

**[APPROVE BY MAIL]: NICARAGUA: GEOTHERMAL DEVELOPMENT PROJECT (SREP) (WORLD BANK)-
XSRENI053A**

WORLD BANK RESPONSE TO COMMENTS FROM SWITZERLAND

[I]

CCP's ownership structure will indeed change during project implementation in proportion to the investments made by Polaris and ENEL.

This means that the SREP/IDA funding used to finance the proposed project activities will be accounted as ENEL's equity contribution in CCP, and ENEL's ownership in CCP will increase in a proportionate fashion. Component 1 will increase ENEL's share ownership in CCP by US\$40.1 million of SREP/IDA funding. For Component 2, Polaris will invest an additional US\$37.7 million of equity (on top of the US\$8.49 million already invested) and raise an estimated US\$58 - to 75 million of multilateral and private financing combined with the US\$5.3 million IDA credit to fund the remainder of the project. Thus, CCP's ownership structure will change as the project progresses in proportion to the total investments made by Polaris and ENEL. However, since CCP was established as a private entity in Nicaragua, it will operate on a commercial basis following industry standards for both Components of the project.

[II]

There is some confusion stemming from the mention of "contingencies" in the PAD. To clarify, the strategic drilling program was designed with "planning contingencies", a common industry practice, to allow for sufficient wells to be drilled to gain maximum knowledge about the field and thereby mitigate resource risks. This entails drilling 3 exploration wells to gain additional knowledge about the field's resource capacity and if the initial results are promising, another 2 appraisal wells to further assess the productive resource area and reinjection viability. This would provide sufficient information for an industry standard feasibility study to be prepared in order to secure additional financing for the project. While, the final number of wells drilled is a technical matter that will be determined as drilling progresses, the robust approach adopted is based on good industry practice for managing the resource risks associated with exploration drilling. The estimated cost of this exploration drilling program is detailed on pg. 28, Table A2.1 of the PAD.

It is also normal industry practice and WB procedure to include both physical and price "budgetary contingencies" for investment projects. For exploration drilling projects, these contingencies are commonly in the 5-15% range. In CCP's drilling program that has been reviewed by the World Bank, a contingency of 6 percent (US\$2.5 million) has been included to account for potential drilling cost overruns, which is well within this range. We will revise the text in the PAD accordingly, to clarify these two points prior to seeking World Bank Board approval. Please see responses to questions III (b) and (c) below for details on how any potential drilling cost savings would be used.

[III]

a. The drilling costs are not dispensed pari-passu between SREP and IDA. The SREP grant (US\$7.7 million) followed by the SREP loan (US\$7.3 million) will be the first funding applied to cover the costs of the drilling program. The SREP funding will be utilized to minimize the geothermal resource risk and risk exposure of CCP. As with any company, CCP will first use the grant funding and then the loans with the lowest interest rates to minimize costs. This is in line with the SREP objective to facilitate the scale up of renewable energy and the Government's goal of lowering electricity costs for Nicaraguan consumers.

b. It means that any potential savings from lower drilling costs during Component 1 will be on the IDA portion since the costs of the pre-drilling and ancillary activities (e.g. roads, drilling platform, water well, permits, etc.), drilling rig mobilization, and drilling of the first 3 directional wells amounts to US\$26 million, well above the amount of SREP resources available. Any unused IDA funding as well as the US\$5.3 million of IDA funding already budgeted will be applied to finance the initial Component 2 production drilling costs, which are still difficult to finance given the remaining geothermal resource risks.

c. If after completion of the exploration drilling program and feasibility study, no viable geothermal resources for power production are confirmed, then the Government has 2 options:

- o Request a project restructuring to use the remaining funding for geothermal exploration activities in another geothermal field in Nicaragua; or
- o Cancel the remaining IDA funding.

The Government has already indicated its interest in the first option. However, before initiating any exploration activities in another field, the World Bank would conduct further diligence on all aspects of any proposed new investment as part of the project restructuring process. It is worth noting that after drilling the initial 3 exploratory wells in the Casita San Cristobal field, even if no commercial geothermal resource is identified under current economic conditions, this is still a very important result as it allows the Government and private sector to focus future geothermal development efforts and resources on other fields.

[IV]

Whilst we cannot comment on Nicaragua's decision regarding signing of the Paris Agreement, the World Bank does want to highlight that the proposed project supports the overall goal of the Scaling-up Renewable Energy Program to facilitate increased renewable energy capacity being developed in Nicaragua. The Government is planning to reach at least 73 percent of generation from renewables by 2030, and expects geothermal to play a large role in achieving this objective. Based on the recent Power Systems Planning study, Nicaragua could potentially meet 96 percent of its generation needs by 2027 using renewable energy technologies, 450 MW of which would come from geothermal. The proposed project is therefore essential to furthering these objectives by demonstrating a PPP risk mitigation approach to allow geothermal capacity expansion in the Casita San Cristobal field, which could be replicated to scale-up geothermal capacity in additional fields.

[V]

CCP operates as a commercial company under the supervision of its Board of Directors representing its shareholders and thus, will have no reason not to develop the full potential of the Casita San Cristobal field to maximize its revenue and profit. If the geothermal exploration drilling and feasibility study results indicate that the geothermal field capacity is higher than 35 MW then the power plant will be sized accordingly and CCP is already planning to continue expanding the field's geothermal capacity in subsequent stages once the operational capacity of the field is proven. As noted on pg. 28 paragraph 9, and pg. 30 (footnote a) of the Project Appraisal Document; the 25 – 35 MW range indicated in the Project Appraisal Document is a conservative estimate and the actual power plant size will be based on the results of the exploration drilling and the feasibility study. Based on lessons learned from other geothermal developments in Nicaragua, CCP plans to gradually expand geothermal capacity as it proves the Casita San-Cristobal field's capacity to generate power. This approach is consistent with that taken by the San Jacinto geothermal facility in Nicaragua, also owned by Polaris, where an initial 10 MW geothermal power plant was installed to prove the field's ability to generate power, which in turn increased investor confidence and enabled Polaris to raise additional finance to expand the field to its current 72 MW capacity and also consistent with global practice elsewhere such as OrPower4's development at Olkaria III in Kenya.

VI. Both CCP and the Government's intention is for the electricity offtaker to be Disnorte/Dissur – who together supply about 95% of the Nicaragua's electricity market. This is also consistent with the country's Geothermal Law which indicates that the first option for geothermal generation is to meet national electricity demand. CCP's private owner Polaris, has indicated that for the San Jacinto geothermal facility, which they also own and operate, there have been no problems receiving payments from Disnorte/Dissur. There are also other financially strong offtakers, both within and outside of Nicaragua when it mentioned the SIEPAC interconnection. Nonetheless, it is expected that the offtaker will be Disnorte/Dissur so that the local Nicaraguan population benefits from the lower and more stable electricity costs. This is especially important to the Government and the main reason it is dedicating IDA/SREP funding to the project. The Government is able to ensure that this happens given ENEL's ownership in CCP, and the Ministry of Energy and Mines and Regulator's role in approving Power Purchase Agreements.