



# GEF-6 PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Full-sized Project  
 TYPE OF TRUST FUND: GEF Trust Fund

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## PART I: PROJECT INFORMATION

|                             |   |   |                            |
|-----------------------------|---|---|----------------------------|
| Project Title:              | Renewable Energy Sector Project   |   |                            |
| Country(ies):               | Cook Islands  | GEF Project ID: <sup>1</sup>                    |                            |
| GEF Agency(ies):            | AsDB (select) (select)  | GEF Agency Project ID:                          | Loan 3193 / Grant 0415-COO |
| Other Executing Partner(s): | Ministry of Finance and Economic Management of the Government of the Cook Islands                                       | Submission Date:                                | 2015-03-30                 |
| GEF Focal Area(s):          | Climate Change  | Project Duration (Months)                       | 36                         |
| Integrated Approach Pilot   | IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/> | Corporate Program: SGP <input type="checkbox"/> |                            |
| Name of parent program:     | [if applicable]   | Agency Fee (\$)                                 | 392,128                    |

## A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES<sup>2</sup>

| Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs) | Trust Fund | (in \$)               |              |
|--|------------|-----------------------|--------------|
|  |            | GEF Project Financing | Co-financing |
| (select) CCM-1 Program 1 (select)  | GEFTF      | 4,127,668             | 24,280,000   |
| (select) (select) (select)   | (select)   |                       |              |
| (select) (select) (select)   | (select)   |                       |              |
| (select) (select) (select)   | (select)   |                       |              |
| (select) (select) (select)   | (select)   |                       |              |
| (select) (select) (select)   | (select)   |                       |              |
| (select) (select) (select)   | (select)   |                       |              |
| (select) (select) (select)   | (select)   |                       |              |
| (select) (select) (select)   | (select)   |                       |              |
| Total Project Cost   |            | 4,127,668             | 24,280,000   |

## B. INDICATIVE PROJECT DESCRIPTION SUMMARY

| Project Objective: To increase the Cook Islands' preparedness to meet the challenges of renewable energy scale-up by enhancing renewables-readiness. |                             |  |  |            |                       |              |
|--|-----------------------------|--|--|------------|-----------------------|--------------|
| Project Components   | Financing Type <sup>3</sup> | Project Outcomes   | Project Outputs  | Trust Fund | (in \$)               |              |
|  |                             |  |  |            | GEF Project Financing | Co-financing |
| 1. Solar photovoltaic (PV) module procurement & solar PV power system development and grid stability   | Inv                         | Increased renewables capacity & preparedness for continued scale-up<br><br>Increased grid stability for system to prepare to absorb higher levels of | Up to 6 solar PV power plants, with the total installed capacity of over 3.0MW including storage and energy management system (baseline)<br><br>Additional solar PV power plants on Rarotong and | GEFTF      | 4,127,668             | 23,020,000   |

<sup>1</sup> Project ID number will be assigned by GEFSEC and to be entered by Agency in subsequent document submissions.

<sup>2</sup> When completing Table A, refer to the excerpts on [GEF 6 Results Frameworks for GETF, LDCF and SCCF](#).

<sup>3</sup> Financing type can be either investment or technical assistance.

|   |          |  |  |          |           |            |
|---|----------|--|--|----------|-----------|------------|
|   |          | renewables   | Aitutaki, including storage system for larger shares of renewables;<br><br>Accelerated timeline for the southern group of islands to reach the 100% RES electricity target without negatively affecting the grid stability   |          |           |            |
| 2. Institutional strengthening & project management support | TA       | a) increased demand-side energy efficiency;<br>b) increased capacity;<br>and c) updated load demand, technology choice and investment planning | a) Development of a energy efficiency policy implementation plan;<br><br>b) Capacity building for renewable energy technology assessment and pricing;<br><br>c) Updating the Cook Islands Renewable Energy Chart Implementation Plan (CIRECIP)<br><br>d) Effective project monitoring and evaluation | GEFTF    | 0         | 1,260,000  |
|   | (select) |  |  | (select) |           |            |
|   | (select) |  |  | (select) |           |            |
|   | (select) |  |  | (select) |           |            |
|   | (select) |  |  | (select) |           |            |
|   | (select) |  |  | (select) |           |            |
|   | (select) |  |  | (select) |           |            |
|   | (select) |  |  | (select) |           |            |
|   | (select) |  |  | (select) |           |            |
|   | (select) |  |  | (select) |           |            |
|   |          |  | Subtotal   |          | 4,127,668 | 24,280,000 |
|   |          |  | Project Management Cost (PMC) <sup>4</sup>   | (select) |           |            |
|   |          |  | <b>Total Project Cost</b>  |          | 4,127,668 | 24,280,000 |

