

CLIMATE INVESTMENT FUNDS

July 28, 2016

**[APPROVE BY MAIL]: NICARAGUA: GEOTHERMAL EXPLORATION AND TRANSMISSION
IMPROVEMENT PROGRAM UNDER THE PINIC (IDBG)**

**UPDATED RESPONSES FROM IDBG TO THE COMMENTS RECEIVED FROM MEMBERS AND
OBSERVERS OF THE CTF TRUST FUND COMMITTEE AND THE SREP SUB-COMMITTEE**

Nicaragua Geothermal Exploration and Transmission Improvement Program under the PINIC

Updated Responses from IDBG to the Comments Received from Members and Observers of the CTF Trust Fund Committee and the SREP Sub-Committee

We would like to thank the governments of the Netherlands, Switzerland, Germany, the United Kingdom, the United States of America, and Norway, as well as Dennis Mairena and Centro Humboldt (SREP observers) for their comments. These comments were circulated through either the SREP Sub-Committee, or the CTF Trust Fund Committee. For the sake of transparency, we have opted to combine in this document both the SREP and CTF comments and responses.

Please note that the original proposal submitted by the IDBG considered a reallocation of resources within the SREP Investment Plan for Nicaragua (PINIC): It was proposed to reallocate USD 4.5 million from Component 2 (*Integral Development of Rural Areas*) to Component 1 (*Development of Nicaragua's Geothermal Energy*).

Some SREP Sub-Committee members raised their concerns about this reallocation (see comments below). In our original responses we had explained the rationale for this reallocation (namely, in few words, making a more efficient use of available resources from CIF and other sources, without reducing the scope of the rural energy component).

However, the IDB and the Government of Nicaragua (GoN) have now decided to forego the reallocation request. The reduction in SREP finance has been compensated by an increase in the local contribution, as well as by a slight increase in the IDB GLM loan. Therefore the total amount of funding, and the expected results, remain unchanged

The allocation for the *Integral Development of Rural Areas* Component remains at the level proposed in the Investment Plan, namely, USD 7.5 million of SREP grant resources. This component will be submitted by the IDB to the SREP Subcommittee for approval in calendar year 2017.

We have therefore edited our responses to the comments related to the reallocation, reflecting the change in plans.

The comments from members of the CTF Trust Fund Committee and the SREP Sub-Committee are presented in this document in the order in which they were received.

Comments from the Netherlands (SREP), July 13th

Part 1. Substantial shift of grant budget from rural energy access to geothermal

C: At the subcommittee meeting in Oaxaca the Swedish/Dutch chair raised the concern that grant budget would be shifted in Nicaragua from the energy access component to the geothermal component. From the responses by the MDBs at the meeting we heard that this was not the case. Now, just a few weeks later this proposal seems to actually shift 4,5 million dollars grant funding from rural energy

access to geothermal. This creates confusion on our side. Can we please get clarification about this apparent miscommunication?

R: We are no longer requesting this reallocation.

C: As other subcommittee members, we have stressed the importance of balance between generation projects and energy access projects. In this context it is remarkable that the proposal includes such a drastic shift from rural energy to geothermal. The document is not clear about why this would be necessary and why the needed grant budget could not be found in for instance the allocation for the IBRD component for geothermal. Can this be clarified?

R: We are no longer requesting this reallocation.

C: From the investment plan that the subcommittee approved only a year ago, we understood that rural energy access is a major challenge for Nicaragua. How does this relate to the proposal to more than reduce the SREP budget for the rural energy component by 60%? Can and will the remaining budget still be used in a meaningful way to reach the intended energy access results of the investment plan, or will the results of the rural energy component be reduced substantially ?

R: We are no longer requesting this reallocation.

C: Has the modification of the investment planning been discussed with and accepted by the stakeholders in Nicaragua?

R: We are no longer requesting this reallocation.

C: In the most recent SREP portfolio review, the IDB components on geothermal and rural energy were presented as integrated project “Geothermal Development and Integral Development of Rural Areas Project”. Now the presented proposal seems to only cover the geothermal component. Is that correct? Can we get a more detailed update on the preparation of the rural energy component?

R: We have decided to separate this project in two different operations, due to the time constraints associated to the validity period of the IDB’s Grant Leverage Mechanism (GLM), which allows an opportunity to leverage the geothermal development component. At the design level, the rural energy access component has received the same level of attention. We foresee that, after an adequate planning period, this operation will be approved during the first half of 2017.

Part 2. Confidentiality of the proposal

C: The proposal document title mentions that it would be confidential. Is this correct?

R: Yes, this is correct. The versions of the proposals circulated to the CTF Trust-Fund Committee and the SREP Sub-Committee are confidential.

C: If so please clarify why the document should be confidential? We feel transparency of SREP project documents is important.

