the border will be central in the country's MV&amp;E plan since all appliances are imported.</p>									
<p><b>Activity 3.2: Assess and upgrade the existing VeSW product registration system</b></p> <p>Analyze the legislation and regulatory requirements and limitations, standard operating procedures, pre-existing product registries or databases, and stakeholders needs through desk research and stakeholder consultations. Define the detailed specifications for the development of the product registration system web facility, including, i.e. the system architecture, database requirements, portal requirements, user types, input forms, lists of data points, process flow diagrams, and system functions. Validate the specifications with the relevant authorities and</p>									

<p>stakeholders.</p> <p>As a second step, develop the product registration system based on the validated specifications and conduct user acceptance testing (UAT) in order to develop a final version.</p> <p>UNEP's United for Efficiency (U4E) has established guidance material<sup>1</sup> on the implementation of a product registration system which can be used for this process. Furthermore, U4E will make available a pre-developed modular product registration system including refrigerators, freezers, air conditioners and lighting products in Q3 2021 that can be used as a foundation and further adapted to the national context in Vanuatu.</p>	
<p><b>Activity 3.3: Design of a training curriculum for custom officials</b></p> <p>Design training curriculum and materials on standards and labelling, MV&amp;E and the product registration system for appliances for custom officials. The training curriculum will be developed through a capacity building needs assessments.</p>	
<p><b>Activity 3.4: Delivery of a training of trainers program</b></p> <p>Organize training of trainers. Local trainers will be selected and trained so they can deliver training of custom officials on a long-term basis.</p>	
<p>Deliverables 3:</p> <ul style="list-style-type: none"> <li>3.1: MV&amp;E Plan</li> <li>3.2: Product registry system</li> <li>3.3: Training curriculum and material</li> <li>3.4: Training report</li> </ul>	<p>X</p> <p>X</p> <p>X</p> <p>X</p>
<p><b>Output 4: Development of financing mechanisms for the incentivization towards the purchase of energy efficient appliances</b></p>	
<p><b>Activity 4.1: Identification of options for national financing mechanisms</b></p>	

<sup>1</sup> [https://united4efficiency.org/wp-content/uploads/2019/10/U4E\\_PRS\\_GN-04\\_191008.pdf](https://united4efficiency.org/wp-content/uploads/2019/10/U4E_PRS_GN-04_191008.pdf)

<p>Review international best practices in terms financing mechanisms for the uptake of energy efficient appliances (household refrigerators, freezers, air conditioners and lighting products), analyze national conditions (electricity tariff structures, existing financing mechanisms, barriers and challenges to financing the regulated products, etc.) and prepare recommendations in terms of finance mechanisms, including fiscal incentives (duties, taxes, subsidies, etc.), appliance take-back options, and innovative financing schemes (on-bill financing, revolving loan funding, etc.).</p> <p>During the preliminary evaluation of options for national financing mechanisms, criteria related to social, economic, financial and environmental factors should be taken into account. The benefits and potential barriers for women in the adoption of energy efficient appliances should be considered in the identification of suitable national financing mechanisms.</p>		<p><b>Activity 4.2: Financing mechanisms consultation workshop</b></p> <p>Organize a consultation workshop on financial mechanisms and options for the different appliances with relevant stakeholders. The outcome of the workshop should be the selection of up to 3 appropriate and prioritized financing schemes for implementation.</p>		<p><b>Activity 4.3: Design of selected financial mechanism(s) and related implementation plan</b></p> <p>Develop a detailed implementation plan of the selected financial mechanism(s) in coordination with relevant stakeholders. The implementation plan should provide information on the design and expected impacts (economic, environmental, social; with specific focus on gender and youth) of the financial mechanisms as well as the responsibilities, costs and timelines for implementation.</p>		<p>Deliverables 4:</p> <ul style="list-style-type: none"> <li>4.1: Report on national financing mechanism options</li> <li>4.2: Workshop report including 3 financing schemes for implementation</li> <li>4.3: Recommendations on the design of and implementation for 3 selected financing schemes</li> </ul> <p><b>Output 5: Project closure</b></p> <p><b>Activity 5.1: Closure meeting</b></p>	<p>X</p> <p>X</p> <p>X</p>
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<p>analysis for higher efficiency refrigerators, freezers, air conditioners and lighting products</p>	<p><i>IC4: 7 days</i> <i>IC5: 1 day</i> <i>NC1: 26 days</i> <i>NC2: 7 days</i></p>					
<p>Activity 2.1: Kick-off meeting (digital)</p>	<p><i>IC1: 1 day</i> <i>IC2: 1 day</i> <i>IC3: 1 day</i> <i>IC4: 1 day</i> <i>IC5: 1 day</i> <i>NC1: 1 day</i> <i>NC2: 1 day</i></p>		<p><i>Virtual meeting</i></p>		<p>\$ 2,900</p>	<p>\$ 3,190</p>
<p>Activity 2.2: Detailed market assessment for refrigerators, freezers, air conditioners and lighting products</p>	<p><i>IC1: 10 days</i> <i>IC2: 10 days</i> <i>IC3: 2 days</i> <i>IC4: 2 days</i> <i>NC1: 10 days</i> <i>NC2: 2 days</i></p>				<p>\$ 14,400</p>	<p>\$ 15,840</p>
<p>Activity 2.3: Analysis of the existing labelling and standards program for energy efficient appliances</p>	<p><i>IC1: 10 days</i> <i>IC2: 10 days</i> <i>IC3: 2 days</i> <i>IC4: 2 days</i> <i>NC1: 10 days</i> <i>NC2: 2 days</i></p>				<p>\$ 14,400</p>	<p>\$ 15,840</p>
<p>Activity 2.4: Recommendations on the improvement of the existing labelling and standards program</p>	<p><i>IC1: 5 days</i> <i>IC2: 5 days</i> <i>IC3: 2 days</i> <i>IC4: 2 days</i> <i>NC1: 5 days</i></p>				<p>\$ 8,400</p>	<p>\$ 9,240</p>

