

Country: *Colombia*

Request identification number: *2014-003/COL-02*

Title: *Monitoring and Evaluation of national promotion for energy efficiency (EE) against national targets*

### 1. Project Summary

The assistance to be provided will consist in the evaluation and assessment of the effectiveness of different instruments (those that are already being implemented and others that will be suggested) in Colombia, with the objective of contributing to energy efficiency (EE) goals proposed in the *2010-2015 Indicative Action Plan* of the PROURE, as well as a learning process in contribution to future actions in energy efficiency. The assistance will be which can be considered a “quick response project” with a short duration of 6 months

The main outcome of the assistance will be assessing the performance and efficiency of the economic incentives implemented by the Resolution 186 (2012) in two sectors: industry and transport; as well as evaluating the convenience of including other lines of action and other sectors (services and buildings) to the programme; and expanding the instruments used to promote EE.

The specific outcomes of this assistance are:

1. The governmental agencies involved in the process, including the Energy and Mining Planning Unit – UPME and relevant agencies including the national Planning Department (DNP), Ministry of Mines and Energy, Licensing National Authority (ANLA) and Ministry of Environmental and Sustainable Development (MADS) will have a tool to assess the results of the *2010-2015 Indicative Action Plan* and to evaluate the possibility to extend the incentives to other lines of action. They will also be able to develop other incentives and actions in addition to the existing fiscal incentives.
2. The professionals from the UPME and relevant agencies will have the capacity to design new mechanisms for Monitoring and Evaluation (M&E) the future performance of the EE actions implemented and the programme, as well as to assess the results of the incentives.

The technical assistance provided to the Energy and Mining Planning Unit (UPME), will have different expected impacts in the national context, some of which are detailed in section 3. The most relevant impact of the assistance in the national context will be its contribution to the future redefinition of the EE policies implemented by the UPME. These policies may include a new definition of action lines and sectors within the scope of the existing promotional incentives, defining new incentives and actions to promote EE in the different sectors, and new M&E indicators that will facilitate the future evaluation of the performance of the policy. Additionally, the assistance will contribute to capacity building within the UPME and other governmental agencies that will be involved in the process.

The main country partners (see section 2.3 for a detailed description of the partners and the activities) will be professionals from the different national agencies, universities or international organizations,

that will contribute (directly and indirectly) to the evaluation process, for instance: – *Mining and Energy Planning Unit (UPME); Ministry of Environment and Sustainable Development – Climate Change Division; Ministry of Commerce, Industry and Tourism; Ministry of Transport; – National Authority for Environmental Licenses (ANLA); – Administrative Department for Science, Technology and Innovation (COLCIENCIAS); National University and UNIDO.*

## 2. Overview of the assistance

### 2.1 Outcome (objective of the assistance)

The main purpose of the technical assistance will be evaluate the effectiveness of existing incentives implemented to the five prioritized lines of action within Industrial and Transport sectors in the framework of the *2010-2015 Indicative Action Plan* to promote EE(Resolution 186/2012). During the technical assistance, the feasibility and convenience of including other lines of action (in industry and transport sectors) as well as including additional sectors (Services and Building) will be evaluated. Additionally, the evaluation of the performance of the policy will be complemented by policy recommendations of different incentives and measures that could be included in the programme in order to increase the EE in the selected sectors.

### 2.2 Outputs (results of the assistance)

Outcomes	Outputs
1. Governmental stakeholders (UPME, Ministry of Environment, Ministry of Mines and Energy) will have a tool to monitor the results of the incentives used to promote EE and to assess the degree of accomplishment of the targets. Authorities will also be able to evaluate the potential extension of the plan to other lines of action in order to fulfil the requirements of the stakeholders from each sector.	<p>I. Evaluation of the effectiveness of the incentives in the lines of action in the Industrial and Transport sector to promote EE and reach the targets specified in the <i>2010-2015 Indicative Action Plan</i>.</p> <p>II. Assessment of the opportunities of expanding the implementation of incentives in other lines of action within the Prioritized Strategies in the Industry and Transport; and evaluation of the feasibility of inclusion of two additional sectors in the incentive scheme: Services and Building.</p>
2. Main governmental agencies will enhance local capacities to design new incentive mechanisms for EE and monitor the results of future EE plans in the selected sectors.	<p>III. Summary document with the proposal of additional incentives or actions for different sectors, according to economic, technical and legal criteria.</p> <p>IV. Document with a proposal of M&amp;E indicators to be used in future assessments of the EE policies implemented in these sectors.</p> <p>V. Final report for the evaluation of the EE policy in industry and transport sector, and policy recommendations, including new lines of action prioritized and different incentives and actions to be included in the programme.. The report will be provided to the Ministry of Environment to update the Guide of Fiscal Incentives.</p>

### **2.3 Technological focus**

The Colombian request is oriented to assess and design policies and strategies as a mechanism to promote changes in the behavior and in the decision making processes of stakeholders in the transport and industry sectors.

