Independent Review

CTF Program proposal "CTF-IDB Energy Efficiency Financing Program for the Services Sector"

By

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The objective of this review is to state an independent concept about the potential for the "CTF-IDB Energy Efficiency Financing Program for the Services Sector" in Colombia to accomplish the CTF objectives.

Problem statement

It is clearly explained and supported in the proposal, that in Colombia most firms are not willing to invest their own resources or to compromise their credit capacity for Energy Efficiency –EE- projects because they do not have enough knowledge to evaluate the benefits or they have other project priorities more related to their core business. The ESCO model application has been limited, if not null, while energy consumption is expected to grow. This new energy demand will require an increase in the use of fossil fuel power sources, with the Green House Gases – GHG emissions associated.

Program proposal

The proposal aims to "enhance the competitiveness of the hotel and clinic/hospital sub-sectors, while reducing GHG emissions, through the piloting of an innovative financing model for EE projects". It is basically designed to overcome current financial barriers to implement EE, providing a reliable mechanism to measure the benefits (both economic and in GHG reduction) and ensuring the use of adequate risk management tools. The pilot project is proposed for the selected sub-sector based on a market study that evidences EE potential and GHG reduction potential.

Alignment with CTF objectives

The reviewed program potential to accomplish the CTF objectives is discussed as follows:

i. *Provide positive incentives, through public and private sector investments, for the demonstration of low carbon development and mitigation of greenhouse gas emissions;*

The program is designed to demonstrate the effectiveness of a model that combines technical support, investment financing and risk management tools for the implementation of EE technologies in the hotel and clinic/hospital sub-sectors. In the incipient market for EE projects in Colombia, the availability of financial incentives is an effective manner to promote the implementation of low carbon technologies [1]. This program also proposes to integrate Users, Local Financial Institutions, Insurance companies, Energy Service Providers into the model, which make it a very good strategy for a comprehensive solution, and I consider this the main challenge for this program.

ii. *Fund low carbon programs and projects that are embedded in national plans and strategies, scaling up development and accelerating the diffusion and transfer of clean technologies;*

The program is consistent with the CTF IP for Colombia approved in 2010 and is also included in the Revision proposed in April, 2013 [2]. The indicative plan to implement the PROURE program has been adopted by both the Ministry of Mines and Energy and the Ministry of Environment and Sustainable Development with a clear definition of incentives (i.e. tax discounts) for some EE/Low carbon technologies, closely related with the technologies selected for the reviewed program. It has become evident that once pilot projects results are presented, the interest of other actors to participate is increased; therefore this program has the potential to be a reference for the model application in other sectors and also with other clean technologies included.

iii. *Realize environmental and social co-benefits, illustrating the potential for low-carbon technologies in contributing to sustainable development and the Millennium Development Goals;*

The maturity of the technologies selected for the pilot program is a positive aspect for the expected benefits feasibility. Also the relevance of the selected sectors (i.e. Health and Tourism) in the Colombian economy will result in a direct impact in the competitiveness for the eligible firms by reducing energy costs in a relative short period. Although the methodology of the market studies referenced is carefully detailed, a considerable use of secondary information is present, which gives the values of the expected benefits an indicative character, rather than an actual approximation. This issue is well addressed in the proposal when defining the pilot project scope. Any further extrapolation of figures should be carefully evaluated.

iv. *Support international cooperation on climate change and utilize skills and capabilities of the MDBs to raise and deliver new and additional resources, including official and concessional funding, at significant scale;*

The program operations and sources are well supported in the proposal, including the TC (CO-T1332) to support required market structure and capacity building efforts as in designing the credit line for Bancoldex.

v. *Share experiences and lessons learned in responding to climate change challenges*

Decision makers in general are expected to behave as conservative, risk adverse, and prone to imitate common practices from their peers [3]. Once the program results are proven, other actors will be willing to adopt the model and a market for EE could be open, especially if the risk management tools design performs as expected.

Comments on the proposal document

A minor comment on the document is for pg 4 sub-index 8 "Hotels and clinics/hospitals are considered to be regulated clients". This is not specified by regulation, if the power demand is over 100 kW or energy demand over 55 MWh-month, they could be self-declared as non-regulated and are able to negotiate prices with the energy utilities, actually several hotel and hospitals are non-regulated [4].

In pg 12 (2.6) about environmental risks: power from Co-generation may result in higher local emissions compared with global emissions from the National Grid Power. Detailed emissions balance should be explicit for this specific technology.

In Annex II pg 1. "The IP for Colombia includes US$50 million of concessional CTF resources for energy efficiency" should add comments on the Revised proposal [2].

Conclusion

The program proposal objectives are clear and in alignment with CTF objectives; the model has been designed to overcome the main barriers in EE implementation specially in providing risk management tools for EE projects; the proposed scheme to be piloted in the selected sub-sectors has a good potential to accomplish the CTF objectives and also to be replicated in other sectors.

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References

[1] A. Cadena, S. Botero, C. Táutiva, L. Betancur y D. Vesga, «Regulación para incentivar las energías alternas y la generación distribuida en Colombia,» *Revista de Ingeniería. Universiad de Los Andes,* nº 28, pp. 90-98, 2008.

[2] DNP. [En línea]. Available: https://www.climateinvestmentfunds.org/cif/sites/climateinvestmentfunds.org/files/CTF_TFC.11_PPT4%20Presentaci%C3%B3n%20Colombia%20Investment%20Plan%20Modificado%20abril%202013.pdf. [Último acceso: May 2013].

[3] G. Gigerenzer, «The Adaptive Toolbox,» de *Bounded Rationality. The Adaptive Toolbox*, London, MIT Press, 2001, p. 377.

[4] XM. [En línea]. Available: http://www.xm.com.co/Pages/UsuariosNoReguladosporNivelesdeTension.aspx. [Último acceso: May 2013].