<b>Output 3:</b> <b>Development of a product registry system and MV&amp;E plan</b>	<i>NC2: 2 days</i> <i>IC1: 3 days</i> <i>IC2: 3 days</i> <i>IC3: 42 days</i> <i>IC4: 2 days</i> <i>IC5: 39 days</i> <i>NC1: 17 days</i> <i>NC2: 6 days</i>				<b>\$ 67,680</b>	<b>\$ 74,668</b>
<b>Activity 3.1:</b> <b>Development of a MV&amp;E plan</b>	<i>IC1: 2 days</i> <i>IC2: 2 days</i> <i>IC3: 15 days</i> <i>IC4: 2 days</i> <i>IC5: 2 days</i> <i>NC1: 5 days</i> <i>NC2: 2 days</i>				<b>\$ 12,900</b>	<b>\$ 14,190</b>
<b>Activity 3.2:</b> <b>Development of a product registration system</b>	<i>IC1: 1 day</i> <i>IC2: 1 day</i> <i>IC3: 10 days</i> <i>IC5: 30 days</i> <i>NC1: 5 days</i>				<b>\$ 22,000</b>	<b>\$ 24,200</b>
<b>Activity 3.3:</b> Design of a training curriculum for custom officials	<i>IC3: 15 days</i> <i>IC5: 5 days</i> <i>NC1: 5 days</i> <i>NC2: 2 days</i>				<b>\$ 11,400</b>	<b>\$ 12,540</b>
<b>Activity 3.4:</b> Delivery of a training of trainers program	<i>IC3: 2 days</i> <i>IC5: 2 days</i> <i>NC1: 2 days</i> <i>NC2: 2 days</i>	International travel <sup>2</sup> : <i>IC3, IC5</i>  National travel: <i>NC1,</i>	Training the trainers programme with 20 participants	Training material	<b>\$ 21,580</b>	<b>\$ 23,738</b>

<sup>2</sup> The budget is indicative, and the actual cost will be based on the country from where the experts will travel for international missions.