R: According to IDB policies, only when an operation is approved by the Board we can make the full project document and annexes publicly available. As you know, we first secure CIF

Funds through the approval of the Trust Fund Committee / Sub-Committee, and we then present the operation to the Board.

In order to comply both with our policies and with CIF publication requirements, we prepare two different versions: One public version (that is published on the CIF website), and a confidential version (delivered to the Trust Fund Committee/Sub-Committee). The public version, which always includes the key information about the operation, allows observers to send comments and questions—something that we always welcome.

Comments from the Netherlands (SREP), July 18th

Regarding the rural energy component, we understand that the new funding line has caused less SREP financing to be needed to accomplish the (unchanged) result objectives of the IP. It would be helpful to get an update of the IP financing plan (tables 11 and 12 of the IP) in which this is confirmed and this new financing plan is reflected.

R: We are no longer requesting this reallocation.

Comments from Switzerland (SREP), July 19th

Part 1. SREP funding

C: Switzerland shares the concerns of Netherlands about the shift of \$4.5 million grant resources from component 2 of the Investment Plan (Integral development of rural areas) to component 1. While \$4.5 million is “just” 15% of the overall SREP allocation to Nicaragua, it represents a decrease for component 2 of 60%, which is significant. Besides, we are not aware of a rule allowing a reallocation of resources within SREP without consultation of the Subcommittee. We thus have the following questions:

C (1a): (To CIF AU): is there a rule allowing a reallocation of SREP contribution within an investment plan of 15% without the need to consult the SREP Subcommittee?

A (CIF AU): There was a discussion under the Strategic Climate Fund on this issue in October 2011; see Document SCF/TFC.8/4 “Pipeline Management of the Targeted Programs under the Strategic Climate Fund”, which was approved by the SCF Trust Fund Committee. According to this document (para. 19), regarding SREP:

“... any change to the investment plan deemed to be strategic by the country or the MDBs should be presented to the relevant Sub-Committee for review and endorsement. In particular, guidance and endorsement from the Sub-Committee will be sought, through a decision by mail, for the following types of change to an investment plan: ... adding, dropping, or shifting resources between ... projects that adopt different renewable energy technologies by more than 15 percent of the funding envelope of the investment plan or by more than US\$ 5 million; whichever is lower ...”

C (1b): To what extent have representatives of the concerned rural areas (i.e. the potential beneficiaries from component 2 of the IP) been informed about this

change and consulted? What were their reactions? Please make the log of these consultations and reactions available to the Subcommittee.

R: We are no longer requesting this reallocation of resources.

C (1c): We also noticed that besides the said reallocation from component 2 of the IP, there has been a reallocation within component 1, more precisely from resource identification (of additional sites) to resource confirmation. In addition, a substantial contribution is sought from the CTF, which was not foreseen in the IP. Please justify why so much additional funding from the CIFs is suddenly needed for this program.

R: The assessment of the technical, economic, environmental and social aspects carried out during the design stage provided the framework for the adjustments. After assessing the pre-feasibility phase for the three initial sites—Cosigüina, Mombacho, and Apoyo—an order of merit for the following phase could be established. Since a previous program had already financed the complete resource identification phase for the most attractive site—Cosigüina—, SREP funding was focused on the resource confirmation phase.

As previously mentioned, in the search for options to maximize the leverage for the geothermal development component, the IDB Grant Leverage Mechanism (GLM) was identified as a one-time opportunity to achieve risk-mitigation results that allow proper feasibility definition for one geothermal field. The GLM requires a minimum proportion of grant resources, and CTF resources, in combination with SREP, provided the necessary leverage for concessional loan resources to be brought and cover the cost of the resource confirmation phase under a low-cost financing structure.

C (1d): Has the proposed CTF grant already been approved by the CTF Trust Fund Committee or is this subject to a positive SREP approval?

R: Both approvals are being requested simultaneously.

C (1e): A part of the SREP funding has clearly been recognized in the endorsed IP as a non-grant contribution and this was accepted by the Government of Nicaragua. Please explain why a mechanism had to be constructed in this program to transfer the SREP (and CTF) resources to Nicaragua in “non-reimbursable status”. Who will be responsible for its reimbursement if no private investors can be found or if the resource confirmation is not successful?

R: Unlike other renewable energy technologies, the development of geothermal power plants faces the need to invest substantial resources under a high level of risk during the exploration stage. Due to this particular risk-reward profile, geothermal development has been virtually always contingent upon public support, which means that it has not moved in countries where public resources are scarce.

This particularity of geothermal power has led the MDBs to propose innovative ways to use concessional reimbursable resources from the Climate Investment Funds. This means in particular the use of targeted risk mitigation financial instruments such as contingent recovery grants that allow CIF resources to mitigate the resource risk. (A number of projects under the CTF’s Dedicated Private Sector Programs rely on this kind of instruments).

