Training

Understanding core principles & international energy accounting regulations

Objective

Upon completing the training session participants will be able to :

- Create an energy balance, including supply, transformation and consumption
- Understand international energy accounting regulations, particularly the energy flows, energy units, and the definitions and agreements established at a national level

Who will benefit

Those who wish to acquire working knowledge of energy accounting, or those who wish to perfect their understanding.

Teaching method

All seminars are animated by international experts with more than 15 years of experience in the energy sector. Case studies will be explored to put into practice the concepts learnt during the seminar. Quality teaching materials will be provided.

Duration: 2 days
Date:21-22 January, 2010 (French)
20-21 January 2011 (French)
Location: Paris
Tuition: from 950 €
Meals and refreshments included

www.enerdata.fr / Training

Contact Information & Registration

Nathalie Pelikan
T: +33 (0)1 49 26 09 43
F: +33 (0)1 42 60 22 62
Email: training@enerdata.fr
www.enerdata.fr

Other options available:
-Corporate workshops
-Customized workshops

Program

Session 1 – Energy accounting basics
Energy flow measurements, energy and measurement unit equivalencies, definition and structure of energy balance

Session 2 – Accounting for primary energy supply
Primary production, imports/exports, international bunkers, stock variations, primary supply

Session 3 - Accounting for input/output of energy transformation
Electricity sector, refining sector, and other transformations

Session 4 - Accounting for final energy consumption
Industrial, residential, tertiary, transport and other sectors

Session 1 (morning) – Energy accounting basics

Measuring energy flow (30')

- Definition: main flows in the energy system
- Principles and accounting methods to energy
- Main physical units systems

Energy and measurement unit equivalencies (60')

- What is the problem?
- Energy content principle: method, application, NCV/GCV
- Main energy units
- International conversion system for physical and energy units
- Application exercise

Definition and structure of energy balance (60')

- The purpose of energy balance
- Construction method and accounting principles
- Energy balance structure

Session 2 (afternoon) – Accounting for the primary energy supply

Primary production: domain, definitions, measurements, equivalencies (30')

- Crude oil and oil products
- Natural gas
- Coal & Lignite
- Primary energies: nuclear, hydraulic, wind, solar,…
- Other energies: biomass, solar, thermal…

Imports / exports : domain, definitions, measurements, equivalencies (15')

- Gross oil and oil products
- Natural gas: transportation issues
- Electricity

Marine Bunkers (15'): marine, air

Stock variations: domain, definitions, measurements, equivalencies (15')

- Gross oil and oil products
- Gas, coal

Primary supply:domain, definitions, measurements, equivalencies (30')

- Gross oil and oil products
- Natural gas, coal
- Electricity
- Other energies: biomass, solar thermal,…

Case studies(60')

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training@enerdata.fr

Session 3 (morning) – Accounting for input/ output in energy transformation

Electricity sector: domain, definitions, measurements, accounting principles (45')
- Original thermal electricity production: input, output, gross/net
- Electricity production from nuclear & renewable electricity (hydro-electricity, solar, wind power, geothermal): input, output, gross/net
- Autoproduction
- Co-generation electricity / heat
- Loss and autoconsumption

Refining sector: domain, definitions, measurements, accounting principles (20')
- Refinery entrances
- Returns and transfers
- Refinery production, gross / net
- Loss and autoconsumption

Other transformations: domain, definitions, measurements, accounting principles (25')
- Natural gas: loss and autoconsumption in transport
- Biomass energy transformation
- District heat production

Case studies(60')

Session 4 (afternoon) – Accounting for final energy consumption

Industrial sector: domain, definitions, measurements, accounting principles (30')
- Definition and perimeter of the industrial sector for energy accounting
- Electricity & Gas
- Oil products
- Coal
- Other energies: biomass, waste, district heat…

Residential sector: domain, definitions, measurements, accounting principles (30')
- Definition and perimeter of the residential sector for energy accounting
- Electricity & Gas
- Oil products
- Other energies: biomass, waste, solar energy…

Tertiary sector: domain, definitions, measurements, accounting principles (30')
- Definition and perimeter of the tertiary sector for energy accounting
- Electricity & Gas
- Oil products
- Other energies: biomass, waste, solar thermal…

Transport sector: domain, definitions, measurements, accounting principles (30')
- Definition and perimeter of the transport sector for energy accounting
- Electricity & Gas
- Oil products & Biofuel

Other sectors: domain, definitions, measurements, accounting principles (30')
- Agriculture
- Energy commodities

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