<p><b>Output 4: Development of financing mechanisms for the incentivization towards the purchase of energy efficient appliances</b></p>	<p><i>IC1: 11 days IC4: 31 days NC1: 11 days NC2: 5 days</i></p>	<p>NC2</p>			<p>\$ 24,200</p>	<p>\$ 26,620</p>
<p><b>Activity 4.1: Identification of options for national financing mechanisms</b></p>	<p><i>IC1: 5 days IC4: 15 days NC1: 5 days NC2: 2 days</i></p>				<p>\$ 11,400</p>	<p>\$ 12,540</p>
<p><b>Activity 4.2: Financing mechanisms consultation workshop</b></p>	<p><i>IC1: 1 day IC4: 1 day NC1: 1 day NC2: 1 day</i></p>		<p><i>Virtual workshop</i></p>		<p>\$ 1,400</p>	<p>\$ 1,540</p>
<p><b>Activity 4.3: Design of selected financial mechanism(s) and related implementation plan</b></p>	<p><i>IC1: 5 days IC4: 15 days NC1: 5 days NC2: 2 days</i></p>				<p>\$ 11,400</p>	<p>12,540</p>
<p><b>Output 5: Project closure</b></p>	<p><i>IC1: 1 day IC2: 1 day IC3: 1 day IC4: 1 day IC5: 1 day NC1: 1 day NC2: 1 day</i></p>				<p>\$ 2,900</p>	<p>\$ 3,190</p>
<p><b>Activity 5.1: Closure</b></p>	<p><i>IC1: 1 day</i></p>		<p><i>Virtual meeting</i></p>		<p>\$ 2,900</p>	<p>\$ 3,190</p>

meeting	IC2: 1 day IC3: 1 day IC4: 1 day IC5: 1 day NC1: 1 day NC2: 1 day								
<b>Estimated range of costing for the entire Response Plan</b>									
									\$ 153,868
									\$ 139,880

There is travel proposed in Activity 3.4 in the budget plan. The Response Plan is prepared when the world is facing the global pandemic of COVID-19. All the travels and face to face meetings will be planned and undertaken after a detailed assessment of the risks due to COVID 19 and following the related advisory by the national and local government from the country where the project is located and the country where the implementer is located. This must be assured through a letter of undertaking provided by the authority of the entity requesting for travel and meetings before it is conducted.

In the scenario of continued lockdown and travel restrictions, there are uncertainties of travelling by the international consultant. To have the minimal impact of this risk on the timeline and workplan, the situation has to be monitored closely and alternate approaches may be suggested in discussion with the Vanuatu's Government. In case the alternate approaches are to be adopted, the budget will be revised accordingly with revised plan, and the reasonable additional activities maybe suggested with the leftover budget. The revised plan will be agreed by CTCN and NDE before being adopted for implementation.

**5. Profile and experience of experts**

*Based on the required Human Resources identified in section 4 (Resources required and itemized budget) please provide a description of the required profile of all involved experts for the implementation of the CTCN Response Plan.*

<b>Experts required</b>	<b>Brief description of required profile</b>
<p><i>Please use the same titles for all experts as applied in section 4.</i></p> <p>IC 1 - (International) Policy Expert &amp; Team leader</p>	<p><i>Please provide a short description of expertise and experience needed (education, sectors of expertise, years of experience, country experience, language requirements, etc.).</i></p> <ul style="list-style-type: none"> <li>• Master's degree or higher in political science, economics or science in the area of energy</li> <li>• More than 8 years of responsible experience at a regional or national level of coordinating, implementing and evaluating energy efficiency related projects. Policy implementation projects are desired.</li> <li>• Experience in engaging stakeholders from Government, academics and the private sector in a developing country context</li> </ul>

<p>IC2 - (International) Appliances Expert</p>	<ul style="list-style-type: none"> <li>• Fluency in English required</li> <li>• Master's degree or higher in energy efficiency, energy policy, environmental studies, environmental policy, environmental economics, finance, economics or a similar related field</li> <li>• More than 8 years of experience in energy efficient appliances projects (refrigerators, freezers, air conditioners and lighting products), preferably in relation to government work.</li> <li>• At least 3 years of progressively responsible experience of collecting, compiling and reporting energy related industry data</li> <li>• Experience in projects which include the implementation of policies on energy efficiency, assessing and communicating the impacts of market assessments</li> <li>• Knowledge and experience in working with government and private sector in a developing country context</li> <li>• Fluency in English required</li> </ul>
<p>IC3 - (International) MV&amp;E Expert</p>	<ul style="list-style-type: none"> <li>• Master's degree or higher in political science, economics or science in the area of energy</li> <li>• More than 8 years of experience at a regional or national level in implementing an evaluating energy efficiency related projects.</li> <li>• More than 3 years of progressively responsible experience in designing and implementing MV&amp;E activities and product registration systems in the area of energy efficient appliances</li> <li>• Knowledge and experience in working with government and private sector in a developing country context</li> <li>• Experience with designing and delivering training the trainer programmes</li> <li>• Fluency in English required</li> </ul>
<p>IC4 - (International) Finance expert</p>	<ul style="list-style-type: none"> <li>• Bachelor's degree or higher in accounting, economics or finance and further studies in public service, building or infrastructure is desirable</li> <li>• More than 8 years of experience in financial mechanisms and procedures, preferably in relation to government work</li> <li>• Knowledge and experience in working with government and private sector</li> <li>• Knowledge and experience in designing and implementing loan applications and programmes as well as funding proposals</li> <li>• Fluency in English required</li> </ul>
<p>IC5 - (International) IT developer</p>	<ul style="list-style-type: none"> <li>• Bachelor's degree or higher in computer science, information technologies, engineering or a</li> </ul>