In both cases the technological focus is oriented to identify specific technologies as the ones to be promote through the incentives proposed.

In the case of transport sector, the approaches to be assessed are:

- Technology upgrading of the vehicle fleet
- Shifts in the transport mode

To obtain such results, the promotion of electricity and hybrid vehicles in mass transport systems, universal access to the railway network and universal access to low emissions transport systems, are proposed.

In the case of industry, the proposed approach is the adoption of energy systems optimization; and the selected technologies are:

- The optimization of electric motor systems, including the promotion of equipment replacement with high efficiency unit
- Optimization of combustion processes through residual heat recovery.

It is expected that the assistance will incentivize the adoption of the technologies proposed by improving the choice of strategic lines. The proposed assistance will assist the National Government in reaching the targets set by their strategies to promote emission reductions in the industry and transport sectors. These measures are identified as priority areas in both the Technology Needs Assessments (TNA) Process as well as in the National Appropriate Mitigation Actions (NAMAs) for urban development and transport development.

Furthermore, the design of a mechanism for M&E the benefits derived will provide the Government with a verifiable framework and methodology to assess of the impacts of the policies in meeting the national objectives. This M&E system will have the co-benefit of increasing transparency in the process of assessment and providing a decision making tool for the improvement of the instruments to induce changes in the perceptions and behaviors of the stakeholders.

The support of CTCN will assist the Colombian Government in following a path of sustainable development through better strategies, actions and measures to increase energy efficiency.

As a result of the identification of additional actions lines, new technologies could be identified.

## **3. Description of the Assistance**

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### **3.1 Activities**

The detailed activity list is presented in Annex I

### 3.2 Expertise required

The executing agency shall show strong competence in the field of energy efficiency policy. Their track record should include the development of similar studies and a thorough understanding of the linkages between different policy incentives to promote energy efficiency. A track record in Colombia and/or Latin American and Caribbean countries is advisable. The thorough command of the Spanish language is required to discuss with government agencies and relevant stakeholders.

### 3.3 Main partners

<i>In-Country partner</i>	<i>Activity</i>
<p><i>UPME – Mining and Energy Planning Unit</i></p> <p><i>Contact people:</i> <i>Carlos García</i> <i>Olga González</i> <i>Andrés Tellez</i></p>	<p>Proponent of the project - Provide background information</p> <p>Identification of the stakeholders to attend the workshops and personal interviews</p> <p>Identification of the stakeholders to attend the workshops and personal interviews. Provide support with background information and collaboration in the organization and development of the workshops.</p> <p>Definition of the new lines to be prioritized in the sectors: Industry, Transport, Tertiary and Buildings</p>
<p><i>Ministry of Environment and Sustainable Development – Climate Change Division</i></p> <p><i>Contact Person:</i> <i>Rodrigo Suarez</i> <i>Diana Camila Rodríguez Vargas</i></p>	<p>NDE acting as a facilitator and coordinator of planned activities and coordinates closely with CTCN.</p> <p>Monitoring and evaluation of the implementation of the technical assistance.</p>
<p><i>Ministry of Commerce, Industry and Tourism</i></p> <p><i>Contact person: Mauricio Acevedo</i></p>	<p>Collaboration in the definition of the new lines to be prioritized in the industrial sector.</p> <p>Support information to define the new group of incentives or actions most appropriate for the industrial sector.</p>
<p><i>Ministry of Transport to be defined</i></p>	<p>Collaboration in the definition of the new lines to be prioritized in the transport sector.</p> <p>Support information to define the new group of incentives or actions most appropriate for the transport sector.</p>
<p><i>ANLA – National Authority for Environmental Licenses</i></p> <p><i>Contact person:</i> <i>Juliana Cancino</i></p>	<p>One of the main collaboration of the project, expertise in the implementation of the PROURE and the incentives in the industrial and transport sectors.</p>
<p><i>COLCIENCIAS – Administrative Department for Science, Technology and Innovation</i></p> <p><i>Contact persons:</i></p> <p><i>1. Yesid Ojeda Papagayo (Programa Nacional de Investigaciones en Energía y Minería)</i></p> <p><i>2. Luz Mory Acevedo Montañez (Dirección de Desarrollo Tecnológica e Innovación Industrial)</i></p>	<p>Provide background information on the innovation incentives included in the COLCIENCIAS studies and research</p>
<p><i>National University</i></p> <p><i>Contact Person: Omar Prias Calcedo</i></p>	<p>Contributor to the evaluation of the effectiveness of the incentives programme. Provide background information and local expertise.</p>
<p><i>UNIDO</i></p> <p><i>Contact Person:</i> <i>Bettina Schreck (Headquarters)</i> <i>Johannes Dobinger (regional office Colombia)</i></p>	<p>Provide background information and coordination with other technical cooperation projects.</p> <p>UNIDO is currently developing a broader energy efficiency program to which this request will contribute, then the coordination between the parts will be very important.</p> <p>Provide support with background information and collaboration in the organization and development of the workshops.</p>

