Reference: Clarifications on issues associated with issuance request for review - Ceran's Monte Claro Run of River Hydropower Plant CDM Project Activity (0773)

In the following text the request for review to the PP/DOE are *italicized* and the comments of the Project Participants (PPs) are given in blue.

Request 1 and 3

1. The DOE raised two corrective request actions (CAR1 and CAR2) regarding the fact that the monitoring report was not in accordance with the registered monitoring plan. However, the verification report did not provide sufficient information on how the DOE revolved these two CARs. Further clarification is required.

According to the PP's answers regarding CAR 1 and CAR 2 and clarifications regarding Request 2 below, Ceran's Monte Claro Run of River Hydropower Plant CDM Project Activity Monitoring Plan is being carried out according to the description in the registered PDD. All monitoring procedures were verified and documents supplied to the DOE. DOE explanations regarding Verification Report are being submitted together with the present clarification.

Request 2

1. The monitoring plan included in the PDD, validated and registered, has not been appropriately applied. The section D.2.1.3 of the PDD states that the recording frequency of EGy is "15 minutes-measurement and monthly recording". However, the Monitoring Report did not provide the relevant information as per requirement. Further clarification is required.

The monitoring involves the following entities:

I – CERAN: it has the responsibility to check, calibrate its four meters and also to backup data of the energy generated during the credit period plus two years. Ceran sends information on energy generation to CPFL Comercialização Brasil S/A.;

II – CCEE: receives information on energy generation provided by CPFL Comercialização Brasil S/A through Sinercom software and writes up and monitors all the energy in the Brazilian national grid;

III – CPFL Comercialização Brasil S/A: was hired by CERAN to be responsible for all work that involves any relationship with CCEE. CPFL Comercialização Brasil S/A is responsible for the correct information of the energy generation data to CCEE, which checks the data. Besides that, CPFL Comercialização Brasil S/A has to verify and confirm the information reported by CCEE on the amount of energy supplied by its system at the Monte Claro Hydropower Plant.

Dispatched energy data are collected in real time by the four meters and, later, stored in the meters database with five minutes measuring intervals. Every first day of each month, a System Technician from the Maintenance Department collects data on the gross and net energy from the meters database, related to the previous month. Then, sheets with consolidated hourly

energy data are generated. The Maintenance Department is also responsible for preparing and storing backups of the information on energy generation during 9 years, considering crediting period plus two years.

The Operation Coordinator – from the Operation Department - analyses the data collected and the total monthly energy collected by the System Technician. Afterwards, he sends energy data monthly to CPFL Comercialização Brasil S/A and stores this information in the data server. When information is received, CPFL inserts the data at CCEE's website through Sinercom software.

In summary, measurement is done in a continuous way and data are collected every five minutes (measurement interval). From the raw data collected, first hourly (for internal use) and then monthly (to be sent to CCEE), consolidations are made.

CCEE determinates the utilization of a standard rule (*Instalação de Medição e Faturamento*, annex 1) from the National Electric System Operator (from the Portuguese *Operador Nacional do Sistema Elétrico – ONS*), where energy readings have to be registered every five minutes in the meters database. Given that, the net and gross energy meters utilized by UHE Monte Claro are programmed for five minutes-measurement, with a frequency greater than established in the Monitoring plan of the registered PDD. Meters utilized in Monte Claro are specified by CCEE (annex 2) and net meters (model 5CTE, manufacturer: ZIV) are capable to integrate and register the energy with a frequency from one to sixty minutes (annex 3).

Considering the explanations above, Ceran's Monte Claro Run of River Hydropower Plant CDM Project Activity Monitoring Plan is being carried out according to the description in the registered PDD. All the above mentioned procedures were verified and documents supplied to the DOE. Revised Monitoring Report (version 3), including the information above, is being submitted together with the present clarification.

2. The DOE verified that the project participant has correctly applied the registered monitoring plan and the approved methodology. During the site-visit, the DOE checked the calibration certificates of the installed meters. The DOE verified the calculation of the emission reductions. The DOE raised three corrective request actions (CARs) regarding the inconsistency between the monitoring report, monitoring plan and the calibration certificates. However, the verification report did not provide sufficient information on how the DOE resolved the two CARs regarding the inconsistency between the monitoring report and the registered monitoring plan. Further clarification is required.

According to the PP's answers regarding CAR 1 and CAR 2 and clarifications regarding Request 2 below, Ceran's Monte Claro Run of River Hydropower Plant CDM Project Activity Monitoring Plan is in being carried out according to the description in the registered PDD. All monitoring procedures were verified and documents supplied to the DOE. DOE explanations regarding Verification Report are being submitted together with the present clarification.