	<p>related field</p> <ul style="list-style-type: none"> <li>• More than 8 years of experience in designing and developing IT infrastructure and software in a government context</li> <li>• Knowledge and experience with database infrastructures, product registration systems or similar (frontend and backend development)</li> <li>• Fluency in English is required</li> </ul>
<p>NC1 - (Local) Policy expert</p>	<ul style="list-style-type: none"> <li>• Bachelor's degree or higher in political science, economics or science in the area of energy</li> <li>• More than 5 years of experience with energy efficiency related projects.</li> <li>• Knowledge and experience with the national energy efficiency regulations, particularly those introduced under the SPC PALS Project</li> <li>• Experience in engaging stakeholders from Government, academics and the private sector in Vanuatu</li> <li>• Fluency in English required</li> </ul>
<p>NC2 - (Local) Gender expert</p>	<ul style="list-style-type: none"> <li>• Bachelor's degree or higher in social science, political science or economics with a focus on gender</li> <li>• More than 5 years of experience integrating gender perspectives in energy policies and initiatives</li> <li>• Knowledge and experience of working in Vanuatu or similar geography</li> <li>• Fluency in English required</li> </ul>

#### **6. Intended contribution to impact over time**

*Please provide a brief description of the intended contribution to impact over time of the outcome and outputs provided by this technical assistance on resilience to climate change and/or carbon abatement. To the extent possible, please quantify the intended impact contribution, for example by indicated estimated number of people potentially impacted over time, GDP contribution of the focus sector, carbon emissions by the focus sector, etc. This intended contribution to impact is what will happen if the objective (as articulated in section 3) is met. Please ensure relevant complementarity with text in sections 7 to 12. (maximum 1250 characters including spaces)*

The energy sector is the primary source of GHG emissions in Vanuatu. In order to achieve an adoption of 100% renewable energy by 2030, 15% of energy savings must be achieved through the adoption of energy efficiency measures.

This technical assistance will contribute to the transition to energy efficient appliances (household refrigerators, freezers, air conditioners and lighting products) by making the current standards and labelling program for appliances more effective. Through the implementation of MV&E and a product registration system (output 4), Vanuatu will be able to increase the enforcement of and compliance with standards and labelling legislations. The identified financing mechanisms (output 5) will accelerate the purchase of energy efficient appliances through incentivization of consumers.

#### **7. Relevance to NDCs and other national priorities**

*Please identify relevance and contribution from the technical assistance to the Nationally Intended Contributions (NDC) and other relevant national prioritized efforts (TNAs, TAPs, NAPs, NAMAs, etc.). (maximum 2500 characters including spaces)*

Vanuatu has submitted mitigation actions as part of their NDC of which energy is a key sector (adoption of 100% renewable energy target for electricity generation by 2030). Achieving Vanuatu's mitigation targets requires energy efficiency measures to be pursued to enable 15% savings in the energy sector.

Furthermore, Vanuatu's Climate Change and Disaster Risk Reduction Policy 2016-2030 identifies low carbon development as one of the six strategic priorities to achieve resilient development.

Vanuatu's GCF Country Programme identified that the major source of CO<sub>2</sub> emissions was in the energy sector and recognized that one of the mitigation measures in their NDC is the implementation of energy efficiency measures across all sectors to enable 15% savings in the energy sector.

Under the environment goals and objectives of the National Sustainable Development Plan (2016-2030), it highlights as one of the objectives the promotion of renewable sources of energy and efficient use of energy.