In the case of the Nicaragua program, the approach selected to assess the geothermal potential and to define a priority site for intervention is focused on a technically robust structure: the resource confirmation phase will be implemented with proper indication of the

potential results, which makes it possible to achieve the final objective of attracting private investment and thus allow debt reimbursement and project implementation (see also our answer to question 2b below).

Part 2 Expected results

C (2a): What is the probability of a successful resource confirmation of at least 40MW at the Cosigüina volcano field?

R: The project design for the resource confirmation phase assessed the different sites using information from the pre-feasibility surface studies (resource identification phase), and concluded that for Cosigüina there is a 90% probability of achieving at least a 40 MW capacity.

C (2b): In case the resource confirmation is successful, what is the probability of a successful concession with a private operator, i.e. accepting the minimal condition of reimbursing the exploration costs in addition of building the power plant and operating it? What options are open in case the tender for a concession is not successful, i.e. if the offers are not satisfying these minimal conditions?

R: For the purpose of achieving a successful concession process, potential investors will be invited during the resource confirmation phase to visit the site, and will be able to obtain first-hand information about the exploration progress and results under a pre-arranged format. The project engineer (an expert consultant firm) will actively participate in the technical exchange with the potential investors and provide expert support to develop a financial model for project implementation so as to define minimum conditions for the concession tender.

Nicaragua has built during the last years a policy framework that provides certainty to private investors. (During the last years, [Climatescope](#), a unique country-by-country assessment, interactive report and index that evaluates the investment climate for climate-related investment worldwide, has ranked Nicaragua's enabling framework among the top in Latin America.) This framework has led to a substantial and continuous flow of private investments in the country, and provides confidence about the success of its geothermal plans.

C (2c): Please translate the expected results into the agreed results framework of SREP. What implications need to be expected on the SREP results framework for Nicaragua, due to the shift of SREP contribution from component 2 of the IP to this program?

R: We are no longer requesting the reallocation of resources.

Part 3. Environmental and social risks

The environmental risks associated with the program, in particular the geothermal exploration sub-component are described as “significant”, including habitat fragmentation as well as effects on forests, soils and water resources in an area classified as a natural reserve.

C (3a): Did an independent panel of environmental experts assess the program with regards to risks vs expected benefits relation? If yes, who were these experts and what were their conclusions?

R: Rather than having recourse to an independent expert panel, the IDB relies on its own Environmental and Social Safeguards Specialists to assess the full scope of impacts and risks associated with the geothermal component of the program, as part of the due diligence process. In addition, the IDB hired independent external consultants to prepare environmental and social impact assessments and management plans to assure the program complied with IDB safeguards policies. Together, the external assessments and IDB’s own due diligence concluded that the geothermal component presents an opportunity to leverage investment for the restoration of the dry forest habitat, for the strengthening of the management of the *Reserva Natural Volcán Cosigüina*, for the protection of the Cosigüina aquifer, and for the promotion of ecotourism and employment opportunities in local communities. IDB’s Environmental and Social Action Plan for the geothermal component is geared towards achieving these goals.

C (3b): To what extent were national and international NGOs as well as representatives of indigenous people consulted? What were their reactions? Please make the log of consultations and reactions available to the Subcommittee.

R: IDB’s due diligence found that the subprojects of the program do not generate any impacts on indigenous communities, as none are located within the subprojects’ areas of influence. As a result, no consultations with indigenous people were carried out. Meanwhile, national NGOs were consulted regarding the management plans for the geothermal component of the program. These included Jeffrey McCrary of FUNDECI/Gaia, an expert on biodiversity in the Cosigüina peninsula, who regards the geothermal component as a valuable opportunity to increase conservation efforts, especially of the locally endangered *Ara Macao*, and Professor Jay Stauffer of the Pennsylvania State University, an expert on cichlid fish species in crater lakes in Nicaragua, who deemed that it is not feasible to obtain water for the geothermal component from Cosigüina crater lake. The IDB’s Environmental and Social Action Plan includes plans to partner during project implementation with the international NGO Paso Pacífico, whose mission is to restore and conserve the natural ecosystems of Central America’s Pacific slope by collaborating with landowners, local communities and involved organizations to promote ecosystem conservation, as well as with the national NGO Quetzalli Nicaragua, who provides monitoring and capacity building for bird habitat conservation. While there is no log of consultations and reactions with NGOs, a log of public consultations and reactions regarding the geothermal program is available and can be provided upon request.

Part 4. Transformational impact

It is understood that the mechanism to support geothermal research for additional projects will be funded by reflows to be paid by the private investor of the Cosigüina volcano field and from subsequent projects financed by the mechanism.

C (4a): Is our understanding correct?

R: Yes, this is correct.

C (4b): How will subsequent projects be selected?

R: The process established to select Cosigüina from a set of three sites with geothermal potential assessed at the pre-feasibility level will be used as a model for subsequent selections.

C (4c): How many such subsequent projects are expected to be successfully implemented by the mechanism until the end (i.e. after 30 years)? What are the projected outcomes in terms of the SREP results framework (transformative impact)?

