



# Energy Balance Evaluation

## Key Values

Project Name: AC Project Info / Project Name  
 Project Location: ED Location Name  
 Activity Type: ED Activity Profile Name  
 Evaluation Date: 2009.03.19. 6:12 PM

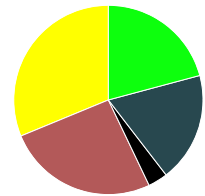
Heated floor area: **650** m<sup>2</sup>  
 Ventilated volume: **2150** m<sup>3</sup>  
 Outer heat capacity: **123,21** J/m<sup>2</sup>K

**Calculated heat transfer coefficients:**  
 U values [W/m<sup>2</sup>K]

Building shell average: **0,13**  
 Roofs: **0,23 - 0,45**  
 External walls: **0,45 - 0,65**  
 Basement walls: **0,15 - 1,02**  
 Openings: **1,85 - 4,87**

## Energy Consumption

Source	Yearly total		Yearly specific	
	kWh/year	USD/year	kWh/m <sup>2</sup> ,year	USD/m <sup>2</sup> ,year
30 % Gas	8500	1850	13,08	13,08
28 % Oil	8900	700	13,69	13,69
03 % Coal	4	120	0,03	0,03
18% Electricity	890	490	8749,00	8749,00
16 % Wood	60	14	9,23	9,23
<b>Total:</b>	<b>31500</b>	<b>31500</b>	<b>8749.00</b>	<b>8749.00</b>



**31500 kWh**  
**8749.00 kWh/m<sup>2</sup>**

## Carbon Footprint

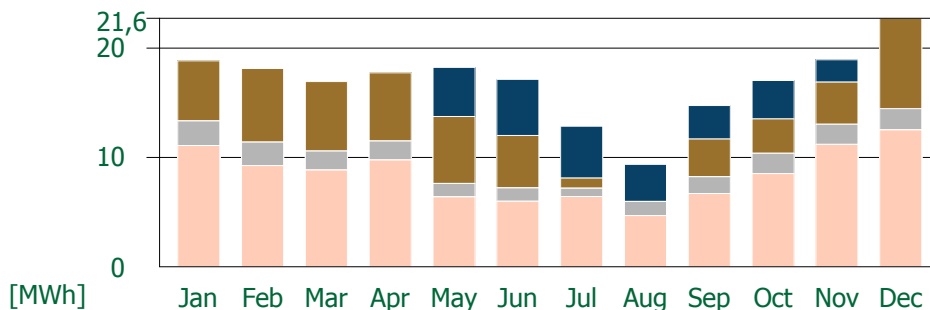
CO<sub>2</sub> emission as a result of operating this building is **85.6** tonne/year.

This amount of CO<sub>2</sub> is absorbed in one year by 42,8 hectares (equivalent to 57 football fields) of tropical forest.



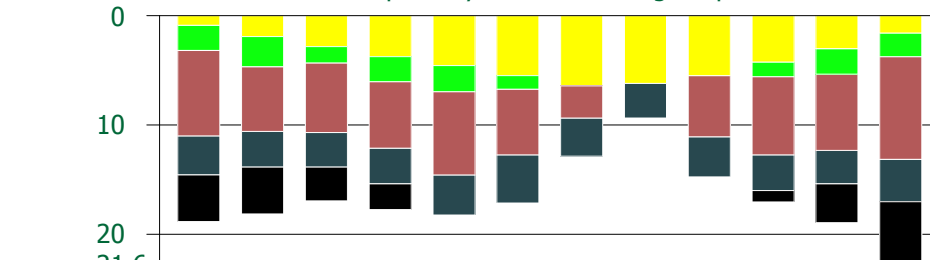
## Monthly Energy Balance

Emitted energy per Month



- Natural cooling
- Natural ventilation
- Infiltration
- Transmission

Supplied energy per Month



- Solar gain
- Recovered energy
- Internal heat gain
- Supplied electricity need
- Supplied heat need