For multi-trust fund projects, provide the total amount of PMC in Table B, and indicate the split of PMC among the different trust funds here: ( )

#### C. INDICATIVE SOURCES OF **CO-FINANCING** FOR THE PROJECT BY NAME AND BY TYPE, IF AVAILABLE

| Sources of Co-financing | Name of Co-financier           | Type of Co-financing | Amount (\$) |
|-------------------------|--------------------------------|----------------------|-------------|
| GEF Agency              | Asian Development Bank         | Loans                | 11,190,000  |
| Others                  | European Commission            | Grants               | 7,260,000   |
| Recipient Government    | Government of the Cook Islands | In-kind              | 5,830,000   |
| (select)                |                                | (select)             |             |
| (select)                |                                | (select)             |             |

<sup>4</sup> For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

|                           |  |          |            |
|---------------------------|--|----------|------------|
| (select)                  |  | (select) |            |
| <b>Total Co-financing</b> |  |          | 24,280,000 |

**D. INDICATIVE TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS <sup>a)</sup>**

| GEF Agency                 | Trust Fund | Country/<br>Regional/ Global | Focal Area     | Programming of Funds   | (in \$)                   |                              |               |
|----------------------------|------------|------------------------------|----------------|------------------------|---------------------------|------------------------------|---------------|
|                            |            |                              |                |                        | GEF Project Financing (a) | Agency Fee (b) <sup>b)</sup> | Total (c)=a+b |
| AsDB                       | GEFTF      | Cook Islands                 | Climate Change | (select as applicable) | 4,127,668                 | 392,128                      | 4,519,796     |
| (select)                   | (select)   |                              | (select)       | (select as applicable) |                           |                              | 0             |
| (select)                   | (select)   |                              | (select)       | (select as applicable) |                           |                              | 0             |
| (select)                   | (select)   |                              | (select)       | (select as applicable) |                           |                              | 0             |
| (select)                   | (select)   |                              | (select)       | (select as applicable) |                           |                              | 0             |
| <b>Total GEF Resources</b> |            |                              |                |                        | 4,127,668                 | 392,128                      | 4,519,796     |

a) Refer to the [Fee Policy for GEF Partner Agencies](#).

**E. PROJECT PREPARATION GRANT (PPG)<sup>5</sup>**

Is Project Preparation Grant requested? Yes  No  If no, skip item E.

**PPG AMOUNT REQUESTED BY AGENCY(IES), TRUST FUND, COUNTRY(IES) AND THE PROGRAMMING OF FUNDS**

| Project Preparation Grant amount requested: \$136,615 |            |                             |                |                        | PPG Agency Fee: 13,014 |                             |                 |
|---|------------|-----------------------------|----------------|------------------------|------------------------|-----------------------------|-----------------|
| GEF Agency  | Trust Fund | Country/<br>Regional/Global | Focal Area     | Programming of Funds   | (in \$)                |                             |                 |
|   |            |                             |                |                        | PPG (a)                | Agency Fee <sup>6</sup> (b) | Total c = a + b |
| AsDB  | GEF TF     | Cook Islands                | Climate Change | (select as applicable) | 136,986                | 13,014                      | 150,000         |
| (select)  | (select)   |                             | (select)       | (select as applicable) |                        |                             | 0               |
| (select)  | (select)   |                             | (select)       | (select as applicable) |                        |                             | 0               |
| <b>Total PPG Amount</b>                               |            |                             |                |                        | <b>136,986</b>         | <b>13,014</b>               | <b>150,000</b>  |

<sup>5</sup> PPG requested amount is determined by the size of the GEF Project Financing (PF) as follows: Up to \$50k for PF up to \$2m (for MSP); up to \$100k for PF up to \$3m; \$150k for PF up to \$6m; \$200k for PF up to \$10m; and \$300k for PF above \$10m. On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

<sup>6</sup> PPG fee percentage follows the percentage of the Agency fee over the GEF Project Financing amount requested.