### 3.4 Synergies

As stated in the request elaborated by the UPME, Colombia has been making different efforts in the recent years in order to alienate economic growth with sustainable development.

This quick response will, therefore, use existing information, including the Low Carbon Development Strategy (CLCDS) that establishes the industrial sector as a priority to reduce emissions; the Technology Needs Assessments (TNA); and also some NAMA initiatives that are currently under development related to urban development transport and energy efficiency in industry.

It is worth noting that, the most important initiatives that will be used during the technical assistance is the 2010-2015 Indicative Action Plan, which establishes the main strategies for the whole economy, as well as lines and actions for each one of the different sectors. This plan, elaborated on the basis of some energy scenarios, sets some targets of reduction of energy consumption for the future. Another important input for the evaluation of the effectiveness of the program will be the National Energy Plan 2010-2030 (PEN 2010-2030) developed in 2010 by the National University (*Universidad Nacional de Colombia*) and Fundación Bariloche.

Additionally, there are several studies developed by private consultants and universities that will be very useful for the implementation of the assistance.

Finally, it is important to note, that there is a lot of regulation that sets the normative framework of this assistance, and that must be considered carefully, for instance:

- Law 223 (1995) that established the mechanisms to provide fiscal incentives for equipment.
- Resolution 168 (2012) sets the targets of reduction in energy consumption for EE in industry and transport (based on the Indicative Plan of the PROURE) and the lines for each sector to which these incentives will apply.
- Resolution 563 (2012)
- Others

### 3.5 Timeline

The timeline is presented in the following table



### 3.6 Indicative budget

The overall budget is of 59,715 USD. The detailed budget is presented in annex 2.

### 3.7 Risk assessment

The effect of the incentives implemented cannot be isolated from other changes in the context that may have resulted in variation in energy consumption, complicating the evaluation of the effectiveness of the plan.	The evaluation of the effectiveness of the 2010-2015 Indicative Plan cannot be developed correctly	Medium/high	The overall effect is estimated, and new indicators will be defined in order to avoid this possibility in the future.
The stakeholders consulted propose different/opposite lines of action to be included in the new proposal.	The inclusion of new lines of action for each sector cannot be developed.	Low/Medium	The UPME and the CP will define in conjunction the key criteria relevant for this case in order to choose the lines of action. The draft document with some preliminary prioritized additional lines of action will be discussed during the socialization workshops.
The incentives proposed are not efficient enough to incentivize stakeholders to implement EE actions.	The new EE instruments proposed are inefficient.	Low/medium	The key stakeholders will be interviewed or will participate on the workshop, so that the new incentives will be designed considering their opinion and requirements.
The data required for using the proposed new monitoring tool is not available	The tool is inefficient.	Low	Data mining is done during the tool development stage to assess data availability and data collection systems are recommended as part of the tool.
Government priorities change and energy efficiency incentive programs are not continued	UPME does not have resources nor mandate to develop new policy.	Low	Energy efficiency has been recognized as a national governmental priority.

### 3.8 Monitoring and Reporting

The executing agency shall work closely with the main national counterpart (UPME) in the response activities and will elaborate concrete deliverables against the milestones indicated in the proposed workplan. The reports will be made available to the NDE in Spanish

In addition, the executing agency shall be expected to prepare brief periodical progress reports in English for the NDE and CTCN Climate Manager. Those reports shall:

- Described progress against milestones

- Explain key findings
- Highlight deviations from the established workplan

The NDE as the national agency responsible for M&E will be notified of progress by the main national counterpart (UPME) following the schedule in the proposed workplan. The NDE may monitor progress against the achievement of outputs, taking into consideration the following indicators

<b>Global Project Objective:</b> to assess the use of fiscal incentives for energy efficiency	<b>Key Performance Indicator (KPI)# 1:</b> available incentives are appropriate to promote increased adoption of EE measures and beneficiaries are aware of their existence	Incentives available since 2013, only 32 enterprises applied, perception for enterprise is negative and few of them are aware that the incentive exists	Enterprise are considered adequate by beneficiaries and they are aware of how to apply them	Survey of beneficiaries, validation and dissemination workshop report
<b>Outcome 1:</b> governmental stakeholders will have a tool to monitor results	<b>KPI # 2:</b> tool to monitor policy results is available (number of new policies in place)	There are no mechanism to measure the results of existing policy incentives nor to compare them	An analytical tool is designed	Project progress reports
<b>Outcome 2</b> Main governmental agency, UPME, has the necessary capacities	<b>KPI # 3:</b> capacities of policymakers from UPME is raised (number of policymakers trained)	UPME staff does not have the necessary capacities to evaluate the policy instruments	The staff are trained to use the tool and design new policy mechanisms	Project progress reports

#### 4. Long-term impacts of the assistance

##### 4.1 Expected climate benefits

The key contribution of this response will be the promotion of policies that will promote the adoption of energy efficiency measures. Such measures reduce energy consumption in the target sectors, benefiting both the energy consumers by reducing their costs, and the related environmental impacts from fossil fuel consumption.

In this sense, the most important contribution to mitigation of climate change of the assistance will be observed in the reduction of energy consumption in transport and industry sectors. The reduction in

the level of use of these fuels will imply a reduction in GHG emissions, with the corresponding impact over climate change. The environmental benefits are detailed out in the next section.

#### **4.2 Co-benefits**

The actions in the transport sector could have important health co-benefit resulting from the reduction of air pollution. Especially a shift to active transport (walking and cycling) and rapid transit/public transport potentially include reduced cardiovascular and respiratory disease from air pollution, less traffic injury and less noise-related stress. Increased physical activity can prevent some diseases including cancer, type 2 diabetes, heart problems, and other obesity-related risks. The World Health Organization estimates that urban air pollution, much of which is transport-generated, results in the 1.3 million lives lost annually. Furthermore, traffic accidents add another 1.3 million list lost every year, mostly in low and middle income countries. From the economic point of view, the actions in the transport sector derive in important benefits may arrive from increasing fuel economy, reducing road congestion, improving operational efficiency of transport systems, improving land use and urban planning, amongst other. Many of these actions may result in increasing economics of scale with the consequent economic benefits. In addition, these aspects may improve energy security through reduced energy costs and dependency on oil imports and increased access to energy. Finally, new transport technologies can be a potential technology niche in Colombia with multiple impacts: employment, foreign currency generation, etc.

In the case of the industry sector, GHG mitigation policies that shift fossil fuel uses toward cleaner energy (or improve cleaner and more energy efficient production) can generate hidden environmental “co-benefits” or “ancillary benefits.” These co-benefits, such as reductions in local particulate matters (PM), and sulfur dioxide (SO<sub>2</sub>) and nitrogen oxide (NO<sub>x</sub>) emissions, can reduce the overall environmental health damages. Improving competitiveness, reducing costs, increasing potential articulation to international markets and reducing carbon and water footprint could be considered ancillary benefits. It is important to highlight that the estimation of specific co-benefit in the Colombian case may request for oriented and specific studies. However, one important contribution of this quick response could be its contribution to generating inputs to a better understanding of such co-benefits.

#### **4.3. Post-assistance plans and actions**

This quick response plan will provide a group of sub products that will be important inputs for future programs and evaluations. For instance: the assessment of the incentives implemented and its contribution to the EE targets; the proposal of new action lines and/or new sectors to be included in the promotion plan; and a new proposal for a set of incentives or actions to complement the fiscal incentives implemented from 2012. The results of the project may be used for the updating of the existing Guide of Fiscal Incentives with financial sector entities that are part of the Green Protocol

These sub-products will be a main input for the elaboration of broader energy efficiency programme and, additionally it may contribute to the reevaluation of the Energy Efficiency Programme – PROURE. The PROURE revision process is planned for 2015. It would be convenient to use the policy recommendations included in the technical assistance to redefine the goals and targets of the PROURE, based on the recent experience of the energy efficiency actions performed in the industrial and transport sector, and incorporating new and more recent data about the structure of energy consumption and trends.

Furthermore, the elaboration of a specific M&E scheme for the Colombian case can be a useful tool to study the performance of this policy and other energy efficiency programs that may be implemented in the future, which should be periodically evaluated. This activity will be done in conjunction with professionals from the UPME, and their collaboration in the process will also result in capacity building for the agency, that may have significant impacts in the future implementation of initiatives.

**5. Formal agreement and signatures**

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**Signatures of the requesting country**

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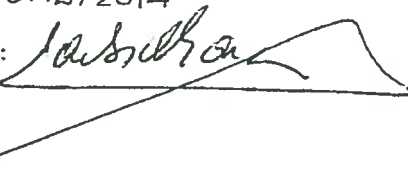
**NDE**

Name: Rodrigo Suarez  
Title: Climate Change Director  
Date: 23/12/2014

Signature: 

**Request Proponent (Optional)**

Name: Carlos Garcia  
Title: *Chief Demand Officer*  
Date: 23/12/2014

Signature: 

**Signatures of the CTCN**

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**For the CTCN Director**

Name: Jukka Uosukainen  
Title: CTCN Director  
Date: 12 Jan 2015

Signature: 

**For the Climate Technology Manager**

Name: Patrick Nussbaumer  
Title: Climate Technology Manager ad interim  
Date: 9 Jan 2015

Signature: 

**Annex 1: Request Response Logical Framework**

<p><b>1. Output i: Evaluation of the effectiveness of the incentives in the five lines of action in the Industrial and Transport sector to promote EE and reach the targets specified in the 2010-2015 Indicative Action Plan</b></p>	<p>Evaluation document that assesses the existing program and the effectiveness of the instruments implemented to promote EE, including the opinion of the key stakeholders from different private and public sector</p> <p>Baseline: (0) Target: (1)</p>	<p><b>1.1 Desktop review and assessment of available international studies.</b></p> <p><b>1.2 Desktop review of Colombian regulation on EE</b></p> <p><b>1.3 Revision of EE Reports</b></p> <p><b>1.4 Evaluation of the 2010-2015 Indicative Action Plan</b></p>	<p>1.1.1 Literature review of country experiences on the implementation of EE efficiency incentives in industry and transport sectors</p> <p>1.1.2 Literature review of evaluation of EE incentives</p> <p>1.2.1 Desktop revision of existing regulation for EE in industry in Colombia.</p> <p>1.2.2 Desktop revision of existing regulation for EE in transport in Colombia.</p> <p>1.3.1 Desktop revision of existing reports on energy efficiency in Colombia, which will be prepared and provided by the UPME.</p> <p>1.3.2 Agreement between UPME and CTCN on the key issues to be remarked and considered</p> <p>1.4.1 Analysis of the energy balances for the period 2008-2013</p> <p>1.4.2 Evaluation of the evolution of energy consumption for the industrial and transport sectors.</p> <p>1.4.3 Evaluation of fuel share in the industrial and transport sectors.</p>	<p>Draft summary of the main experiences and lessons learned from the use of incentives in the analyzed sectors</p> <p>Draft summary of the main instruments used in Colombia for EE in transport and industry</p> <p>Preliminary evaluation of the incentives according to the reports.</p> <p>Refined draft on the evaluation of the 2010-2015 Indicative Action Plan, considering the fiscal incentives implemented in transport and industry.</p>	<p>CTCN</p> <p>CTCN</p> <p>CTCN - UPME</p> <p>CTCN UPME Ministry of Mining and Energy</p>
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expected USD 27,375)

	<p>1.4.4 Assessment on the degree of targets compliance of the Indicative Action Plan 2010-2015, related to the Implementation of the financial instruments. This activity will be developed based on the indicators proposed the plan.</p> <p>This activity will require the information provided by the MME and the UPME.</p>			
<p><b>1.5 Stakeholders selection for interviews and workshops</b></p>	<p>1.5.1 Stakeholders identification from industrial sector in conjunction with the UPME</p> <p>1.5.2 Stakeholders identification from transport sector in conjunction with the UPME</p> <p>1.5.3 Key stakeholders selection in industrial and transport sectors in conjunction with the UPME</p>	<p>List of stakeholders that should be contacted to be interviewed or to participate in the workshops.</p>		<p>CTCN - UPME</p>
<p><b>1.6 Interviews to stakeholders and Decision makers.</b></p>	<p>1.6.1 Interviews with the key stakeholders selected in activities 1.4.2 and 1.4.3 directly related to decision making, policy and strategies definition in the Industrial and transport sectors.</p> <p>1.6.2 Identification of the main barriers and problems confronted by the implementation of the programme in the recent call.</p>	<p>Report on the interviews.</p>		<p>CTCN with the collaboration of the UPME</p>
<p><b>1.7 Base document with main aspects to be discussed and validated during the workshop.</b></p>	<p>1.7.1 Elaboration of a document summarizing the main impressions of the actors identified during the interviews on the following aspects:</p> <ul style="list-style-type: none"> <li>Main barriers and problems confronted by the implementation of</li> </ul>	<p>Draft document with key impressions of the stakeholders on the plan implemented and suggestions of the new lines and incentives.</p>		

	<p>the programme in the recent call, main impressions of the programme.</p> <ul style="list-style-type: none"> <li>Different lines of actions that should be included in the incentives programme.</li> <li>Different alternative instruments that could be implemented in the existing and new lines of action for transport and industry.</li> </ul>			
<p><b>1.8 Development of an internal workshop to discuss and validate the main aspects highlighted in the document from activity 1.7.</b></p>	<p>1.8.1 Organization of a workshop with Governmental and other relevant actors.</p> <p>1.8.2 Realization of the workshop with the purpose of discussion the document presented.</p>	<p>Report of the workshop summarizing the main aspects discussed (barriers and problems in each sector, lines of actions that were mentioned, instruments that should be considered, etc.)</p>	<p>Organization of workshop: UPME with the collaboration of other governmental institutions.</p> <p>Development of the workshop: CTCN with the collaboration of UPME</p>	
<p><b>1.9 Development of a Draft document with the main result of the assessment of the Indicative Plan</b></p>	<p>1.8.1 Resume the key lines of action prioritized during the workshops, to be included in the new Incentives programme.</p> <p>1.8.2 Resume the different alternative incentives and instruments discussed during the workshops that could be included in the promotion programme.</p> <p>1.8.3 Evaluation of the feasibility of another workshop for the socialization of the results.</p>	<p>First partial document with the main results of the workshop</p>	<p>CTCN</p>	
<p><b>2. Output II: Assessment of the opportunities of expanding the implementation of Incentives in</b></p>	<p>Additional lines of action in the</p>	<p>Report on the criteria selected to be used for the inclusion of</p>	<p>CTCN – UPME – Ministry of Industry – Ministry of</p>	
	<p>2.1 Selection of the criteria to choose new lines of action for the 2010-2015 Indicative Action</p>	<p>2.1.1 Listing the different economic criteria for the evaluation of the new lines of actions to be included in the</p>		



<p><i>other lines of action within the Prioritized Strategies in the Industry and Transport, and evaluation of the feasibility of inclusion of two additional sectors in the incentive scheme: Services and Building.</i></p> <p>(expected USD 7,200)</p>	<p>Industrial and transport sector are included in the programme</p> <p>Baseline: (5) Target: (to be define)</p>	<p><b>Plan PROURE</b></p> <p><i>2.2 Prioritization of the new lines of action for the 2010-2015 Indicative Action Plan PROURE in each one of the sectors: Industry; Transport; and Services and Buildings.</i></p>	<p><b>programme</b></p> <p>2.1.2 Listing the different technical criteria for the evaluation of the new lines of actions to be included in the programme</p> <p>2.1.3 Selection of the key criteria for both technical and economic evaluation of the different lines of action in the Industrial and transport sector to be included in the 2010-2015 Indicative Plan.</p>	<p>new lines of action.</p>	<p>Transport</p>
<p><b>3. Output III: Summary document with the proposal of additional incentives or actions for different sectors, according to economic, technical and legal criteria.</b></p> <p>(expected USD 14,140)</p>	<p>Additional instruments validated by the UPME will be included in the EE program to increase its effectiveness</p>	<p><b>3.1 Evaluation of the available information in order to develop the proposal with additional incentives and other policy actions for each sector.</b></p> <p><b>3.2 Evaluation of the feasibility of including new instruments.</b></p>	<p><b>programme</b></p> <p>2.2.1 Based on the criteria identified in activity 2.1.3 prioritize the lines of action that will be included in the incentives programme in the Transport Sector.</p> <p>2.2.2 Based on the criteria identified in activity 2.1.3 prioritize the lines of action that will be included in the incentives programme in the Industrial Sector.</p> <p>2.2.3 Based on the criteria identified in activity 2.1.3 prioritize the lines of action that will be included in the incentives programme in the Services and Building Sectors.</p>	<p>Second partial document on the lines of action prioritized and to be included in the promotional programme.</p>	<p>CTCN in conjunction with the UPME</p>
<p><b>3.1 Evaluation of the available information in order to develop the proposal with additional incentives and other policy actions for each sector.</b></p> <p><b>3.2 Evaluation of the feasibility of including new instruments.</b></p>	<p>Summary of the information gathered</p>	<p>3.1.1 Evaluation of the information gathered from activities 1.1 to 1.8.</p> <p>3.2.1 Technical evaluation of the alternatives</p> <p>3.2.2 Economic evaluation of the alternatives.</p> <p>3.2.3 Evaluation of the activities from the legal perspective.</p>	<p>Summary of the information gathered</p>	<p>CTCN</p>	<p>CTCN with collaboration from the UPME</p>

<p>Baseline: (2)</p> <p>Target: (to be defined)</p>	<p>3.2.4 Evaluation of the feasibility of the implementation of new incentives.</p> <p>3.3.1 Resume the evaluations from activities 3.2.1 to 3.2.3</p> <p>3.3.2 Analysis and evaluation of the convenience of implemented particular instruments for each sector or general instruments</p> <p>3.3.3 Development of a new proposal for each one of the sectors: Industry; Transport; Services and Building.</p> <p>3.4.1 Organization of the meetings</p> <p>3.4.2 Discussion of the Draft Documents on new incentives and lines of actions.</p>	<p>Draft document with the proposals of incentives to be discussed with the governmental agencies.</p> <p>Report of the meetings summarizing the main conclusions</p>	<p>CTCN</p> <p>CTCN - UPME - other governmental agencies that may participate.</p> <p>CTCN</p>
<p>4. Output IV: Document with a proposal of M&amp;E indicators to be used in the future assessment of the EE policies implemented in the sectors.</p> <p>(expected USD 8500)</p>	<p>3.5 Development of a Draft document</p> <p>4.1 Literature and background information and experiences in M&amp;E indicators.</p> <p>4.2 Review and evolution of the indicators proposed by the PROURE.</p>	<p>3.5.1 Development of a document summarizing the proposed new incentives or other measures and possible new lines of action</p> <p>4.1.1 Desktop review of literature recommendations of M&amp;E indicators in the selected sectors.</p> <p>4.1.2. Desktop review of existing experiences of indicators in different study cases.</p> <p>4.2.1 Review of the indicators of the PROURE.</p> <p>4.2.2 Evaluation of the effectiveness of</p>	<p>Third partial document, summarizing the proposals for additional incentives and actions.</p> <p>Draft summary of the main lessons of M&amp;E Indicators</p> <p>Draft documents highlighting the main results of the evaluation of the indicators proposed to evaluate the</p> <p>CTCN</p> <p>CTCN</p>



CLIMATE TECHNOLOGY CENTRE & NETWORK

**CTCN**

**CTCN Technical Assistance  
Response Plan**

<p>Efficiency) Target: (3- /effectiveness type: development, quality, results)</p>	<p>4.3 Evaluation of the existing information in order to define which indicators could be the most appropriate</p>	<p>these indicators to this case. 4.3.1 Desk search of statistics and information on different variables in different governmental institutions related to the selected sectors. 4.3.2 Evaluation of the usefulness of the existing information for the development of indicators. 4.3.3 Based on the draft summary from activity 4.1 and on the existing information, and considering the existing indicators, develop a new proposal of indicators.</p>	<p>programme Draft document with new M&amp;E indicators to be discussed.</p>	<p>CTCN in collaboration with UPME</p>
<p>4.4 Development of a proposal with different alternatives of indicators to be applied to the sectors.</p>	<p>4.4.1 Presentation of the proposal to the UPME. 4.4.2 Discussion of the proposal 4.4.3 Presentation of the proposal to DNP, Ministries and ANLA.</p>	<p>Summary of the discussion. Revised version of the draft proposal of M&amp;E.</p>	<p>CTCN - UPME</p>	
<p>4.5 Development of an Indicators Report</p>	<p>4.5.1 Resume the results of the discussion of the proposed indicators in the previous activities into a draft report.</p>	<p>Fourth partial Document with proposal of new M&amp;E indicators to evaluate the EE actions.</p>	<p>CTCN</p>	
<p>4.6 Guidance and training</p>	<p>4.6.1 Guidance and training to DNP, Ministries and ANLA for monitoring the results of the incentives used to promote EE and assessing the degree of the accomplishment of the targets.</p>	<p>CTCN - UPME</p>	<p>CTCN - UPME</p>	
<p>5. Output V: Final report for the evaluation of the EE policy in industry and transport sector, including new lines of action prioritized and different incentives and actions to be</p>	<p>5.1 Development of the final assessment and policy recommendation report</p>	<p>5.1.1 Development of the final report resuming the evaluation of the Indicative Plan, and other policy recommendations. This</p>	<p>Development of the final report This document will resume the four preliminary draft reports.</p>	<p>CTCN - UPME</p>



**CTCN Technical Assistance  
Response Plan**

<p><i>Included in the programme.</i></p> <p>(expected USD 2500)</p>	<p>recommendation that can be useful for the future policy making.</p> <p>Baseline: (0) Target: (1)</p>							
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**Annex 2: Indicative budget**

Activity	Notes	Quantity	Unit	Unit Cost (\$)	Budget		Total Cost (\$)
					Cost year 1	Cost year 2	
<b>Consultant</b>							
Junior/mid-level	Performing a thorough review of existing reports on international experiences of EE in transport and industry	4	Man days	400	1600		
			Sub-total Activity 1.1		1600		
<b>Consultant</b>							
Junior/mid-level	Performing a thorough review of existing regulation for EE in Colombia for transport and industry.	4	Man days	400	1600		
			Sub-total Activity 1.2		1600		
<b>Consultant</b>							
Junior/mid-level	Assessing existing reports on energy efficiency in Colombia, which will be prepared and provided by the UPME.	2	Man days	400	800		
Senior staff	Preparing a preliminary evaluation of the incentives according to the reports.	2	Man days	500	1000		
			Sub-total Activity 1.3		1800		

<b>Consultant</b>					
Senior staff	Evaluating the 2010-2015 Indicative Action Plan, considering the fiscal incentives implemented in transport and industry, based on different data sources.	10	Man days	500	5000
					<b>Sub-total Activity 1.4</b>
					<b>5000</b>
<b>Consultant</b>					
Junior/mid-level	Identifying and selecting key stakeholders in the industrial and transport sectors in conjunction with the UPME	2	Man days	400	800
					<b>Sub-total Activity 1.5</b>
					<b>800</b>
<b>Consultant</b>					
Senior staff	Contact the key actors and interview them in order to get their opinions and impressions.	3	Man days	500	1500
<b>Travel</b>					
Flights for consultants	From Buenos Aires – Bogotá – Buenos Aires	3	Ticket price	1000	3000
Daily Substantance Allowance	Daily rate for Bogota	15 (5 days per person)	DSA city x	205	3075
					<b>Sub-total Activity 1.6</b>
					<b>7575</b>
<b>Consultant</b>					
Senior staff	Preparing an issue paper that will be used during the workshop for discussion, the draft will resume the preliminary findings	2	Man days	500	1000
					<b>Sub-total Activity 1.6</b>
					<b>1000</b>



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CLIMATE TECHNOLOGY CENTRE & NETWORK

**CTCN Technical Assistance  
Response Plan**

Consultant		14	Man days	500	7000
Senior staff	Coordinating the workshop and discussions				
		<b>Sub-total Activity 1.8</b>		<b>7000</b>	
<b>Consultant</b>					
Senior staff	Writing and revising the document with the key findings	2	Man days	500	1000
		<b>Sub-total Activity 1.9</b>		<b>1000</b>	
<b>Consultant</b>					
Junior/mid-level	Listing and selecting key criteria for both technical and economic evaluation of the different lines of action in the Industrial and transport sector to be included in the 2010-2015 Indicative Plan.	3	Man days	400	1200
Senior staff	Listing and selecting key criteria for both technical and economic evaluation of the different lines of action in the Industrial and transport sector to be included in the 2010-2015 Indicative Plan.	4	Man days	500	2000
		<b>Sub-total Activity 2.1</b>		<b>3200</b>	
<b>Consultant</b>					
Senior staff	Based on the criteria identified in activity 2.1.3 prioritizing the lines of action that will be included in the incentives programme in the Sectors. Writing and revising a document with the key findings	8	Man days	500	4000
		<b>Sub-total Activity 2.1</b>		<b>4000</b>	

Consultant						
Junior/mid-level	Evaluating of the information gathered from activities 1.1 to 1.8. Writing a report with the key findings.	4	Man days	500	2000	
				<b>Sub-total Activity 3.1</b>	<b>2000</b>	
<b>Consultant</b>						
Senior-level	Performing a technical, economical and legal evaluation	2	Man days	500	1000	
				<b>Sub-total Activity 3.2</b>	<b>1000</b>	
<b>Consultant</b>						
Senior-level	Summarizing the evaluations and assessing the convenience of implemented particular instruments for each sector or general instruments	4	Man days	500	2000	
				<b>Sub-total Activity 3.3</b>	<b>2000</b>	
<b>Consultant</b>						
Senior-level	Coordinating the internal workshop	7	Man days	500	3500	
<b>Travel</b>						
Flights for consultants	From Buenos Aires – Bogotá – Buenos Aires	2	Ticket price	1000	2000	
Daily Subsistence Allowance	Daily rate for Bogota	8 (4 per person)	DSA city x	205	1640	
				<b>Sub-total Activity 3.4</b>	<b>7140</b>	

