Evaluation ENERBUILD-Tool – Planned Building now in construction

[Alessandria's construction's building]

Palazzo dell'Edilizia

1 Basic information about the building

Name of the building	Palazzo dell'Edilizia – Designer : Arch Daniel Libeskind
Address of the building	Via Marengo, near of Napoleone's Platano
Owner/investor	Sistema Edile di Alessandria
Year of construction	2011
Building type	Terziary Building (offices and school)
Building method	Reinforced concrete frame and external insulation
Number of buildings	1
Number of levels above earth	4
Number of levels underground	1
Kind of the public use	Educational use, offices and conference rooms
Effective area for public use in m ² (net)	0
Additional private uses	-
Effective area for private use in m ² (net)	4.255,43
Total effective area in m ²	4.255,43
Source of energy for heating	Electric energy and geothermal energy
Heating system	Heat pump 277 kW
Water heating system	Heat pump
Date of the building evaluation	20/07/2011

2 Execution of the building evaluation with the ENERBBUILD tool

Responsible Organisation: Collegio Costruttori ANCE Alessandria

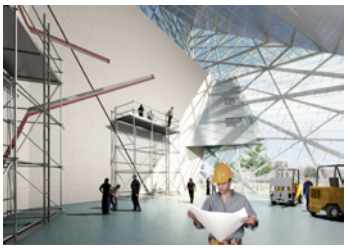
Contact person: Claudio Mazzetto, Stefano Ponzano

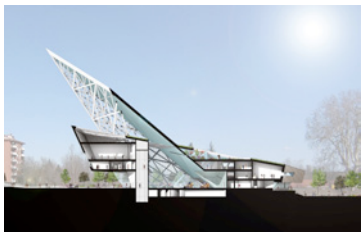
Collaborazione: arch. Daniela Demartini

Telephone:+390131265724 Email: area.tecnica@cce.al.it

3 Results

Nr.		Title	Must criteria (M)	max. points	evaluated points
A		Quality of location and facilities		max. 100	**57,50**
A	1	Access to public transport network		50	20
A	2	Ecological quality of site		50	37,50
B		Process and planning quality		max. 200	**185**
B	1	Decision making and determination of goals		25	25
B	2	Formulation of verifiable objectives for energetic and ecological measures	M	20	20
B	3	Standardized calculation of the economic efficiency	M	40	40
B	4	Product-management - Use of low-emission products		60	20
B	5	Planning support for energetic optimization		60	55
B	6	Information for users		25	25
C		Energy & Utilities (Passive house)		max. 350	**230**
C	1	Specific heating demand (PHPP)	M	100	100
C	2	Specific cooling demand (PHPP)	M	100	0
C	3	Primary energy demand (PHPP)	M	125	85
C	4	CO2-emissions (PHPP)		50	45
D		Health and Comfort		max. 250	**175**
D	1	Thermal comfort in summer		150	75
D	2	Ventilation - non energetic aspects		50	50
D	3	Daylight optimized (+ lightening optimized)		50	50
E		Building materials and construction		max. 200	**132**
E	1	$OI3_{TGH-le}$ ecological index of the thermal building envelope (respectively OI3 of the total mass of the building)		200	132
Sum				max. 1000	**779,50**





4 Conclusions from the building evaluation with the ENERBUILD-Tool

a) Generally
the evaluation was quite laborious for the amount of information that was necessary to find and sometimes difficult for the foreign laws with which we had to compare.

b) About the planning process
for the evaluation of the planning process is essential to have written documentation produced during the entire design process that does not always exist. Some criteria have therefore been discussed to see if some types of available documents (minutes, reports, etc. ..) could be considered suitable.

c) About the building itself
the size of the building project, important both in terms of size and shapes, technological solutions and systems adopted, helped make quite complex to evaluate

d) About the evaluation process
About the evaluation process, in addition to the comments contained in letter b), there were also critical of the following criteria:
B3: the formula given for the simplified calculation of the cost of the life cycle was not immediately clear because of lack of methodological information attached;
E1: it was quite complicated to use the software for calculating ECOSOFT not having been provided a user manual of the program.

5 Suggestions for improvement of the ENERBUILD-Tool

We believe it's basic to provide to all technical Enerbuild compilers and users of related software (suggested or required by the catalog) all indispensable instruments so that the response criteria may be unique, comparable and therefore not susceptible to subjective free interpretation. To this end, for example, would be useful to attach to the catalog of criteria Enerbuild user manuals for suggested softwares or cited laws's extracts, if foreig