## F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS<sup>7</sup>

Provide the expected project targets as appropriate.

| Corporate Results   | Replenishment Targets  | Project Targets  |
|---|--|--|
| 1. Maintain globally significant biodiversity and the ecosystem goods and services that it provides to society  | Improved management of landscapes and seascapes covering 300 million hectares  | <i>Hectares</i>  |
| 2. Sustainable land management in production systems (agriculture, rangelands, and forest landscapes)   | 120 million hectares under sustainable land management   | <i>Hectares</i>  |
| 3. Promotion of collective management of transboundary water systems and implementation of the full range of policy, legal, and institutional reforms and investments contributing to sustainable use and maintenance of ecosystem services | Water-food-ecosystems security and conjunctive management of surface and groundwater in at least 10 freshwater basins; | <i>Number of freshwater basins</i>   |
|   | 20% of globally over-exploited fisheries (by volume) moved to more sustainable levels                                  | <i>Percent of fisheries, by volume</i>   |
| 4. Support to transformational shifts towards a low-emission and resilient development path   | 750 million tons of CO <sub>2e</sub> mitigated (include both direct and indirect)                                      | <i>366,246 metric tons</i><br><br><i>Note:<br/>183,115(Direct+Indirect bottom-up emission reductions)/<br/>366,246(Direct+Indirect top-down emission reductions)</i> |
| 5. Increase in phase-out, disposal and reduction of releases of POPs, ODS, mercury and other chemicals of global concern  | Disposal of 80,000 tons of POPs (PCB, obsolete pesticides)   | <i>metric tons</i>   |
|   | Reduction of 1000 tons of Mercury  | <i>metric tons</i>   |
|   | Phase-out of 303.44 tons of ODP (HCFC)   | <i>ODP tons</i>  |
| 6. Enhance capacity of countries to implement MEAs (multilateral environmental agreements) and mainstream into national and sub-national policy, planning financial and legal frameworks  | Development and sectoral planning frameworks integrate measurable targets drawn from the MEAs in at least 10 countries | <i>Number of Countries:</i>  |
|   | Functional environmental information systems are established to support decision-making in at least 10 countries       | <i>Number of Countries:</i>  |

## **PART II: PROJECT JUSTIFICATION**

1. *Project Description.* Briefly describe: 1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed; 2) the baseline scenario or any associated baseline projects, 3) the proposed alternative scenario, GEF focal area<sup>8</sup> strategies, with a brief description of expected outcomes and components of the project, 4) [incremental/additional cost reasoning](#) and expected contributions from the baseline, the GEFTF, LDCF, SCCF, and [co-financing](#); 5) [global environmental benefits](#) (GEFTF) and/or [adaptation benefits](#) (LDCF/SCCF); and 6) innovation, sustainability and potential for scaling up.

1) the global environmental and/or adaptation problems, root causes and barriers that need to be addressed:

The Cook Islands is a Pacific island country divided into two island groups, northern and southern, with an estimated total population of over 18,000 people. About 92% of the population lives in the southern group, which includes the main island of Rarotonga. Like many other island countries in the Pacific, the country faces dire and immediate

<sup>7</sup> Provide those indicator values in this table to the extent applicable to your proposed project. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the [GEF-6 Programming Directions](#), will be aggregated and reported during mid-term and at the conclusion of the replenishment period. There is no need to complete this table for climate adaptation projects financed solely through LDCF and/or SCCF.

<sup>8</sup> For biodiversity projects, in addition to explaining the project's consistency with the biodiversity focal area strategy, objectives and programs, please also describe which [Aichi Target\(s\)](#) the project will directly contribute to achieving.

consequences—from sea level rise and more frequent and stronger storms to the changing distribution of disease vectors—that are markedly disproportionate to its contribution to global greenhouse gas (GHG) emissions. Climate change can compromise their prosperity, stability, and security. The impacts on food production, land and marine resources use, as well as damage to infrastructure, water resources, and human health will result in economic losses that might cause large-scale migration, both internally and externally. Women and children especially are at greatest risk from these impacts.

Although their footprint to the global climate change impact is fairly marginal, the power sector of the country heavily relies on imported fossil fuels, particularly diesel. Diesel-powered generators constitute about 99% of the total electricity generating capacity. Changing diesel-based power generation to one based on renewable energy sources is expected to reduce diesel consumption for power generation by up to 95%, and will contribute to sustainable social and economic development. Lowering the Cook Islands' reliance on fossil fuels will also help free up government funds for other needs while improving national energy security and sustainability.