R: Considering the time required for implementing the project resource confirmation phase and concession, as well as for project preparation and selection, a six-year period is foreseen to implement the mechanism in every subsequent project. In order to achieve a transformational impact, the Program seeks to catalyze investment for geothermal projects on a continuous basis, securing a renewable energy base-load capacity in the Nicaragua power system.

C (4d): How will the sequencing of reflows and contributions to additional projects be managed?

R: A detailed design of the Program concession process and reflows management is planned to be undertaken as part of the overall concession mechanism during this first stage, in parallel to the project resource confirmation phase.

C (4e): What will happen to the SREP (non-grant) contribution in the end (after 30 years)? Will it be reimbursed in the same way as the CTF contribution and the IDB loan?

R: The SREP and the CTF non-grant contributions will be treated in the same way, and taking the same level of risk. Resources will be reimbursed to the CIF after 30 years. The IDB loan is provided using standard sovereign-guaranteed terms.

C (4f): Is there a seniority ranking between the IDB loan, the CTF contribution and the non-grant SREP contribution or will reimbursements be pari passu, i.e. the same as disbursements?

R: CTF and SREP non-grant contributions will be disbursed *pari-passu* with the IDB loan, and reimbursements will be made based on the specific conditions of each instrument.

C (4g): What are the guarantees for these reimbursements in case the geothermal resource confirmation at the Cosigüina volcano field is not successful?

R: CTF and SREP non-grant resources are covering the resource risk. Therefore they will not be reimbursed if resource confirmation is not successful.

Part 5. WB project

C (5): How will the still to be submitted WB project in the geothermal development component of the IP be integrated into that program?

R: The World Bank is structuring a full-scale PPP that will cover the multiple stages of risks so as to commission the power generation infrastructure. The technical work on the project including the costing is already finalized and the funding allocated. At this point, they are working on finalizing the PPP structure and the required safeguards work. Since they are not just covering exploration, but the full scale development of the project, they expect it to be submitted for SREP approval in Q3 of this WB fiscal year, and Board approved by Q4. Project preparation is well advanced, and the financing structure and the utilization of the US\$15 in SREP grants and loans are already agreed with the GoN and the private developer.

The World Bank project will therefore be supporting a different field under different conditions and approach. It will ultimately help produce additional geothermal development opportunities, enhancing the Program's transformative impact.

Comments from Germany (CTF), July 19th

C: While we deem the overall framework and reasoning for the intervention to be sound, we would much appreciate to receive additional information on the intended early exploration risk mitigation mechanism to be financed with the proceeds from the auctioning of the exploitation license as the information provided under B 1.24b of the Proposal for Operational Development Document is relatively limited

R: We hope that our above responses to the comments from Switzerland (in particular 1e, 4b, 4c, and 4d) offer enough detail.

Comments from the United Kingdom (CTF & SREP), July 21st

C: We have had an initial conversation with CIF AU about this but we'd like to request a clear rationale on the decision by IDB to use both SREP and DPSP funding for this proposal. We note that this then means double approvals, results reporting processes etc. Could it have been possible to use the SREP private sector set aside instead of the CTF funding?

R: We understand your concern about the additional complexities that a project funded by both SREP and CTF involve. As we have made clear, we will ensure that there is no double counting in result reports. Since there are currently no resources in the SREP private sector set aside, we agreed with our colleagues in the CTF MDB Committee to propose using these USD 10 million from the CTF DPSP for Nicaragua. The use of CTF resources and the leverage of additional resources from the IDB's GLM will enable the Program to reach a critical size needed to fully develop the Cosigüina field.

Additionality

C: It seems Nicaraguan government is providing funding / carrying out the exploration activities and then offering a concession to private developers. How is

the funding from CTF/SREP additional to what is being offered by the Nicaraguan government?

R: Funding from SREP and CTF constitutes the core of the funding package for the geothermal development component, triggering the option to access the IDB's GLM for the leverage of concessional loan resources necessary to complete the required amount. In a context of high demand for the use of scarce public resources, SREP and CTF resources provide a unique opportunity for a long-term risk-mitigation fund to be established and for geothermal development to be scaled up in Nicaragua.

Lessons learnt

C: Good to see that lessons have been learnt from existing two geothermal projects but what analysis have been done on the financial instrument being offered. It is expected that revenues from the bidding process will provide the funding an early exploration risk mitigation mechanism designed to attract private investment for the implementation of future geothermal projects. What analysis have been done on expected revenues from the bidding process?

R: The bidding process for new concessions has been analysed from the standpoint of project economics. As a result, it is expected that the Cosigüina Project will report a positive reimbursement of the exploration costs from a future private investor and still provide the opportunity for a competitive geothermal project, with energy prices below the level of existing projects.

Results

C: We note that the Results Matrix Annex does not include key CTF indicators – GHG emissions avoided and CTF financial leverage - we note there is an estimate of these indicators on table 5 and therefore think they should be included in the main results matrix.

R: The results matrix has been expanded to include these indicators, as well as an indicator on oil imports (as suggested by you). The new lines are as follows:

Results	Baseline	Goal	Details
Geothermal Development			
CIF financial leverage	-	29.057	USD million in 2021
GHG emissions avoided	-	197,794	million tons of CO ₂ e/year starting in 2025
Oil imports reduction	-	23.6	USD million per year starting in 2025

Reinvestment of resources

C: CTF and SREP funds are invested as contingent recovery grants so if the exploration phase is successful, the proceeds from the sale of the concession to a private bidder will be reinvested in a Mitigation Fund (for 30 years) “for an amount not less than the resources invested by the State in the exploration” – does this refer to the amount invested by ENEL, MEM and ENATREL? But does this also mean that the funds disbursed by CTF/SREP will not be reinvested?

R: The “resources invested by the State” include external resources (CTF, SREP, and IDB).

Financial viability

C: Component 1 will be viable (in a central case?) if energy price is at \$USD102/Mwh – is that a minimum over the life of the project? Is that in real terms or nominal terms? Is that the breakeven case? What have been historic energy prices in Nicaragua and how stable have they been; how can we get comfort that they will not go lower than \$US102/MWh in the future? Are we confident that costs of production will remain stable over the life of the project? (what sensitivities have been run?)

R: The energy price of USD 102/MWh is the breakeven price at which the rate of return on equity would be greater than 18% (estimated return expected by a private firm to cover Nicaragua country risk). The price is in nominal terms at 2015 prices and is subject to indexation with a cap at USD 160/MWh. The final price will be the result of a bidding process and a PPA would be signed at that price plus indexation. The expected price compares favorably against energy prices in Nicaragua (i.e. the other private sector geothermal project that is in operation in Nicaragua is receiving a price of USD 117/MWh). Sensitivities were run against the total investment costs and the drilling costs, which are the most important factors that have an impact on the Cosigüina production costs.

C: Component 2: could we have more information about the investment scenario, how confident are we that the accumulated debt will normalize (do we have any controls?) and how will the 11% increase in transmission toll affect the energy prices for consumers?

R: We don't have control over the financial conditions of the loans that the winner of the concession would get. The financial model analysis assumes standard market conditions as a base case. Sensitivities were made to different levels of interest rate and terms of the loans. The breakeven case assumes a senior interest rate of 9% with a total tenor of 20 years and equal payments each year. The transmission toll represents less than 5% of the electricity price for the end consumer; therefore an 11% increase in the transmission toll would only affect the electricity price in 0.5%.

CTF investment criteria

C: With regard to the compliance with CTF investment criteria, in the Development Impact section, mention is made of the creation of a total of 268 jobs covering exploration, construction and operation, yet the footnote only mentions 45 jobs (presumably created during exploration), why is this?

R: Thank you for pointing out this inconsistency. The correct figures are those included on the *development impact* section of the CTF cover page, and on the *economic, social and environmental development impact* section of the SREP cover page, namely a total of 273 jobs to be created during the different stages. We have updated the results indicators on both the CTF and SREP cover pages, as well as the footnote, accordingly.

C: No mention is made on the impact on the balance of payments due to the reduction in oil imports as a result of geothermal power generation. Please could you quantify the impact in the Development Impact section.

R: Thank you for the suggestion. We have updated the two cover pages (CTF and SREP) to include this additional indicator. We have also updated the project results matrix. The information will be included under the following basis: a 40 MW geothermal power project with a 0.90 plant factor and an oil price of USD 50/barrel will reduce oil spending by USD 23.6 million per year.

Comments from the Netherlands (SREP), July 22nd

C: We remain concerned about the possible impact of the proposed shift in budget between the rural energy component and the geothermal component. We feel that this shift cannot be seen as a minor shift. In particular, we are concerned that the rural energy component would become too marginal to have a meaningful impact on energy access in Nicaragua. We note that the discussions around accepting new pilot countries incl Nicaragua prioritized targeting energy access gaps in particular.

R: We are no longer requesting this reallocation of resources.

C: To better assess this concern, we have asked for updates to the detailed financing plan tables in the IP (chapter 6 tables 11 and 12). Unfortunately these updates were not included in the IDBG responses. With the information and replies available, we are reluctant to endorse the proposed change to the IP.

R: We are no longer requesting this reallocation of resources.

C: We endorse the project proposal, with the condition that the funding is taken from the budget allocation to the geothermal component. This implies (for this approval) a shift between IDB and WB reservations for geothermal.

R: A shift between the IDB and the WB allocations would not be possible at this stage, since our WB colleagues have been moving in parallel with the preparation of their project under the assumption of an availability of a total of USD 15 million of SREP resources (see also our response to Switzerland's comment #5, on page 9). This shift is now unnecessary since we are no longer requesting the reallocation of resources.

C: We postpone the discussion about the budget shift between components of the IP (from the rural energy component to the geothermal component) to the next meeting of the subcommittee or another suitable occasion.

R: We are not requesting this reallocation of resources. However, if the GoN still considers that a reallocation is necessary, an update of the Investment Plan would be prepared and submitted to the SREP Subcommittee for endorsement.

Comments from the United States of America (CTF & SREP), July 22nd

C: Will CTF funds be used for a specific part of Component 1, or will the funds be blended with IDB co-financing?

R: CTF funds will be blended with SREP funds and IDB-GLM funds and disbursed *pari-passu* for each investment in Component 1.

C: What criteria need to be met for the contingent recovery grants to be repaid?

R: Contingency grants will be reimbursed to CTF and SREP at the end of the 30 year period, to the extent that there are funds in the Risk Mitigation Fund.

C: Will IDB or the private sector participant be responsible for repaying the grants if necessary?

R: The private sector participant will be responsible for repaying to IDB the contingent recovery grants, and IDB will channel these resources to CTF and SREP.

C: Please explain the value-added of CTF involvement alongside SREP.

R: Please see our response to the first comment from the United Kingdom (page 9).

C: When do IDB staff expect this project to come to the IDB Board?

R: The project is scheduled to be approved on September 7, 2016.

C: Will the ESIA have been published 120 days before that date?

R: Yes the ESIA was published on May 10, 2016.

Comments from the United States of America (CTF & SREP), July 25th

C: Paragraph 10 in Annex III (pg 58 of the pdf version) of the proposal indicates that there are significant breaches in the Stage 1 ESIA. Please provide more detail about the IDB's plans to address the breaches in the Stage 1 ESIA.

R: Paragraphs 35 to 40 of the ESMR answer this question. Briefly, IDB contracted an external consultant to develop complementary studies to Component 1 Stage 1 ESIA in order to address the breaches. These additional studies included: 1) A Biodiversity Assessment and Action Plan; 2) A Cumulative Impacts Assessment and Management Plan; and 3) An Evaluation of Water Availability. In addition, compliance with IDB's Operational Policy OP-703 B.5 requires the borrower to develop prior to first disbursement a complementary ESIA and Management Plan that addresses additional breaches, as outlined in the contractual conditions 2.1 (e) and (f), found in Section 9 of the ESMR. Finally, a local Nicaraguan consultant also developed separate environmental and social analyses and recommendations

for mitigation actions. All existing reports have been published on the project profile on the IDB website, and their respective links are available in Annex 1 of the ESMR.

C: Additionally, Annex III says there is no ESIA for Stage 2 of the project. Will Stage 2 subprojects require IDB Board approval to move forward, and if so with the ESIA be made available for review 120 days before approval? If not, when will the ESIA be made available?

R: Component 1 Stage 2 does not have a stand-alone ESIA. ESG accepted the Component 1 Stage 1 ESIA for the program as the area of influence is the same, despite the above-mentioned breaches in the Stage 1 ESIA. As mentioned above, additional studies were contracted to address those breaches. This is described in detail in paragraph 35 of the ESMR.

The Stage 1 ESIA was published on the project profile on the IDB website 120 days prior to a scheduled board date of September 7th. All additional, complimentary studies have been published on the project profile page as they have been completed. A full list of reports published on the project profile page is available in Annex 1 of the ESMR.

C: Has an Environmental and Social Management Framework been developed for Stage 2? If so, we would like to see a copy of it.

R: To clarify, there are no additional subprojects for Stage 2 of Component 1; Stage 2 simply refers to commercial-diameter exploratory drilling. If successful, Stage 2 drilling could lead to Stage 3, commercial-diameter production drilling, which would include additional, associated infrastructure such as transmission lines, a power plant, cooling towers, and more. A complete description of the differences of Stages 1, 2, and 3 is found in paragraphs 18 to 20 of the ESMR. Contractual condition 5.1 (a) requires the development of an Environmental and Social Management Framework for Stage 3 (production) of the geothermal site, to be presented to the IDB 180 days prior to the beginning of civil works of Stage 3. Presentation of the ESMF requires the presentation of a new, full, ESIA, and the obtaining of an environmental license from MARENA.

Comments from the United Kingdom (CTF & SREP), July 26th

C: Thank you to the project team for their quick response to our questions. Based on the responses received, the UK is happy to approve both the CTF DPSP and SREP funding for this project.

R: Many thanks.

Comments from Switzerland (SREP), July 26th

C: We concur with the Netherlands that a reallocation of USD 4.5 million grant from component 2 (integral rural development) to component 1 (geothermal development) is a significant change in the orientation of the SREP Investment Plan for Nicaragua and we object that such a reallocation is made without a previous consultation of all concerned stakeholders (including the ones interested in component 2) and a formal approval of the modified Investment Plan by the SREP Subcommittee. We would be rather unfavorable to such a modification of the Investment Plan. We are thus only able to approve an amount of USD 7.5 million

(of which USD 6.75 million in non-grant and USD 0.75 million in grant) contribution from SREP for this project.