#### **8. Linkages to relevant parallel on-going activities:**

*Please identify relevant previous and ongoing public and private sector initiatives, projects or programmes that the CTCN assistance will specifically build on and contribute to. To the extent possible, please add practical and operational details on the linkages between existing activities and the CTCN assistance. (maximum 2500 characters including spaces)*

The assistance of the SPC PALS Project (2012 – June 2019) allowed Vanuatu to adopt legislation

on labelling and standards. The law ensures that household refrigerators, freezers, air conditioners and lighting products that meet Australian and New Zealand standards such as AS/NZS 4474.2:2009, AS/NZS 4474.1:2007, AS/NZS 3823.2:2013, and AS/NZS 3823.1.1:2021 are imported and used in their countries. Vanuatu adopted their labelling and standards law in March 2017 and its subsidiary regulation in September 2017. The actual implementation or enforcement of the laws in Vanuatu is about three years.

Furthermore, the Department of Energy since 2019 has been conducting energy audits in government owned buildings and institutions. Targets are to audit 3 buildings in a year as indicated in the Vanuatu National Energy Road Map.

**9. Anticipated follow up activities after this technical assistance is completed:**

*Please describe the expected future use of the outputs and deliveries produced by this technical assistance, after the CTCN implementation is completed, towards contributing to the anticipated impacts over time articulated in section 6. For example, what organizations or stakeholders will use the outputs of the technical assistance after it is completed, for what purpose, at what scale and scope the outputs and deliveries will be applied, when and what will be the next steps undertaken, etc. (maximum 2500 characters including spaces)*

This technical assistance will establish the basis for a series of activities that will lead to an efficient and impactful standards and labelling programme for appliances. The future success and continuity of this initiative is underpinned by the following actions:

- (a) Full implementation and enforcement of the product registration system
- (b) Continuous formation of custom officials on standards & labelling, MV&E and the product registration system
- (c) Implementation of financing mechanisms
- (d) Dissemination of information on the relevance and benefits of energy efficient appliances amongst the general public
- (e) Continuous monitoring of the effectiveness and impact of the standards and labelling program

**10. Gender and co-benefits:**

<p><b>Imbedded in design of the activities:</b></p>	<p><i>A gender mainstreaming analysis is mandatory to include for all technical assistances. A gender expert will be assigned to carry out an assessment and evaluation regarding gender mainstreaming during the implementation of the TA.</i></p> <p><i>In addition, please describe all support to gender aspects, women’s equality and other co-benefits embedded into the Response Plan (please include a reference to the actual activities and outputs as described in section 3).</i></p> <p>A gender perspective will be integrated in the activities of this technical assistance transversally. The market assessment and policy review will include a gender perspective on benefits and challenges linked to the current standards and labelling programme with the objective to identify bottlenecks specifically faced by women. During the development of the MV&amp;E Plan and product registration system as well as the identification and development of financial mechanisms, gender groups will be consulted in order to identify</p>
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	and develop solutions that support a women's equality. Furthermore, a fair representation of women in all capacity building and training activities as well as decision making processes will be targeted.
Gender and co-benefits intended as result of the activities:	<p><i>Please describe all gender aspects, women's equality and other co-benefits expected as a result of the CTCN technical assistance.</i></p> <p>As a result, women will benefit from an improved knowledge on and access to energy efficient appliances through innovative and inclusive financial mechanisms. Furthermore, women in customs divisions will be trained on standards and appliances, MV&amp;E and the product registration system.</p>

**11. Main in-country stakeholders in implementation of the technical assistance activities:**

*Using the table below, please list and describe the role of in-country stakeholders, participants and beneficiaries who will be involved in or directly consulted during implementation of the assistance.*

<b>In country stakeholder</b>	<b>Role in implementation of the technical assistance</b>
National Designated Entity – Director General, Ministry of Climate Change	<i>Provide overall advice and oversight of the TA</i>
Project Proponent – Department of Energy	<i>Provide coordination role and support</i>
National Green Energy Fund (NGEF)	<i>NGEF is an independent public entity that consolidates existing financial resources including attracting and channelling new funding sources for sustainable electricity access and efficient use of energy in Vanuatu's off-grid areas. NGEF's role is to provide technical advice in the establishment of financial mechanisms for loans and subsidies for energy efficient appliances.</i>
Pacific Community (SPC) Georesources and Energy Programme	<i>Provide technical advice and support to the NDE and the Project Proponent</i>
Vanuatu Banks – National Bank of Vanuatu, ANZ Bank, BSP	<i>Provide technical advice in the feasibility study of appropriate financial mechanism(s) for financing energy efficient appliances</i>
Vanuatu Chamber of Commerce and Industry	<i>Provide coordination role with importers and traders of energy efficient appliances</i>
UNELCO	<i>Provide support in the electricity consumption of major energy users</i>

**12. SDG Contributions:**

*Instructions: Please complete the grey section below for a **maximum of three SDGs** that will be advanced through this TA. A complete list of SDGs and their targets is available here:*

<https://sustainabledevelopment.un.org/partnership/register/>.