Like many other small island nations in the Pacific, the power generation from renewable energy resources has recently become a feasible solution because the up-front capital costs were high and there were high perceived and real technical risks. In addition, the cost of electricity storage technologies (e.g. battery, etc.) that are of the essence for grid stability was too high. For the past few years, some renewable energy technologies, especially wind power and solar PV, have become cost-effective compared to power generation using fossil fuels and the electricity storage industry has achieved the rapid cost reduction and technology improvement.

Therefore, transitioning to clean and sustainable energy systems is a key priority of the government, demonstrated by the adoption of 100% renewable energy targets in the power sector and the willingness to use the entire, flexible GEF-6 STAR allocation toward enhancing the Renewable Energy Sector Projects (RES Project) currently being funded by the Government of the Cook Islands, the Asian Development Bank (ADB) and the European Union (EU) (see Section C above).

2) the baseline scenario and associated baseline projects:

The total installed power generation capacity in the Cook Islands is over 11 megawatts (MW). Diesel-powered generators constitute about 99% of the total electricity generating capacity. Current electricity demand in the country is about 30.0 gigawatt-hours (GWh), and is forecast to grow modestly to 38.5 GWh by 2020. The southern group is the dominant load center, accounting for 98% of current and future load demand. In 2011, the government issued the Cook Islands Renewable Energy Chart, which sets a target of supplying 50% of inhabited islands with power from renewable sources by 2015, and 100% of the inhabited islands by 2020. It also launched the Cook Islands Renewable Energy Chart Implementation Plan (CIRECIP) in 2012, which incorporates a development schedule for electricity generation from renewable sources. Using 2012 as the baseline, 0% of the Cook Islands had converted the energy system from diesel fuel to renewable energy sources. New Zealand started solar photovoltaic (PV) power system development on the northern group of islands in 2012, and on Rarotonga in 2014. ADB, New Zealand, and EU have coordinated closely to support implementation of the CIRECIP.

Under CIRECIP, the government has decided to develop the RES project on the southern group of islands, which will construct up to six solar PV power plants with a total installed capacity of about 3 megawatts-peak (MWp) coupled with storage, and rehabilitate the existing distribution network. The RES project will be implemented in phases starting with the four islands of Mangaia, Mauke, Mitiaro and Atiu and to be followed by projects on Aitutaki and Rarotonga. It will also (i) provide project management support, including capacity building, for design, implementation, and operation and maintenance (O&M); and (ii) help facilitate private sector participation by setting appropriate off-take tariffs for power purchase agreements, enhance demand-side energy efficiency, and update the CIRECIP for further renewable energy deployment by 2020.

The government has requested a loan and a grant totalling \$18.45 million equivalent to help finance the RES project. Financing will comprise (i) a loan of NZ\$12.98 million (equivalent to US\$11.19 million) from ADB's ordinary capital resources, and (ii) a grant of €5.30 million from the EU. With the government's contribution of US\$5.83

million, the RES project cost is estimated at US\$ 24.28 million equivalent.

The Cook Islands' dependence on fossil fuels will be reduced under the RES project as it is expected to generate about 3.66 GWh of electricity. This will result in annual savings of 1.09 million liters of diesel consumption and annual reduction of 2,930 tons of carbon dioxide emission; the estimated lifetime of the project is 25 years. The outcomes of the project include increased energy security and sustainability in the Cook Islands. This RES project will assist the Cook Islands to fulfil its goal of delivering renewable energy to all of its islands by 2020. The project will also provide assistance to the government's Office of the Energy Commissioner and the Renewable Energy Development Division to develop their energy efficiency policy implementation plan. The goal is to have the plan developed by 2017. This includes capacity for the 10 staff in renewable energy technology assessments and tariff-setting in private-sector funded projects. Likewise, the CIRECIP will be updated/developed to include load demand, viable renewable energy technology choice and least-cost investing. The REC project complements ongoing support for solar power from the Government of New Zealand in the country's northern island group and on Rarotonga.

