	<p align="center"><b>CDM: FORM FOR SUBMISSION OF A “LETTER TO THE BOARD” (Version 01.2)</b></p> <p align="center">This form should be used only by project participants and other stakeholders for submitting a “Letter to the Board” in accordance with the latest version of the <i>Modalities and procedures for direct communication with stakeholders</i></p>
<p>Name of the stakeholder<sup>1</sup> submitting this form (individual/organization):</p>	<p>Companhia Hidrelétrica Teles Pires</p>
<p>Address and contact details of the individual submitting this form:</p>	<p>Address: Street: Rua Lauro Miller 116 – Sala  City: Rio de Janeiro  Postal code: 22290-160  Country: Brazil  Telephone number: +55 (11) 3253-0353  E-mail address: <a href="mailto:cferreira@uhetelespires.com.br">cferreira@uhetelespires.com.br</a></p>
<p>Title/Subject (give a short title or specify the subject of your submission)</p>	<p>Suggestions on policy issues: Discussion on the treatment of host country national mitigation policies (E-policies) under the CDM</p>
<p>Please mention whether the submitter of the form is:</p>	<p><input checked="" type="checkbox"/> Project participant  <input type="checkbox"/> Other stakeholder, please specify</p>
<p>Specify whether you want the letter to be treated as confidential<sup>2</sup>:</p>	<p><input type="checkbox"/> To be treated as confidential  <input checked="" type="checkbox"/> To be publicly available (UNFCCC CDM web site)</p>
<p>Please choose any of the type(s) below<sup>3</sup> to describe the purpose of this submission.</p>	
<p><input type="checkbox"/> <b>Type I:</b></p> <p style="padding-left: 40px;"> <input type="checkbox"/> <b>Request for clarification</b>                      <input type="checkbox"/> <b>Revision of existing rules</b>  <input type="checkbox"/> Standards. Please specify reference  <input type="checkbox"/> Procedures. Please specify reference  <input type="checkbox"/> Guidance. Please specify reference  <input type="checkbox"/> Forms. Please specify reference  <input type="checkbox"/> Others. Please specify reference</p> <p><input type="checkbox"/> <b>Type II: Request for Introduction of new rules</b></p> <p><input checked="" type="checkbox"/> <b>Type III: Provision of information and suggestions on policy issues</b></p>	
<p>Please describe in detail the issue on which you request a response from the Board, including the exact reference source and version (if applicable).</p>	

<sup>1</sup> DNAs and DOEs shall use the respective DNA/DOE forms for communication with the Board.

<sup>2</sup> As per the applicable modalities and procedures, the Board may make its response publicly available.

<sup>3</sup> Latest CDM regulatory documents and information are available at: <http://cdm.unfccc.int/Reference/index.html> .

Members of the CDM Executive Board  
 UNFCCC Secretariat  
 Martin-Luther-King-Strasse 8  
 D 53153 Bonn  
 Germany

**To** [cdm-info@unfccc.int](mailto:cdm-info@unfccc.int)  
**From** Mr. Celso Ferreira ([cferreira@uhetelespires.com.br](mailto:cferreira@uhetelespires.com.br))  
**Date** 25 May 2013  
**Subject** Teles Pires Hydropower Plant Project Activity (Ref. # 9301)

Honourable Members of the CDM Executive Board,

Due to the fact that a few inputs from the global stakeholders consultation process (GSP) of the Teles Pires Hydropower Plant Project Activity contained some misinformation about the CDM, the environmental licensing process in Brazil and, the Project itself, the project participants decided to include a separate appendix to the PDD with the responses to the received comments together with the PDD submitted for registration. The intention of the PPs is to increase the transparency of the submission by making not only the DOE validation of the responses but also the full text of the responses to the GSP publicly available. Still with the purpose to guarantee the transparency of the PPs commitment to the Brazilian environmental laws and regulations as well as to the CDM process we are sending you with the present letter a short presentation about the project. We would like to stress that all the information contained in the presentation is also available in the validated documents submitted to registration.

We thank you for the opportunity to submit the project for registration and would be very happy to provide any desired clarification,

Kind regards,

Celso Ferreira  
 Technical Director

CC:  
 Mr. Peer Stiansen, Norway, Annex-I, Chair of the EB  
 Mr. Antonio Huerta-Goldman, Mexico, GRULAC  
 Mr. Eduardo Calvo Buendia, Peru, GRULAC  
 Mr. José Domingos Gonzalez Miguez, Brazil, Non-Annex

*Please provide any specific suggestions or further information which would address the issue raised in the previous section, including the exact reference source and version (if applicable).*

Suggestions are included in the text above, with reference to each specific issued.

*If necessary, list attached files containing relevant information (if any)*

- UHE\_Teles\_Pires-to\_the\_EB\_members-v13.05.28.pdf

**Section below to be filled in by UNFCCC secretariat**

Date when the form was received at UNFCCC secretariat

Reference number

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**History of document**

<b>Version</b>	<b>Date</b>	<b>Nature of revision</b>
01.2	08 February 2012	Editorial revision.
01.1	09 August 2011	Editorial revision.
01	04 August 2011	Initial publication date.
<b>Decision Class:</b> Regulatory <b>Document Type:</b> Form <b>Business Function:</b> Governance		

# Teles Pires Hydropower Plant Project Activity



# PROJECT DESCRIPTION

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- Electricity generation by hydrological resources of the Teles Pires River
- Location: West/northwest of Brazil, between the cities of Paranaíta (State of Mato Grosso) and Jacareacanga (State of Pará)
- Installed capacity: 1,820 MW
- Reservoir area: 134.70 km<sup>2</sup>
- Power density: 13.51 W/m<sup>2</sup>
- Commercial operational: 2015

# TELES PIRES PROJECT

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## Selected contributions of the project:

- Increase short, mid and long-term employment opportunities in the area where it is located during construction and operation;
- Enhances the local investment environment and, therefore, improves the local economy;
- Diversifies the sources of electricity generation and promote regional integration. This is important for meeting growing energy demands, and transitioning away from fossil-fuel-fired electricity generation in the whole country, but markedly in the region;
- Makes use of renewable hydroelectric resources.
- Alignment with the national climate change mitigation actions

# CDM PROJECT

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## Brazilian Electricity Sector

Considering that it is a “prerogative of the host country on the design and implementation of policies to promote or give competitive advantage to low greenhouse gas emitting fuels and technologies”<sup>1</sup>, the Brazilian Government already in the first version of its *National Plan on Climate Change*<sup>2</sup>, released in 2008, included the goal to increase hydropower generation.

In the plan planned hydropower plants are referenced as cumulatively reducing 183 million tCO<sub>2</sub>e. The goal was later communicated by the Brazilian Government to the UNFCCC in January 2010, as a follow up of the Copenhagen Accord:

*Increase in energy supply by hydroelectric power plants (range of estimated reduction: 79 to 99 million tons of CO<sub>2</sub> eq in 2020).*

It is clear that the project not only contributes to sustainable development but is also in line with the planned national climate change mitigation actions.

# CDM PROJECT

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## Additionality:

The benchmark applied is the *Weighted Average Cost of Capital (WACC)* for the power generation sector in Brazil. The WACC is a rate used to discount business cash flows and takes into consideration the cost of debt and the cost of equity of a typical investor in the sector of the project activity. In addition, considers that the shareholders expect compensation for the projected risk of investing resources in a specific sector or industry in a particular country.

The IRR of the Teles Pires project in the in a business as usual environment (baseline scenario: no CERs, no E- policies) is 3.38%, significantly lower than the applicable benchmark, WACC of the sector of 7.27%.

The result clearly demonstrates that the project activity cannot be considered the most financially attractive alternative.



# CDM PROJECT

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## CDM consideration:

In accordance with the “*CDM Project Cycle Procedure*” (version 2), for project activities with a starting date on or after 02 August 2008, the Project Participants must notify the host country DNA and the UNFCCC secretariat of their intention to seek CDM status.

In December 2010, the Project Participants have forwarded the Prior Consideration of the CDM Form both for the Brazilian DNA and to UNFCCC secretariat informing their intention to register *Teles Pires Hydropower Plant Project Activity* under the CDM.

Since the project start date was in 19 August 2011, which is the date of the EPC contract, the proposed project activity is in accordance with the CDM rules.

# GHG EMISSIONS FROM RESERVOIRS



According to a recent IPCC (2011) report<sup>4</sup>, “characterizing a reservoir as a net emitter of GHGs implies consideration of emissions that would have occurred without the reservoir, which is an area of active research and currently without consensus... the assessment of man-made net emissions involves a) appropriate estimation of the natural emissions from the terrestrial ecosystem, wetlands, rivers and lakes that were located in the area before impoundment; and b) abstracting the effect of carbon inflow from the terrestrial ecosystem, both natural and related to human activities, on the net GHG emissions before and after impoundment”.



Teles Pires River

# GHG EMISSIONS FROM RESERVOIRS

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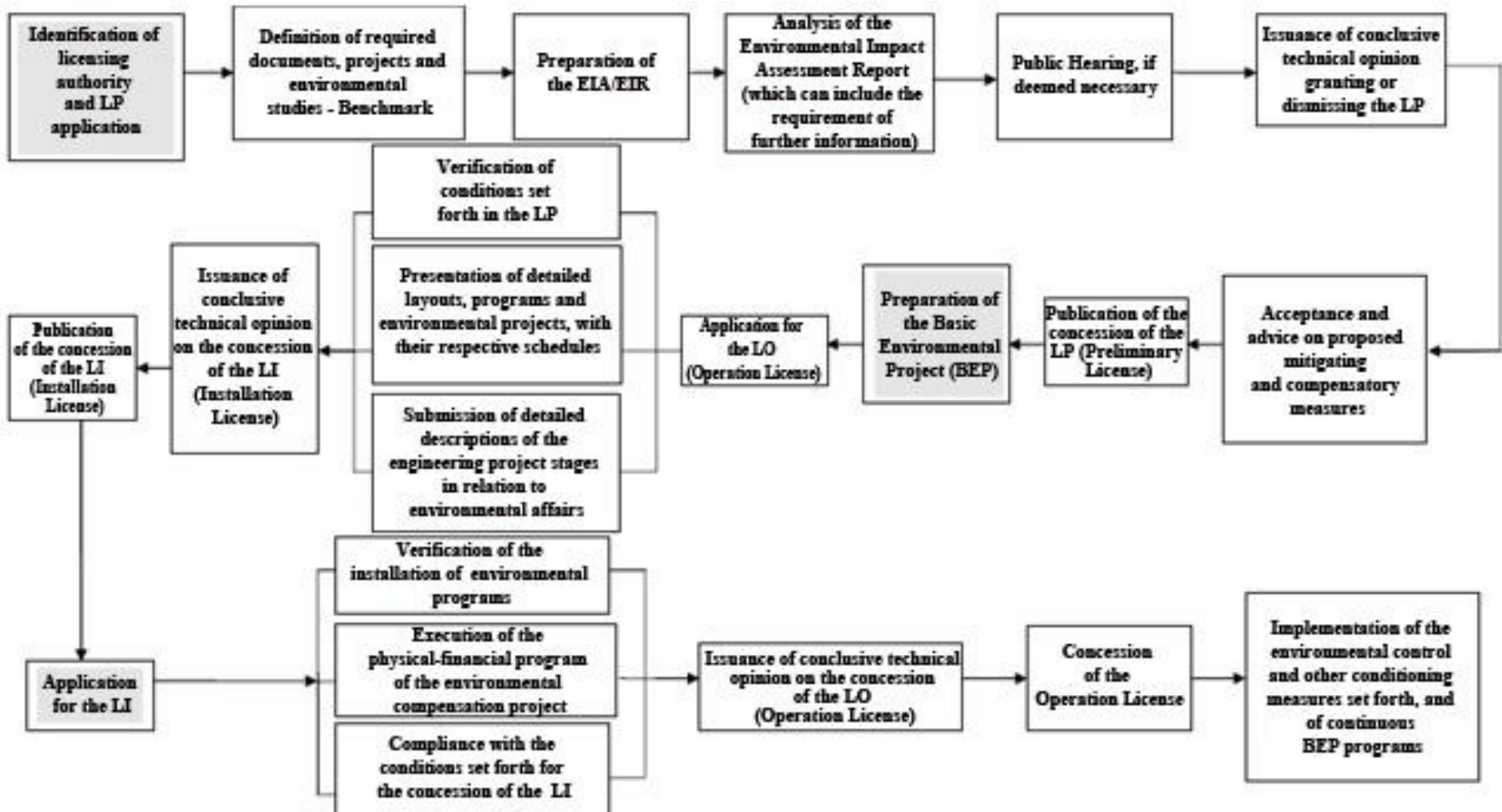
In accordance with the ACM002 methodology (version 13), for hydro power project activities that result in new single or multiple reservoirs:

- The methodology is not applicable if the power density is less or equal to  $4 \text{ W/m}^2$ ;
- $\text{CH}_4$  and  $\text{CO}_2$  emissions from the reservoir shall be accounted if the power density of the project activity is greater than  $4 \text{ W/m}^2$  and less than or equal to  $10 \text{ W/m}^2$  and;
- Emissions from water reservoir are set to zero if the power density of the project activity is greater than  $10 \text{ W/m}^2$ .

The power density of Teles Pires Project is  $13.51 \text{ W/m}^2$ , *i.e.*, greater than  $10 \text{ W/m}^2$ , no emissions have to be considered from the project reservoir.

# ENVIRONMENTAL LICENSING

## Brazilian Licensing Process:



# ENVIRONMENTAL LICENSING



Teles Pires Hydropower Plant Project has licenses issued by the Brazilian Institute of Environment and Natural Resources:

License	Number	Issuance	Validity
<i>Preliminary License</i>	386	13 December 2010	12 December 2012
<i>Installation License</i>	818	19 August 2011	18 August 2015

# ENVIRONMENTAL PROGRAMS

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The proposed programs were developed and targeted to meet a regional level plan in order to prepare the region for receiving the project in a sustainable manner. The set of socio-environmental programs (called Environmental Management Plan) can be characterized as a management tool that aims to ensure the overall implementation of commitments made by the contractor, with regard to the proper environmental and social management of the enterprise and to comply with the applicable environmental legislation. The Plan was developed and is being implemented through five axis of action, as follows:

## ***Axis 1 – Programs directly linked to the construction***

- Environmental plan for the construction
- Deforestation and reservoir associated areas cleaning
- Recruitment and demobilization of manpower
- Fish rescue in affected areas

# ENVIRONMENTAL PROGRAMS

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## ***Axis 2 – Monitoring, control, management and conservation plan***

- Seismicity monitoring
- River slopes stability and erosion processes monitoring
- Groundwater monitoring
- Seeds and seedlings rescue and implementation of seedling nursery
- Hydro-sedimentary monitoring
- Fauna scientific rescue
- Water limnological and quality monitoring
- Climate monitoring
- Fauna monitoring
- Malaria action and control plan
- Cultural historical and archaeological heritage preservation

# ENVIRONMENTAL PROGRAMS

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## Axis 3 – Compensatory programs

- Implementation of the reservoir permanent preservation area
- Loss of land and economic activities disruption compensation
- Labor re-insertion and local economic activities support
- Environmental compensation – conservation unit
- Tourism activities support and revitalization
- Social infrastructure strengthening
- Forest restoration



# ENVIRONMENTAL PROGRAMS



## Axis 4 and 5 – Support and special programs

- Social communication
- Environmental education
- Environmental conservation plans and reservoir environs use



*Environmental Education Program is presented to the residents of community of São Pedro, at Paranaíta municipality.*

Source: Teles Pires Project website:  
<<http://www.uhetelespires.com.br/site/category/especiais/meio-ambiente/#body>>.