<b>Goal</b>	<b>Sustainable Development Goal</b>	<b>Direct contribution from CTCN TA (1 sentence for top 1-3 SDGs)</b>
1	End poverty in all its forms everywhere	
2	End hunger, achieve food security and improved nutrition, and promote sustainable agriculture	
3	Ensure healthy lives and promote well-being for all at all ages	
4	Ensure inclusive and equitable quality education and promote life-long learning opportunities for all	

5	Achieve gender equality and empower all women and girls	A gender perspective is integrated transversally in this technical assistance, aiming to improve the access of women to energy efficient appliances.
6	Ensure availability and sustainable management of water and sanitation for all	
7	Ensure access to affordable, reliable, sustainable, and modern energy for all (consider adding targets for 7)	
	7.1 - By 2030, ensure universal access to affordable, reliable and modern energy services	This technical assistance aims to make energy efficient appliances more accessible to everyone through innovative financial mechanisms.
	7.2 - By 2030, increase substantially the share of renewable energy in the global energy mix	
	7.3 - By 2030, double the global rate of improvement in energy efficiency	This technical assistance aims to accelerate the adoption of energy efficient appliances through the implementation of effective MV&E and financial mechanisms.
	7.a - By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology	
	7.b - By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing States, and land-locked developing countries, in accordance with their respective programmes of support	
8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	
9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	
10	Reduce inequality within and among countries	
11	Make cities and human settlements inclusive, safe, resilient and sustainable	
12	Ensure sustainable consumption and production patterns	
13	Take urgent action to combat climate change and its impacts	<i>All TAs should indicate relevance to Goal 13 and at least one target below (13.1 to 13.b).</i>
	13.1 - Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries	
	13.2 - Integrate climate change measures into national policies, strategies and planning	
	13.3 - Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning	
	13.a - Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible	
	13.b - Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities	
14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	
15	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	
16	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	
17	Strengthen the means of implementation and revitalize the global partnership for sustainable development	

**13. Classification of technical assistance:**

*Please indicate primary type of technical assistance. Optional: If desired, indicate secondary type of technical assistance.*

<i>Please tick off the relevant boxes below</i>	<i>Primary</i>	<i>Secondary</i>
<input type="checkbox"/> 1. Decision-making tools and/or information provision	<input type="checkbox"/>	X
<input type="checkbox"/> 2. Sectoral roadmaps and strategies	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 3. Recommendations for law, policy and regulations	X	<input type="checkbox"/>
<input type="checkbox"/> 4. Financing facilitation	<input type="checkbox"/>	X
<input type="checkbox"/> 5. Private sector engagement and market creation	<input type="checkbox"/>	X
<input type="checkbox"/> 6. Research and development of technologies	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 7. Feasibility of technology options	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 8. Piloting and deployment of technologies in local conditions	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> 9. Technology identification and prioritisation	<input type="checkbox"/>	<input type="checkbox"/>

*Please note that all CTCN technical assistance contributes to strengthening the capacity of in country actors.*

#### **14. Monitoring and Evaluation process**

*Upon contracting of the implementing partners to implement this Response Plan, the lead implementer will produce a monitoring and evaluation plan for the technical assistance. The monitoring and evaluation plan must include specific, measurable, achievable, relevant, and time-bound indicators that will be used to monitor and evaluate the timeliness and appropriateness of the implementation. The CTCN Technology Manager responsible for the technical assistance will monitor the timeliness and appropriateness of the Response Plan implementation. Upon completion of all activities and outputs, evaluation forms will be completed by the (i) NDE about overall satisfaction level with the technical assistance service provided; (ii) the Lead Implementer about the knowledge and learning gained through delivery of technical assistance; and (iii) the CTCN Director about timeliness and appropriateness of the delivery of the activities and outputs.*

