March 25, 2014

# Response from IDB— Approval by mail - Mexico: Geothermal Financing and Risk Transfer Facility (IDB)

## Responses to Questions from CTF TFC Members on Mexico's Geothermal Financing and Risk Transfer Facility

*Prepared by the Inter-American Development Bank (IDB)*

25 March 2014

We would like to thank the governments of the United Kingdom, Spain, Germany, Canada and France for their written comments and questions.

We agree with Spain's comments, and we defer the question by Germany, Canada, and France to the trustee or the Administrative Unit. Please find below our responses to the questions by the UK.

> ***How were Munich RE identified as a potential delivery provider? Was this through a competitive process?***

Munich Re was, at the time of preparation of this program, the sole known insurance company in the geothermal field. Over the past months Marsh has also expressed its willingness to assume the exploration risk of deep drilling. The program will seek to work with these companies or any other insurance company that offers relevant products.

Although there may be other players in the market offering coverage for equipment and operational issues during construction or even for shortfalls during production, up to now insurance that covers exposure to the geothermal-well productivity risk during the phase of exploration has only been provided by Munich Re (besides some cases of public support in the cost/risk sharing of drilling). Munich Re regards itself as a know-how leader in the field of exploration-risk covers and has set up a dedicated geothermal energy team since developing the first policy in 2003. For the Mexican case in particular, their commitment to collaborating has been confirmed with the signing of a Memorandum of Understanding in February 2014 among Munich Re, Mexico's Ministry of Energy, NAFIN and the IDB, which should contribute to further develop their capacities to deliver on this particular sector in Mexico.

Broadly speaking, insurance being a new product in the field of geothermal, the Team considers that the main driver to lower premiums in the medium term will be the growth of a portfolio for the players ready to invest in such risk. Moreover, we are aware of conversations among insurers to join forces and share the risk on a project by project basis, a development that may deliver earlier than expected results in terms of savings. More generally however, the lack of private alternatives in this area is not different to the situation in nascent markets-industries, with specialized products/services associated with high levels of risk, where early players are rewarded in terms of profits only to see others take advantage of their innovations soon after.

> ***How will you determine the level of subsidy required to bring down the cost of the insurance? How will you ensure that there are an appropriate set of checks in place to determine that the insurance premium is suitable?***

The amount will depend essentially on two factors: the risk involved (technical factor, linked to the project and the developer's concept) and the need to bring down the cost of the insurance to a level that does not harm the economic viability of the project (financial factor). Please note that similar calculations are required for the guarantee fees in the case of the loan convertible to grant, although in this case the subsidy will be translated into a discount on the otherwise applicable rate.

The calculations will be conducted by a team of experts from NAFIN, IDB, the external technical and financial advisor hired for the implementation of the program and the insurance company involved. A general pricing range has been presented to developers, with a positive reception. An implementation workshop will take place in May where we shall present fine-tuned calculations. These activities should lead us to determining a net cost of premium that is within levels acceptable for the program and sufficient for the developers.

Indicatively, we are currently working under the assumption that a 30% subsidy over a 19% insurance premium (confirmation drilling and production drilling loans) and a 50% subsidy over a 57% guarantee commission (loans for early exploratory drilling) will provide a sufficient level of support per project and yet guarantee that funds will be available to provide support to other projects. Insurance premiums would then amount to 13% of the loan, while the guarantee would cost around 29% of the loan. Both guarantee and insurance fees numbers are for reference at this stage, but especially the latter, as we would need to take into account the premiums requested by the insurance company (only available as projects are appraised). In any case, please take note that the loan will only cover a portion of total costs.

> ***Outcome indicators are only to be measured at end of implementation (yr 6), while impact indicators are only to be assessed at completion (yr 10). Consequently, there are annual milestones for outputs, but only milestones (targets) at yr 6 and yr 10 for outcomes and impacts. Given a midterm evaluation at yr 3 is also proposed, to assess progress against objectives and results it would be good if results data could be collected to this point.***

The team agrees on the need to collect data on outcomes and impacts at the midterm evaluation. Resources will be devoted to this purpose. However, bear in mind that due to the long-term nature of the projects supported, shorter term results (as defined in the outcome indicators) may not be representative of the program's ability to achieve its targets within the timeframe proposed.

> ***The evaluation (at yr 6) proposed is very narrow – just an ex-post summation of the results / outcomes being monitored and cost benefit analysis against investment costs. This would be based partially on actual data, with some projection for future investment. We would expect other aspects to be considered in an evaluation – i.e. relevance, effectiveness, efficiency, sustainability, as well as assessment of impacts against a counterfactual and consideration of wider impacts (e.g. in terms of beneficiaries etc).***

The team fully agrees with your suggestion to carry out a broader evaluation in yr 6, including not only direct results, but also effectiveness and sustainability as well as qualitative aspects of the project. Interviews, surveys and a deep analysis of the geothermal development market in Mexico will be undertaken.