3) the proposed alternative scenario, with a brief description of expected outcomes and components of the project:

The proposed approach links to the GEF 6 Strategic Objective CCM-1: Promote the timely development, demonstration, and financing of low-carbon technologies and mitigation options. Additional grant funding of about \$4.12 million from GEF will increase the overall project investment to about \$28.40 million from the current \$24.28 million. The GEF grant would be used for enhancing the RES project, particularly the scopes of the second phase project sites on Aitutaki and Rarotonga. The RES project is expected to contribute 10% to RES electricity in the Cook Islands, raising the total to between 20 and 25%, which is still far lower than the government target of 100% renewable power generation by 2020. Moreover, in a power system with high penetration of renewables, sufficient reserve capacity, e.g., spinning reserve for the electricity supply is needed to compensate for a rapid, unexpected loss in generation resources in order to keep the system balanced. Electricity storage allows solar PV plants to supply reliable, predictable and dispatchable electricity at any time of the day. It also enables grid operators to schedule their dispatch economically, which consequently enhances the grid stability. Therefore, increasing system storage capacity, through flywheel and battery technologies for example, will be essential in achieving higher shares of renewable energy without negatively affecting the grid stability in the future.

The impact of the RES project including the grant from GEF will be increased energy security in an environmentally sustainable manner. The outcome will be increased access to a higher share of electricity generated by renewable energy sources. The investment costs of additional GEF grant include 1) additional solar PV generation and storage system procurement including the related energy management system, and 2) an EPC-based turnkey contract for solar PV system development.

This enhancement through the GEF funding will allow the Cook Islands to accelerate its timeline to meet 100% renewable energy goals for the southern island group. Furthermore, the Cook Islands will gain valuable experience that can be useful for other islands in the region that are sharing similar struggles on their trajectories to meeting renewable energy targets. Specifically, what will be gained is the operational know-how complemented by soft measure support to address the particular challenges associated with rapid, increasing shares of renewables in small developing island contexts. Through similar efforts by ADB and partners in the region, this project could be replicated on other islands in the Pacific facing similar challenges.

4) expected contributions from the baseline, GEF, co-financing:

The government has requested a loan and a grant totalling \$18.45 million equivalent to help finance the project. Financing will comprise (i) a loan of NZ\$12.98 million (equivalent to \$11.19 million) from ADB's ordinary capital resources, and (ii) a grant of €5.30 million from the EU, which will be administered by ADB. The loan will have a 22-year term, including a grace period of 3 years, straight-line repayment method, an annual interest rate determined in accordance with ADB's London interbank offered rate-based lending facility

The loan will be used for the procurement of equipment and materials, civil works, services, related transportation,

insurance, installation costs, and interest and commitment charges on the loan during construction for second phase projects on Aitutaki and Rarotonga. The loan will also be used to finance consulting services and contingencies. The grant will be used for the procurement of equipment and materials, civil works, related transportation, insurance, and installation costs for first phase projects on Mauke, Mitiaro, Mangaia and Atiu. The government will finance (US\$5.83 million) land acquisition, environmental and social monitoring, taxes and duties, and solar photovoltaic module procurement. Monitoring and evaluation systems will be established through the baseline project in order to meet ADB and GEF M&E requirements, including the preparation of the GEF CCM Tracking Tool, Annual Project Implementation Reports, Mid-term Review and Terminal Evaluation.

Procurement of goods, works, and services will be conducted through turnkey contracts. The turnkey contracts will include final design and engineering, supply and installation of equipment, construction works and commissioning, and an O&M knowledge transfer program.

The additional GEF grant will be used for 1) additional solar PV generation and storage system procurement including the related energy management system, and 2) an EPC-based turnkey contract for solar PV system development. Further assessment of the energy management and storage options will be undertaken as part of further project preparation. ADB will also undertake a rapid climate risk screening, and if necessary (for medium to high risk) a more detailed climate risk and vulnerability assessment will be undertaken (with ADB resources) to ensure that the design will incorporate adequate climate-resilience measures to protect the funded assets. The rapid assessment will be undertaken with "AWARE for Projects" - an online tool used by ADB project teams to screen projects for climate risks. The tool uses data from 16 general circulation models, as well as databases on a range of variables including temperature increase, wildfire, water availability, precipitation change, flooding, tropical storms and landslides.

5) global environmental benefits:

The RES project will result in annual savings of 1.09 million liters of diesel consumption and annual reduction of 2,930 tons of carbon dioxide emissions. The project lifespan is estimated at 25 years. The additional financing would help to ensure that GHG emissions reductions are realized throughout the lifespan of the project through climate resilience measures and contribute to an accelerated timeline in the Cook Islands' efforts to meet its goals for decarbonization in the power sector without negatively affecting the grid stability in the future.