# PUBLIC CONSULTATION



City	Date	Local	Number of Participants
<b>Paranaíta (MT)</b>	20/11/2010	Escola Estadual João Paulo I	711
<b>Alta Floresta (MT)</b>	21/11/2010	Centro de Tradições Gaúchos (CTG)	384
<b>Jacareacanga (PA)</b>	23/11/2010	Clube Emoções	395

# PUBLIC HEARINGS



**Banner located in main square of Paranaíta municipality**



**Banner in the street of Jacareacanga municipality**



**Banner located in front of a local market at Alta Floresta municipality**

# PUBLIC MEETINGS



**Paranaíta municipality**



**Alta Floresta municipality**



**Jacareacanga municipality**

# REFERENCES



1. UNFCCC (2009). Decision 5/CMP.5, paragraph 11. Available at: <<http://unfccc.int/resource/docs/2009/cmp5/eng/21a01.pdf#page=19>>.
2. Interministerial Committee on Climate Change (from the Portuguese "*Comitê Interministerial sobre Mudança do Clima*"), 2008. National Plan on Climate Change ("PNMC" from the Portuguese "*Plano Nacional sobre Mudança do Clima*").
3. Communication from the Government of Brazil to the UNFCCC indicating the intended nationally appropriate mitigation actions, the use of the CDM not excluded (29 January 2010). Retrieved on 04/10/2011 from <[http://unfccc.int/meetings/cop\\_15/copenhagen\\_accord/items/5262.php](http://unfccc.int/meetings/cop_15/copenhagen_accord/items/5262.php)>.
4. Kumar, A., T. Schei, A. Ahenkorah, R. Caceres Rodriguez, J.M. Devernay, M. Freitas, D. Hall, Å. Killingtveit, Z. Liu, 2011: Hydropower. In IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation [O. Edenhofer, R. Pichs Madruga, Y. Sokona, K. Seyboth, P. Matschoss, S. Kadner, T. Zwickel, P. Eickemeier, G. Hansen, S. Schlömer, C. von Stechow (eds)], Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.
5. Demarty, M., J. Bastien (2011). GHG emissions from hydroelectric reservoirs in tropical and equatorial regions: Review of 20 years of CH4 emission measurements. *Energy Policy* 39 (2011) 4197-4206.
6. Rosa, L.P., Matvienko, B., Santos, M.A., Sikar, E., Xavier, A.E., Santos, E., Menezes, C.F., Luorenc-o,R.S.M., 2002. Carbon dioxide and methane emissions from Brazilian hydroelectric reservoirs: background report. Brazilian Ministry of Science and Technology.
7. Fearnside, P.M. (2002). Greenhouse gas emissions from a hydroelectric reservoir (Brazil's Tucuruí Dam) and the energy policy implications. *Water Air and Soil Pollution* 133 (1–4), 69–96.
8. Brazilian Institute of Environmental and Renewable Natural Resources (from the Portuguese "*Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis – IBAMA*"). Computerized system of national environmental licensing (from the Portuguese "*Sistema Informatizado de Licenciamento Ambiental Federal*"). Available at : <<http://www.ibama.gov.br/licenciamento/>>.
9. Brazil's federal environmental entities are the policy-setting National Environmental Council (CONAMA from the Portuguese "*Conselho Nacional do Meio Ambiente*") and the policy-enforcing IBAMA.