

# Training on Energy Efficiency Indicators for EPE - Report

Elaborado por:

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Para:

**Deutsche Gesellschaft für  
Internationale Zusammenarbeit (GIZ) GmbH**

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*Fontes  
Renováveis e  
Eficiência  
Energética*



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**Coordenação:** Ludmilla Diniz (GIZ), Torsten Schwab (GIZ),  
Jeferson B. Soares (EPE), Ricardo Gorini (EPE)

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## Context and objectives

This report presents the training activity performed by Enerdata in EPE premises with the support of GIZ, from September 16-16 2011. This activity aimed at training EPE staff on energy efficiency indicators using the experience of the ODYSSEE project in Europe.

This training takes places in a context where energy efficiency has become increasingly important in energy planning in Brasil. It was incorporated within the legal competences (law 10.847/04) of EPE (Empresa de Pesquisa Energética), the state owned company under the Ministry of Mines and Energy (MME). Within this context, EPE's modelling and forecast methodologies undergo a constant refinement. In the context of the technical cooperation program between Brazil and Germany, the EPE and GIZ (Deutsche Gesellschaft für Internationale Zusammenarbeit mbH) cooperate in order to refine energy efficiency related methodologies and instruments for energy planning.

The National Energy Plan 2030 assumes significant energy savings due to energy efficiency programs. Policies and measures on energy efficiency have to be accompanied by a sound monitoring and evaluation instruments. Therefore EPE is presently designing and implementing a national database on energy efficiency indicators, which has some similarities with the European project on energy efficiency indicators called ODYSSEE.

This training represents a step towards the successful implementation, completion and utilization of a Brazilian database on energy efficiency indicators. Its objective is to build up capacity connected to respective database at EPE by providing insights on international expertise. Through the training and accompanying supporting documents, the objective for the EPE team was to acquire a knowledge base of best practices and to enable them to successfully launch its database and identify further steps ahead.

The training was performed by B Lapillonne from Enerdata, who has a large international experience and knowledge on energy efficiency indicators and is coordinating the European project on ODYSSEE indicators.

Given the scope of the activity of the EPE team dealing with indicators and their involvement on energy demand projections, the training also established regularly the link between indicators, as measured from statistics, and their use in energy demand forecasting models, based on the experience in France and in the EU.

In addition, as a key issue with extending the indicators, as already developed at EPE, is the data issue, presentations were added on the way missing data are collected in Europe, taking the experience from various countries, considered as a good reference (e.g. Germany and Sweden for buildings, France and Ireland for Transport, and France for industry).

## Organization of the training

Enerdata prepare the detailed agenda and implemented the on-site training at EPE. It developed the corresponding documents (presentation slides, examples etc.) in advance, so that EPE staff could check if they met their expectations and to possibly adapt the context. The presentations were sent to GIZ representative, Ludmilla DINIZ, on September 9. Taking into account some adjustments based on questions and additional preoccupations from EPE staff during the training, most presentations were revised and additional presentations were added.

The final versions were left to GIZ representative at the end of the workshop to be dispatched to EPE staff.

The training was attended by all the staff concerned for the first day and for the other day by the various staff concerned, depending on the sector. GIZ representative, Ludmilla DINIZ, attended all the sessions, as well as, from the second day, the Director of the unit in charge efficiency, Mr Ricardo GORINI, who showed a great interest in all sectors and came up with a lot of interesting questions. The participants from EPE are given in Annex 1.

The agenda for the training was the following:

- **1<sup>st</sup> day - ODYSSEE workshop and Brazilian background**
  - Enerdata: Introduction of ODYSSEE to EPE: applied methodology; experiences made during the implementation of ODYSSEE with a focus on constraints, difficulties and lessons learned.
  - Introduction by EPE of the Brazilian background (energy efficiency policy, existing work on indicators).
  
- **2nd and 3rd day - comparability and convergence workshop:** sector-wise approach.
  - Each sector was introduced by a presentation of the indicators developed by sector in ODYSSEE and of data issues;
  - EPE reacted then to present its experience in Brazil with data and indicators that they have developed;
  - Discussion were also held on the possible differences between EPE indicators and ODYSSEE indicators and on the conditions of comparability, as well as on the way to improve the data collection at EPE;
  - Presentations and explanations on the data and indicators found in the on line ODYSSEE data base were also given;
  - Examples of surveys carried out in selected reference countries were also given by Enerdata.
    - **2<sup>nd</sup> day**
      - Transport sector
      - Industry sector
    - **3<sup>rd</sup> day**
      - Household sector
      - Service sector
  
- **4th day – data availability and IT/communication workshop**
  - Enerdata: International concepts and experiences of the consultancy to handle absence of data/ lack of data sources and steps to be taken in order to obtain these data are presented. Enerdata presented the data template, which is actually used to collect ODYSSEE data;
  - EPE: presentation of IT concepts concerning the communication with other institutes serving as data sources are demonstrated.

## Conclusions and proposed follow-up actions

After having participated in the workshop, it is expected that EPE specialists should be able to better compare their own indicators with ODYSSEE indicators, to understand the differences between both, to identify next steps, in particular in view of collecting additional data, and to design action plans to achieve convergence.

In view of this objective of convergence one possibility would be for EPE to input its own data in the ODYSSEE data template used by each EU countries, so as to benefit from the various features of the template:

- Organisation of the data by sector and as time series;
- Data consistency controls;
- Calculation of the indicators as in ODYSSEE;
- Automatic graphs for each of the indicators enabling immediate validation of the indicators;
- A better identification of data need and their mode of expression ;
- Additional sheets to calculate enhanced indicators ,such as ODEX or Divisia intensity at constant structure;
- Additional procedures to estimate some missing data on the energy consumption by end-use;

If such a solution was selected by EPE the approach could be the following:

- Enerdata would send the data template to EPE
- EPE would then download its own data in the template with the assistance of Enerdata
- Then a meeting could take place at EPE after 6 months to advise EPE on how to increase the data collection, based on the experience from other countries, and to prepare the estimate of additional data.
- Enerdata could be a link with other EU ODYSSEE partner to get access to necessary survey questionnaires, would EPE wish to undertake some surveys.
- Enerdata could also assist , through its in house computer experts, EPE data base specialists
- If necessary the assistance to EPE could extend over one year with a second mission being carried out within one year.

## Participants to the training

<b>Name</b>	<b>First name</b>	<b>Function/ Department</b>	
GORINI	Ricardo	Superintendente/Manager	EPE
SOARES	Jefferson	Directorate of Energy Resources	EPE
PEREIRA	Ismael	Directorate of Economy, Energy & ambient Resources, in charge of data bases	EPE
ROSA	Flavio	Office of Energy Markets and Economic Analysis, Energy Research Analyst	EPE
OLIVEIRA	Luiz	Office of Energy Markets and Economic Analysis, Energy Research Analyst	EPE
ACHAO	Carla	Office of Energy Markets and Economic Analysis, Technical Consultant 5houshold and services)	EPE
MORAES	Natalia	Office of Energy Markets and Economic Analysis, Technical Consultant (in charge of transport)	EPE
DINIZ	Ludmilla	Energy Programme	GIZ

## Support of training

The documents used as a support for the training were gathered in 5 documents as follows:

- Introduction and overview of ODYSSE indicators
- Industry indicators and surveys
- Transport indicators and surveys
- Households & service indicators and surveys
- Data base