The direct GHG emissions reductions from the RES project including additional financing from GEF are estimated at about 73,246 tonnes of CO<sub>2</sub> equivalent (CO<sub>2</sub>e) throughout the lifespan. This project does not include activities that would result in direct post-project greenhouse gas emission reductions. Using the GEF bottom-up methodology, indirect emission reductions attributable to the project are 109,869 tonnes of CO<sub>2</sub>e using a replication factor of 1.5. Using the GEF top-down methodology, indirect emission reductions attributable to the project are 293,000 tonnes of CO<sub>2</sub>e using a project causality factor of 40%.

6) innovation, sustainability and potential for scaling up:

Innovation- The RES project is ADB's first sector loan intervention for the energy sector of the Cook Islands. The sector loan approach is appropriate because it allows flexibility in subproject development, institutional strengthening, and capacity development to roll out renewable energy deployment on all islands. The current combination of loan and grant provide for the first phase of renewable energy projects to be completed on the islands of Mitiaro, Mauke, Mangaia and Atiu. In addition, the proposed sector loan approach can be replicated in other countries in the Pacific. Technically, the power outputs from the three phase 1 subprojects will be synchronized and integrated into the existing electricity grid using lithium-ion battery storage to make up for the intermittent nature of solar energy and ensure electricity supply even during the night. This will help make the electricity system sustainable, stable, and reliable, allowing it to supply clean electricity and meet more than 90% of electricity load demand. Moreover, the additional grant from GEF will allow the government and the local grid-operator to find the most suitable storage technologies for the large renewable energy penetration without negatively affecting the grid.

Sustainability –The project will provide institutional strengthening to the government for (i) developing the energy efficiency policy implementation plan including an energy audit and monitoring scheme to enhance demand-side energy efficiency practices for targeted major electricity consumer groups; (ii) developing the capacity to assess renewable energy technologies and set appropriate off-take tariffs for power purchase agreements in projects funded by the private sector; and (iii) updating the CIRECIP by reexamining the electricity load demand up to 2020, the renewable technology choices, and a least-cost investment plan. The consultants to be engaged under this component will be the project owner’s engineer (POE) team, who will also provide project management support for the responsible government agencies to help implement phase 1 and phase 2 subprojects in the southern islands. The turnkey contractor(s) of both phase 1 and 2 subprojects will provide specialized O&M knowledge transfer to ensure sustainable operation.

Scaling-up: With the GEF-6 STAR allocation funding, activities at the second phase sites can be enhanced through improved renewable energy generation and storage as well as improved climate-resilience measures. Allowing for innovative technical and operational combinations, such as improved management, multiple storage technologies and pv generation, provides the Cook Islands with the means to meet its goals of 100% renewable energy for the southern island group in a timely manner and also without affecting the grid stability. Under the project scopes, the feasible renewable technology options to achieve the national goals of 100% renewable energy for the southern island group will be assessed, particularly the role of solar PV

Likewise, many small islands in the Pacific are facing similar technical questions related to the transition from fossil fuels to renewables. In addition, the GEF funding may allow testing, for example of load/generation shifting and/or storage technologies, to find the most suitable and cost-effective options for the country and other similarly placed countries in the Pacific.

2. *Stakeholders.* Will project design include the participation of relevant stakeholders from [civil society](#) and [indigenous people](#)? (yes  /no  ) If yes, identify key stakeholders and briefly describe how they will be engaged in project design/preparation.

The project’s executing agency is the Ministry of Finance and Economic Management (MFEM). The implementing agencies are the Renewable Energy Development Division (REDD) and the Rarotonga Power Authority (TAU). Through technical assistance provided in the project preparation, consultations were held with women community groups, landowners, island officials, and representatives from key stakeholders of organizations including REDD, the Office of the Energy Commissioner (OEC), and TAU. The social safeguards specialist, one of the POE consultants, will ensure ongoing consultation with these stakeholders during project implementation, and develop a stakeholder consultation, participation, and communication plan. Through consultation, these stakeholders will provide inputs to the Project Management Unit (PMU) on implementation activities. The PMU will: 1) monitor and ensure participation by poor households and women in consultation activities; 2) contribute to gender awareness; 3) encourage targeted group participation in Project related contracts; and 4) collect poor household and gender-related data for monitoring and evaluation purposes. The population in the project area comprises the mainstream population of the Cook Islands. The project is not expected to impact any distinct and vulnerable group of indigenous peoples as defined in ADB protocol.

