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CONTRACTOR’S FINAL PROGRESS REPORT

CONTRACT NO. 02/054

UNIDO Project No. GF/CUB/01/002
GENERATION AND DELIVERY OF RENEWABLE ENERGY BASIC MODERN ENERGY SERVICES IN CUBA – ISLA DE LA JUVENTUD

(GEF/UNIDO Project GF/CUB/01/002)

FINAL PROJECT PROGRESS REPORT - October 2002-May 2003

In brief, major activities undertaken and completed till the end of May 2003 are as follows:

- Strategy to ensure financial sustainability of the project and co-financing linkages developed and integrated.

- Policy and institutional issues analyzed and integrated into the project.

- Assist UNIDO in developing draft Project Brief including full incremental cost analysis and co-financing.
IMPORTANT ACTIVITIES DETAILS

- Strategy to ensure financial sustainability of the project and co-financing linkages developed and integrated.

The up-front capital costs of proposed alternative is higher than the respective baseline projects, i.e. fuel oil based thermal power plant of equivalent capacity. A fund to provide high upfront costs has been proposed for support through GEF funds.

Agreements will be reached with the project developers to create a Contingent Fund to ensure long term replicability and to share risks with investors and an Incentive Fund on successful performance of the project. As it is unlikely that the project activities would take place in the absence of UNIDO and GEF support, the project can largely be considered to be incremental.

The contingent fund will add up to US$ 962,231 and it will consist on a reimbursable fund for a pipeline of biomass and wind projects, for risk mitigation and for pre-feasibility and feasibility studies for projects in the pipeline. This contribution, that is an incremental cost, will be provided by the GEF.

The Incentive Fund will allocate a maximum of US$ 1,596,000 spread over the payback period of each business unit, based on performance estimated during the PDF-B phase. This contribution, that is also an incremental cost, will be provided by the GEF.

The total initial investment for implementing an alternative option, based on biomass materials and wind resources, works out to US$ 13,991,000. The difference being the incremental cost for implementing this project is estimated at US$ 12,189,000. The incremental cost component related to Technical Assistance and Capacity Building will account for a large part of the incremental
costs for removal of general barriers. This additional incremental cost been estimated at US$ 3,300,000.

The GEF is only being asked to supply US$ 2,640,000 for the Technical Assistance and Capacity Building component. UNIDO, the Government of Cuba and co-financing will provide the rest.

**Brief cost summary**

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEF</td>
<td>0,00</td>
<td>0,00%</td>
</tr>
<tr>
<td>Cuban Government contribution</td>
<td>1,07</td>
<td>10,00%</td>
</tr>
<tr>
<td>Private Investment</td>
<td>9,62</td>
<td>90,00%</td>
</tr>
<tr>
<td>Other sources</td>
<td>0,00</td>
<td>0,00%</td>
</tr>
<tr>
<td>Total Project Investment Funds</td>
<td>10,69</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEF</td>
<td>2,635</td>
<td>79,85%</td>
</tr>
<tr>
<td>Cuban Government contribution</td>
<td>0,495</td>
<td>15,00%</td>
</tr>
<tr>
<td>Private Investment</td>
<td>0,00</td>
<td>0,00%</td>
</tr>
<tr>
<td>Other sources</td>
<td>0,17</td>
<td>5,15%</td>
</tr>
<tr>
<td>Total technical assistant</td>
<td>3,3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amount needed</th>
<th>GEF contribution</th>
<th>Incremental cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Investment Fund</td>
<td>10,69</td>
<td>0,96</td>
</tr>
<tr>
<td>Technical Assistant</td>
<td>3,30</td>
<td>2,64</td>
</tr>
<tr>
<td>Incentive Fund</td>
<td>1,24</td>
<td>1,24</td>
</tr>
<tr>
<td>Total</td>
<td>15,23</td>
<td>4,84</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Initial investment needed</th>
<th>Contingent fund contribution</th>
<th>Percentage</th>
<th>Private Investment needed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomass production</td>
<td>792.000</td>
<td>79.200</td>
<td>10%</td>
<td>712.800</td>
</tr>
<tr>
<td>Gas for power production</td>
<td>2.835.000</td>
<td>283.500</td>
<td>10%</td>
<td>2.551.500</td>
</tr>
<tr>
<td>Gas for heat production</td>
<td>865.313</td>
<td>86.531</td>
<td>10%</td>
<td>778.781</td>
</tr>
<tr>
<td>Electricity Production</td>
<td>3.465.000</td>
<td>346.500</td>
<td>10%</td>
<td>3.118.500</td>
</tr>
<tr>
<td>Wind Energy</td>
<td>1.665.000</td>
<td>166.500</td>
<td>10%</td>
<td>1.498.500</td>
</tr>
<tr>
<td>Total</td>
<td>9.622.313</td>
<td>962.231</td>
<td>10%</td>
<td>8.660.081</td>
</tr>
</tbody>
</table>
Kunkel Investment and SANFI have expressed their position of investing in all components comprising the project. Co-financing linkages have also been taken into account during this period. So far four international company have expressed interest in investing in the project:

- SANFI a Cuban enterprise which is budgeted by investors coming from Chile and Canada.
- Lahmeyer International, a German Engineering Enterprise. expressed its position of seeking up funding and investing in the project, provided the project feasibility studies being backed up by recognized foreign Energy Advisor Company.
- KUNKEL INVESTMENT an investor based in Germany.
- Progesam an investor based in Italy.

We have already received letters of intent from Lahmeyer International and Kunkel Investment. SANFI will be sending its letter by the end of May month after the company stakeholder meeting. Progesam has made offers pending on further thoughts.

Kunkel Investment and SANFI have expressed their position of investing in all components comprising the project.
• Policy and institutional issues analyzed and integrated into the project.

Policy and institutional issues have been clearly set up in project documents. GEPROP will assure the functioning of such interrelation among those involved in project development.

Co-financers ultimate identification will allow precising the best institutional arrangement for successful project implementation.

• Assist UNIDO in developing draft Project Brief including full incremental cost analysis and co-financing

During the whole period this brief document is reporting on, project team has been in close contact with UNIDO officials for developing the Draft Project Brief including cost analysis and co-financing. For working out final document for being submitted to GEF approval, nine formerly document version were developed.

Note: According to Terms of Reference for Contracting Agency defined in project contract (CONTRACT NO. 02/054) there are eight outputs of specifics activities undertaken by agency mentioned above. Outputs from (a) to (d) have already been completed and accepted. They were also included in previous project progress reports. Outputs from (e) to (g) are presented in this final progress report. Output (h) is pending on project brief approval by GEF.
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UNIDO                      Florentino Chacon
MINVEC                     Dolores Marreros
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