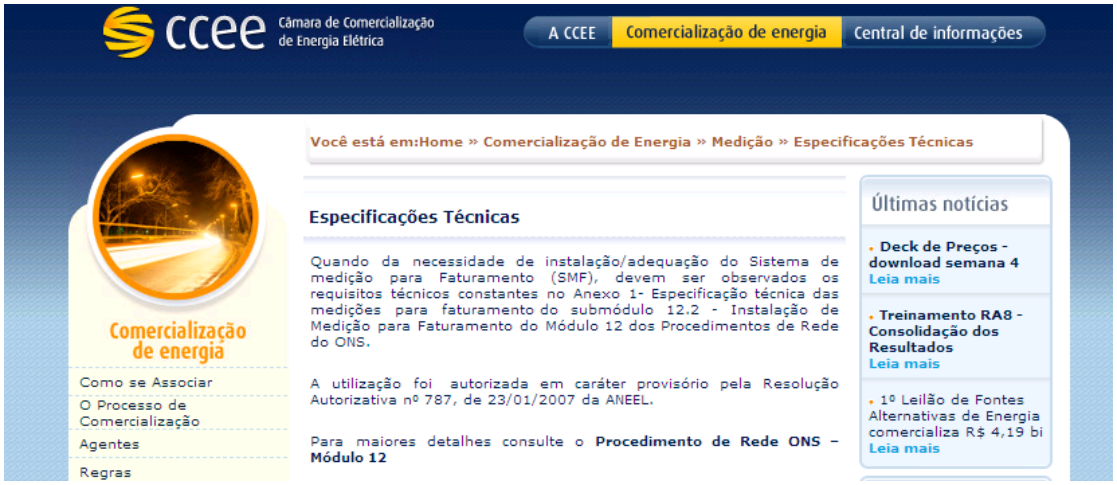
3. The DOE did not provide the information regarding the "Interviews with the project participants and local stakeholders". Further information is required.

DOE explanations regarding the "Interviews with the project participants and local stakeholders" are being submitted together with the present clarification.

4. By stating that "the verification checklist is used as an internal report only", the DOE did not disclose this checklist. This information shall be provided to facilitate the appraisal of the verification activities performed by the DOE.

DOE verification checklist is being submitted together with the present clarification.

ANNEX 1 – CCEE website. About the utilization of standard *"Instalação de Medição para Faturamento"*.
Source:
http://www.ccee.org.br/cceeinterdsm/v/index.jsp?vgnextoid=870da5c1de88a010VgnVCM100000aa01a8c0RCRD



ANNEX 2 – CCEE website on meters specifications.

Source:
www.ccee.org.br/cceeinterdsm/v/index.jsp?vgnextoid=ca4da5c1de88a010VgnVCM100000aa01a8c0RCRD

ANNEX 3 – 5CTE meter manual (page 43).

6.10 Registrador

Esta função tem como objeto registrar as evoluções da carga no ponto de medida.

6.10.1 Perfis de carga

O medidor dispõe de dois registradores, um estandar (fixo) e outro programável por ajustes.

Se dispõe (em ambos registradores) de dez canais de perfis de carga sendo fixos seis deles: dois para as energias ativas e quatro para cada uma das energias reativas. Nos quatro canais restantes poderão ser selecionadas quatro das medidas disponíveis no equipamento relativas à qualidade de serviço.

Os valores registrados são recolhidos, via comunicações. Visualizam-se os perfis em unidades de energia (kWh). Também se armazena uma etiqueta de tempo (data e hora) associada a cada registro e que indicará o final do mesmo.

Podem recolher os registros como valores acumulados absolutos ou como incrementos do acumulador de energia no período de tempo operativo (fixo em 60 min. para o registrador estandar ou ajustável entre 1 e 60 minutos com base nos divisores interos de 60 para o registrador programável).

A hora de recolher os perfis, pode pedir a autenticação dos mesmos mediante a verificação da assinatura digital (se previamente tiver sido configurada uma assinatura ao equipamento). Esta opção é desativada, quando se recolhem resumos diários.

6.10.2 Memória de armazenamento

A capacidade total de ambos registradores é de 13360 registros que se podem partilhar mediante páginas de memória entre os dois registradores disponíveis, um estándar, com um tempo de integração de 60 minutos e outro programável com um período de integração ajustável entre 1 e 60 minutos baseado em divisores inteiros de 60. Desta forma, se dedicamos uma única página para a curva de carga horária e o restante (31 páginas) a uma curva de carga de 5 minutos, disporíamos de um total de 46 dias de registros de 5 minutos e 17 dias de registros horários.

O armazenamento dos registros se realiza em memória RAM com bateria em um buffer circular. Uma vez lida a memória de registro, o seguinte registro, se armazenará sobre o mais antigo dos armazenados. Se retira a bateria, se apagam os registros de perfis de carga além da data e hora do medidor.