During the project preparatory technical assistance, consultations were held with women community groups, landowners, island officials, and representatives from key stakeholders of organizations including REDD, OEC, CIIC, and TAU. The social safeguards specialist (one of the POE) will ensure ongoing consultation with these stakeholders during project implementation, and develop a stakeholder consultation, participation, and communication plan. These stakeholders will provide inputs to the PMU on implementation activities through these consultations. The PMU will also monitor and ensure the poor household’s and the women’s participation in consultation activities; provision of gender awareness to target groups; encouraging the poor household and the women participation in Project related contracts; and collection of the poor household and the gender related data for monitoring and evaluation purposes.

The population in the project area comprises the mainstream population of the Cook Islands. The project is not expected to affect any distinct and vulnerable group of indigenous peoples as defined under ADB’s Safeguard Policy



Statement. The project team will consider engaging with a Civil Society Organization, if necessary, in the further project design making process.

3. *Gender Considerations.* Are [gender considerations](#) taken into account? (yes  /no  ). If yes, briefly describe how gender considerations will be mainstreamed into project preparation, taken into account the differences, needs, roles and priorities of men and women.

According to the 2012 Pacific Regional Millennium Development Goals tracking report by the Pacific Islands Forum Secretariat, poverty is not an issue for the Cook Islands. However, there is an issue over income inequality between Rarotonga and outer islands. A high per capita GDP is a result of expatriate residents and a tourist-based economy in Rarotonga. However, it conceals the subsistence lifestyle of the Pa Enua population, where development is lagging. GDP per capita is estimated at about \$10,000, and Cook Islanders have access to New Zealand to access its jobs, markets and welfare system. There is good access to education and health services, safe drinking water, and improved sanitation.

Through technical assistance provided in the project preparation, consultations were held with women community groups, landowners, island officials, and representatives from key stakeholders of organizations including REDD, the Office of the Energy Commissioner, and TAU. The social safeguards specialist, one of the project owner's engineer consultants, will ensure ongoing consultation with these stakeholders during project implementation, and develop a stakeholder consultation, participation, and communication plan. Through consultation, these stakeholders will provide inputs to the PMU on implementation activities. The PMU will: 1) monitor and ensure participation by poor households and women in consultation activities; 2) contribute to gender awareness; 3) encourage targeted group participation in Project related contracts; and 4) collect poor household and gender-related data for monitoring and evaluation purposes.

Gender considerations will be further taken into account during project preparation consistent with ADB's Policy on Gender and Development and ADB's Guidelines on Gender Mainstreaming and Categorization. The process will involve the use of "Energy Sector gender checklist", which have been prepared to help ADB staff, project partners and consultants address gender issues in the design of projects across different sectors.

4 *Risks.* Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable).

Risks identified in the early stages of the project included: Policy actions and development partner support are inadequate to implement the CIRECIP; Implementation can be delayed due to delays in Phase 2 subprojects preparation, land acquisition, and procurement; Support, performance, and coordination at REDD and TAU are weak/inadequate. Extreme weather events are an on-going and increasing risk for islands in the Pacific.

Mitigation actions include: establishment of a project steering committee consisting of relevant Ministry, REDD and TAU representatives and establishment within TAU and REDD of a project management unit to handle the day-to-day running of the projects.

The GEF funding of second phase projects will help de-risk the entire project by furthering the CIRECIP goals and financing the next critical phase of renewables development. Through the RES project, ADB is offering ongoing capacity support to REDD and TAU. A rapid climate risk assessment will be undertaken by ADB and a more detailed climate risk and vulnerability assessment will be undertaken by ADB if needed. This will consider potential risks from extreme weather, storm surge and floods.

5. *Coordination.* Outline the coordination with other relevant GEF-financed and other initiatives.

The project is coordinated with other initiatives including the regional goals of the GEF Secretariat, ADB and EU's activities in the Pacific and domestic targets for the Cook Islands. Lessons learned from renewable energy projects, financed by the New Zealand government, in the northern island group will be considered in the design and implementation of the RES project.

As there were no GEF-5 renewable energy projects in the Pacific, the project team will coordinate and/or draw lessons learned from the following ongoing GEF-4 funded renewable energy projects in the Pacific.

