

**Efficient Energy Demand Management in Non-Interconnected Zones - San Andres,
Providencia and Santa Catalina Archipelago Pilot Program
Responses to Questions from CTF TFC Members**

Prepared by the Inter-American Development Bank (IDB)

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We would like to thank the government of the United Kingdom for their questions. Please find below our responses.

First set of questions from the UK

Q: Is it possible to provide more detail on how the % emissions reductions were calculated? e.g. what emission factor was used for the baseline? What proportion of GHG savings come from energy efficiency, and what proportion come from investment in Solar?

A: The emission factor for the baseline is 0.67 kg CO₂/kWh, which is used by the Energy and Mining Planning Unit for diesel generation. We estimate that 75.7% of the emission reductions will come from energy efficiency, and 24.3% from solar generation.

Q: Is there a potential for there to be a rebound effect from the energy efficiency measures, where more energy is consumed when it is cheaper? We think that it's important to consider this, and potentially should be included in the GHG reduction calculations.

A: The program is expected to reduce total energy consumption at the final user level and hence the electricity bill. In order to reduce the risk of a rebound effect in response to the reduced total expenditure on electricity, a strong education campaign with an emphasis on the benefits of EE will be implemented under the program. In addition, the program will not allow beneficiaries to substitute their current equipment with equipment with a higher capacity.

Q: Do you have any information on whether there is research to suggest that consumers would definitely be willing to participate in the program? (Perhaps there could be a risk that consumers would be unwilling to take the time registering/purchasing and disposing of appliances, if the savings in energy individually are not considered to be sufficiently large)

A: We have not carried out a formal survey to provide information about the willingness of consumers to participate. However, taking into consideration the local habits and preferences, the program has been structured to provide an attractive incentive to generate interest. Moreover, a communication and social management program will be implemented to promote the program and thus mitigate the risk of low participation.

Q: It is noted that the programme will create employment. However, these are not captured in the Results Matrix to be quantified and tracked. We think the number

of jobs created could be significant particularly related to the Energy Efficiency elements of the programme, and think therefore that this should be included in the Results Matrix. Is this something that the project team is happy to include? If not, could you provide a reason behind the decision?

A: This is a very good suggestion. There is a need for qualified technicians for the installation of the equipment and appliances, as well as for the implementation of best practices of energy efficiency (including construction, technical installation and maintenance). This will require training the current workforce and additional workforce. Although there is no estimate on the number of jobs to be created at this time, the team will work on an estimate, including, if possible, a gender breakdown. The indicators will be included in the results matrix before final approval by the IDB, and will be reported to the CTF.

Q: We'd be interested to know how the number of target users for the SAPSC archipelago component was estimated? 3,000 users in the first five years seems somewhat low given the size of the investment?

A: The net investment for the first five years is USD 7.1 million from the credit plus 0.6 million generated by the capital collected from users during these years. The total of USD 7.7 million is divided by the average cost of an EE package, estimated at US\$2,475 per user. Given the demand segmentation considered in the program, this average investment covers the market cost of air conditioning, refrigerator, lights and/or solar installation for the Archipelago. This figure results in 3,120 total estimated users in the first round of operations within the first 5 years. The fund operation rules will allow relending proceeds from the first round repayments to reach a total of 8,510 users at the end of ten years, which represents more than 42% of total current users in the island.

Q: Could you please provide further details on the how CTF money will fund additional activities which will not already be covered by the Government's own plans?

A: One fundamental part of the program to be covered by CTF funds is the incremental costs of disposing the replaced equipment in an adequate manner. This is considering that the program is taking place in islands where there is currently no installed capacity for disassembling and compacting equipment before shipping to the continent for final disposal. All phases of disassembling, packaging, storing, shipping, and final disposal will be done according to internationally recognized standards. Costs take into account the potential reutilization of some reusable materials. In addition, this is the first pilot project of this kind. Without CTF funds this pilot would not be implemented.

Second set of questions from the UK

Q: Could you please provide some more information on how you think this proposal is transformational?

A: Given the particularities of the SAPSC Archipelago, including its remote location and the low-income of its inhabitants, we don't foresee the market for EE technologies reaching a significant scale without public support. Therefore the transformation will be achieved in terms of (i) the Government scaling up EE implementation once the effectiveness of the model is demonstrated; (ii) public demand for EE technologies increasing due to higher awareness, and (iii) the supply of EE services growing, on account of capacity building activities.

Q: What consideration been given to the lifetime of the mechanism beyond the five years of CTF funding? The project document says FENOGE may continue for a further 5 years, but how will sustainability be ensured if that does not happen?

A: FENOGE will continue operating after the Program's 5-year disbursement period, and it is expected to continue beyond the 10-year execution period. The execution structure, responsibilities, targets, and duration, among other things, will be fully detailed in the Operational Manual. The loan contract will include a clause to ensure that the repayments received will be used as established in the Operational Manual during the execution period.

Q: How could this project (if successful) be used to encourage the Colombian government to reduce the level of energy subsidies as a greater incentive to energy efficiency?

A: At least in the short or medium term, it is unlikely that the Government will reduce the subsidies that it provides to the ZNI, due to the poor economic and social conditions of the population of these areas. However, the Program will result in a reduction of electricity generation costs, and hence of subsidies (USD 12.4 million over the 10 years of program execution). This reduction will provide an incentive for the Government to increase its investments in EE and RE in SAPSC and other ZNI of the country, and thus further reduce the subsidy amount.

Q: Could you elaborate on plans to capture and share the learning from the project?

A: The Program has a Monitoring and Evaluation Plan that includes a final evaluation to be started six months before the last disbursement. This evaluation will focus on analyzing the experience of the pilot project in the SAPSC Archipelago, as a source of information on lessons learned to be considered in subsequent uses of the resources of FENOGE or of other funds aimed at promoting EE and RE interventions in the country. The results from the final evaluation will be available to the public through the IDB and CIF websites.