R: We are no longer requesting this reallocation of resources.

C: We are concerned that the proposed innovative mechanism used to allow the SREP non-grant resources as contingent recovery grant could put at risk the non-grant contributions (to be) allocated to this project. This would be the case if the resource confirmation is not successful or if the private investor(s) entrusted with the concession(s) fail to reimburse the SREP (and/or the CTF). Since Switzerland has only contributed grants to the SREP, we are leaving the appreciation of this risk and the decision whether it should be taken to the non-grant contributors. However, we would like to signal herewith our firm objection on using any grant resources not allocated to this project to compensate for these non-grant resources if the risks materialize.

R: We confirm that the grant resources will not be used to compensate any potential loss for the non-grant contributors.

C: In general, we consider the relation of invested CIF funds (\$21.5 million) to the expected outcome (40 MW) inadequate in relation to other approved SREP co-financed projects (i.e. \$26 million for 200-400 MW at Menengai in Kenya; \$24.5 million for 70 MW at Aluto in Ethiopia; \$8.55 million for 28.5 MW at Karkar in Armenia). It is therefore important to better demonstrate the expected transformative impact of the Program. We would therefore welcome a more elaborate description of the proposed mechanism (Mitigation Fund), including a simulation of the reflows over 30 years, with a summary of overall expected results in terms of SREP objectives (i.e. additional installed generating capacity, expected additional electricity generated and expected CO2 emission that would be avoided).

R. There are indeed many differences in the ratio between geothermal capacity and CIF investment. This is due to a multitude of factors, including the availability of other financial resources, the scope of the project in terms of exploration stage, i.e. the level of confirmation that is sought, the conservativeness of the ex-ante estimates, etc. Therefore a straight comparison among projects becomes very difficult.

The Cosigüina site has been proposed as an attractive geothermal exploration project under a conservative scenario of 40 MW capacity. The pre-feasibility study for Cosigüina reports a probability of 90% for 46.6 MW and 50% for 81.6 MW.

We don't have at this stage the information required to make a simulation of the reflows to the Mitigation Fund. However, a continuous exploration investment process is planned with an expected outcome of five potential sites being explored in a 30-year period, leading to a final outcome in the range of 200-400 MW, and concomitant emission reductions of 30 to 60 MtCO_{2e}.

Comments from Norway (SREP), July 26th

C: I have not had the chance to look in depth into this, and I understand why you raise the questions. The most important one is probably the one about reallocation from rural energy access to geothermal. However, I see from Q and A that the energy access component will be transformed into a separate, dedicated operation

that will be approved in 2017. In this way, the energy access objectives will not only be maintained but also the funding would be increased from \$107.7 million, as foreseen in the SREP Investment Plan, to \$125.28 million (components 2A, 2B, and 2C on the financing table on Table 12, page 5 of the Q&A document). If this is the case, and the reallocation to the geothermal component will secure additional funding from IDB - the resources from the IDB's Grant Leverage Mechanism - I do not see vital reasons not to accept it. I understand there is a time urgency here to secure the IDB funds. If the above elements can be confirmed, I support an endorsement as soon as possible.

R: Many thanks.

Comment from Dennis Mairena, Indigenous Peoples observer (SREP), July 28th

C: I agree with the Netherlands that a reallocation of USD 4.5 million grant from component 2 (integral rural development) to component 1 (geothermal development) is a significant change in the orientation of the SREP Investment Plan for Nicaragua, so I would like to know more about reasons or justifications made by Nicaragua for this reallocations of funds.

R: We are no longer requesting this reallocation of resources.

Comments from Centro Humboldt (SREP observer), July 28th

Centro Humboldt Comments, as an observer of SREP Nicaragua

C: Before we start with our observations, we would like to thanks to the CIF for given us the opportunity to study this Project that will have a big impact in the development of Nicaragua. It is important to mention that nowadays the involvement of NGOs in Nicaragua has been reduced and thanks to the openness that the CIF haves in order to guarantee the participation of the civil society as an observer, is that Centro Humboldt and National Networks that are related with the energy topic have had access to this information.

Comments about the change in the proposal from rural energy access to geothermal

C: We consider that even though the adjust in the budget represents less than the 15%, there is a significant change between the Investment Plan showed to the Committee in 2015 and the Project Proposal that right now is been presented, due to the elimination of the Component 2 (Social development) that mention Photovoltaic Solar Systems (PVS) for rural electrifying , access to clean kitchens for residential uses, renewable energies for productive uses: supporting the micro, small and medium enterprises (MSMEs), hydroelectric, firewood, biomass, SFV and solar energy. We considered that this component would have significant impact to guarantee access to energy in isolated areas outside the national grid, with high levels of poverty, considering that in Nicaragua the population without access to

energy represent proximally (21.78%) 1,500,000 (data that can be found in the SE4ALL evaluation for Nicaragua).

R: We are no longer requesting this reallocation of resources.

C: Regarding to the IDB affirmation, that the government has 33 million dollars guaranteed for Photovoltaic Solar Systems for rural electrifying, as civil society we have the knowledge that South Korea will approve some funds for the Autonomous Regions of the Caribbean Coast but there is no information about what is going to be the criteria for selection and the nature of intervention for this projects, this doesn't give guarantee that it would be under the logic an philosophy of the SREP funds, besides the sub components of clean kitchens, renewable energies for productive uses and the efficient technologies for firewood will be left out, therefore that it will no achieve the goals presented in the component 2.

R: The IDB and the Government of Nicaragua plan to implement Component 2 (*Integral Development of Rural Areas*) as stated on the Investment Plan.

C: On the other hand, it is important to remember that the lack of funds for the investment plans already approved for the committee was pointed out in Oaxaca, also that the decision for applicate the clause for withdrawing the funds wasn't decided, this can limit the access to funding in the future and there is no security that the component 2 for rural energy access, that is been suggested for a second proposal, will obtain the necessary fund. We consider that if the point to give priority to geothermal is that the component 2 can have other options of funding, it needs to be mention which are this other options besides the funds mention for PVS.

R: We foresee that there will be SREP resources available for Component 2.

The Geothermal Project in the Cosiguina Volcano

C: We considered that this project will a have big impact in the development of our country and for keeping the efforts that the Nicaraguan government has been performing to change the energy matrix from fossil fuels to renewable energies. However it is important that the exploration and exploitation phases present more clarity in the bidding process and the grant of the projects in order to promote transparency in this processes.

C: Furthermore, it should be guaranteed the existence and functionality of adequate mechanisms to ensure that the benefits of the geothermal energy will be transfer in affordable access for the final consumers, in order to reduce the access gaps, generating social and economic development, and tangible benefits for the people. Also it is important to consider the environmental risks that this project could face, taking in consideration that the Cosiguina Volcano was declared a national reserve since 1971 due to it high ecological value, besides been an area of transnational waters.

We are going to mention the environmental risks that need to be considered

Environmental Risks

C: The document about the environmental study has been examine as well as the evaluations regarding to the hydrological an biodiversity component that can be found in the IDB website, consequently we consider the following aspects:

C: It is important to deep in the studies regarding to the aquifer potential and the size of this, also the water recharge must be consider in order to avoid a negative impact on this process, especially on the wells drilling phase that it is the stage where the main impacts can occurred. It is very important to highlight this point, because in the underground aquifers of this area, are very susceptible to natural alterations as well as human.

C: It is relevant to consider the proposal of the zoning map for the Protected Area and the identification of the social and environmental areas that are vulnerable. In addition it is necessary to perform an analysis of the environmental fragmentation which determines the relationship between the landscape and the species and propose measures to facilitate the connectivity in the areas where the project it is pretend to be develop. Also, this project should count with a biodiversity management plan.

C: The project should count also with an environmental management plan for dealing with liquid and solid wastes, also the acoustic contamination needs to be consider because it will affect the surrounding communities. As well, the project need to take in consideration the natural hazards specially the tremors and slopes instability, it is appropriate that in the design phase the historic tremors log is taken in consideration in order to make a good design for the construction sites.

C: It is important that in the design of the environmental management strategy, actions for mitigate the productive areas (Corn, Bean, and other products) could be presented, also the possible effects of the heavy minerals as a result of the drilling process in the productive activities need to be consider, for this reason a deeper analysis of the soils need to be included; also a reference of the classification for the use of the soils in the area need to be included.

C: The project should highlight what is going to be the management of the commercial species in the area. If they are going to develop reforestation plans or relocation of species plans, it is important to create strategy for monitoring the species and estimate the level of survival of the trees, native species need to be taking in consideration for the reforestation plan.

Public Consultations

C: If public consultations were held, it would be good to have means to verify and register what happen in this consultations. Also the IDB mentions that they consulted Jeffrey McCray of FUNDECI and Jay Stauffer of the Pennsylvania State University, which gave their opinion as experts; we consider that there must be more openness an inclusion in the consultation process, in which there should be an appreciation of the knowledge and national experience, as a result that in Nicaragua exists many NGOs, Universities and independent experts with the knowledge that allows them to give a significant contribution to this processes.

R: Thank you very much for your comments. We would like to assure you that the environment and social safeguards policies of the IDB address these issues. We are updating

the public version of the proposal in the CIF website to include the Environmental and Social Management Plan, where you will find more detailed information about the issues being considered. In addition, an updated version (in Spanish) of the plan will be posted on the IDB's website on August 1st.