UNDP: Marshall Islands- Action for the Development of Marshall Islands Renewable Energies (ADMIRE)  
 World Bank: Kiribati- PAS: Grid Connected Solar PV Central Station Project  
 World Bank: Papua New Guinea- PAS: PNG Energy Sector Development Project  
 World Bank: Solomon Islands- SB Development of Community-based Renewable Energy Mini-Grids

6. *Consistency with National Priorities.* Is the project consistent with the National strategies and plans or reports and assessments under relevant conventions? (yes  /no  ). If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.

The Government of the Cook Islands has set targets related to converting the islands from diesel to 100% renewable energy sources by 2020. The group of four southern islands is to be converted by 2018. The Cook Islands has formally submitted a Nationally Appropriate Mitigation Action under the United Nations Framework Convention on Climate Change for supporting implementation of 100% renewable electricity by 2020. Moreover, according to the Cooks Islands 2nd National Communication (2012) under the United Nations Framework Convention for Climate Change, the government has set the following main energy sector goals:

- o Rationalise the management of the energy sector by developing and implementing Cook Islands Energy Strategic Plan for all islands.
- o Develop the Cook Islands Energy Strategic Plan consistent with strategies outlined in the Pacific Islands Framework for Regional Action on Climate Change, Climate Variability and Sea level Rise, 2006–2015, and, the Pacific Regional Energy Policy.
- o Implement priorities related to energy in the Preventive Infrastructure Master Plan.
- o Decreasing energy consumption by 20% per capita by increasing efficiency in energy use through the adoption of new technologies and energy conservation practices by 2012.
- o Reducing the reliance on high GHG based fossil fuel by identifying and adopting technically feasible and financial viable alternative energy sources.

7. *Knowledge Management.* Outline the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

This project can serve as a model and lessons can be disseminated through networks such as Small Islands Developing States (SIDS Dock) and the Alliance Of Small Island States (AOSIS). The GEF Secretariat and other international organizations, such as the International Renewable Energy Agency, have activities targeted at renewable energy projects on Pacific islands. ADB may share project documentation and data as well as lessons through knowledge projects including ADB's project impact story and the Asian Clean Energy Forum. In addition, as the part of the RES project scopes, some capacity building workshops on tariff setting and creating the enabling environment for the private sector investment in the Pacific will be held. Finally, through the RES project including the GEF funding may allow the Government of the Cook Islands, especially the project management unit to enhance the capacity on managing the integration of large renewable energy penetration to the gri

**PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)**

**A. RECORD OF ENDORSEMENT<sup>9</sup> OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):**  
 (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this template. For SGP, use this [SGP OFP endorsement letter](#)).

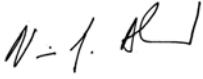
| NAME         | POSITION | MINISTRY             | DATE (MM/dd/yyyy) |
|--------------|----------|----------------------|-------------------|
| Vaitoti Tupa | Director | NATIONAL ENVIRONMENT | 11/19/2013        |

<sup>9</sup> For regional and/or global projects in which participating countries are identified, OFP endorsement letters from these countries are required even though there may not be a STAR allocation associated with the project.

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**B. GEF AGENCY(IES) CERTIFICATION**

**This request has been prepared in accordance with GEF policies<sup>10</sup> and procedures and meets the GEF criteria for project identification and preparation under GEF-6.**

| <b>Agency Coordinator,<br/>Agency name</b>   | <b>Signature</b>  | <b>Date<br/>(MM/dd/yyyy)</b> | <b>Project Contact<br/>Person</b>    | <b>Telephone</b> | <b>Email</b>  |
|--|---|------------------------------|--------------------------------------|------------------|---------------|
| Nessim J. Ahmad,<br>Deputy Director General,<br>Regional and Sustainable<br>Development<br>Department, Asian<br>Development Bank |  | 03/30/2015                   | Woo Yul Lee,<br>Energy<br>Specialist | +632 683<br>1803 | wylee@adb.org |
|  |   |                              |                                      |                  |               |
|  |   |                              |                                      |                  |               |

**C. ADDITIONAL GEF PROJECT AGENCY CERTIFICATION (APPLICABLE ONLY TO NEWLY ACCREDITED GEF PROJECT AGENCIES)**

For newly accredited GEF Project Agencies, please download and fill up the required [GEF Project Agency Certification of Ceiling Information Template](#) to be attached as an annex to the PIF.

<sup>10</sup> GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF