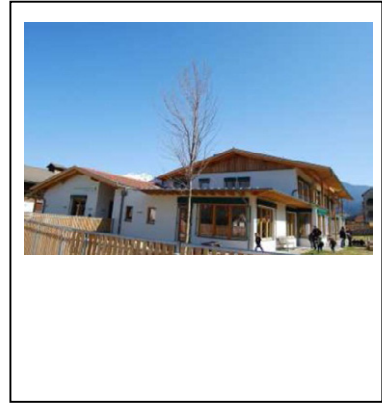


Evaluation ENERBUILD-Tool – existing buildings

Kindergarden Brunneck



1 Basic information about the building

Name of the building	Kindergarden Brunneck
Address of the building	Hans Theodor Niederbacher Straße 4; 39031 Brunneck/Reischach (Bz) Italy
Owner/investor	Municipality of Brunneck
Year of construction	2008-2010
Planner	Arch. Georg Niederwieser, Ing. Peter Auer
Building type	Wood construction with prefabricated wooden frames.
Building method	Wooden frame with mineral wool insulation and external cork insulation.
Number of buildings	1
Number of levels above earth	2
Number of levels underground	1
Kind of the public use	Kindergarden
Effective area for public use in m ² (net)	983 m ²
Additional private uses	/
Effective area for private use in m ² (net)	/
Total effective area in m ²	983 m ²
Source of energy for heating	Biomass and gas delivered by district heating
Heating system	District heating
Water heating system	District heating
Date of the building evaluation	2010

2 Execution of the building evaluation with the ENERBUILD tool

Responsible Organisation: Eurac research, Institute for Renewable Energy

Contact person: Hannes Mahlkecht

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Email: hannes.mahlkecht@eurac.edu

3 Results

Nr.		Title	Must criteria (M)	max. points	evaluated points
A		Quality of location and facilities		max. 100	56
A	1	Access to public transport network		50	6
A	2	Ecological quality of site		50	50
B		Process and planning quality		max. 200	130
B	1	Decision making and determination of goals		25	15
B	2	Formulation of verifiable objectives for energetic and ecological measures	M	25	20
B	3	Standardized calculation of the economic efficiency	M	40	0
B	4	Product-management - Use of low-emission products		60	30
B	5	Planning support for energetic optimization		60	55
B	6	Information for users		25	10
C		Energy & Utilities (Passive house)		max. 350	329
C	1	Specific heating demand (PHPP)	M	100	54
C	2	Specific cooling demand (PHPP)	M	100	100
C	3	Primary energy demand (PHPP)	M	125	125
C	4	CO ₂ -emissions (PHPP)		50	50
D		Health and Comfort		max. 250	111
D	1	Thermal comfort in summer		150	65
D	2	Ventilation - non energetic aspects		50	25
D	3	Daylight optimized (+ lightening optimized)		50	21
E		Building materials and construction		max. 200	129
E	1	OI _{3-TGH-ic} ecological index of the thermal building envelope (respectively OI ₃ of the total mass of the building)		200	129
Sum				max. 1000	755

Evaluation ENERBUILD-Tool – existing buildings

Kindergarten Mühlen in Taufers



1 Basic information about the building

Name of the building	Kindergarten Mühlen in Taufers
Address of the building	J.-Beikircher-Allee 28, 39032 Mühlen (Bz) Italy
Owner/investor	Municipality of Sand in Taufers
Year of construction	2007
Planner	Arch. Johanna Niederkofler and Arch. Thomas Winkler
Building type	Massive construction
Building method	Concrete and brick walls with external insulation
Number of buildings	1
Number of levels above earth	2
Number of levels underground	1
Kind of the public use	Educational use: school with multifunctional rooms
Effective area for public use in m ² (net)	1350 m ²
Additional private uses	/
Effective area for private use in m ² (net)	/
Total effective area in m ²	1350 m ²
Source of energy for heating	Electric energy and geothermal energy
Heating system	Electrical floor heating system, electric post heating of air
Water heating system	Peripheral electric DHW boilers
Date of the building evaluation	2011

2 Execution of the building evaluation with the ENERBUILD tool

Responsible Organisation: Eurac research, Institute for Renewable Energy

Contact person: Hannes Mahlkecht

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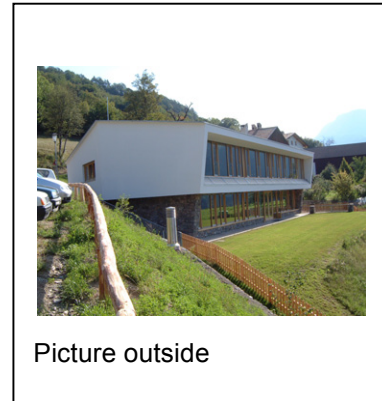
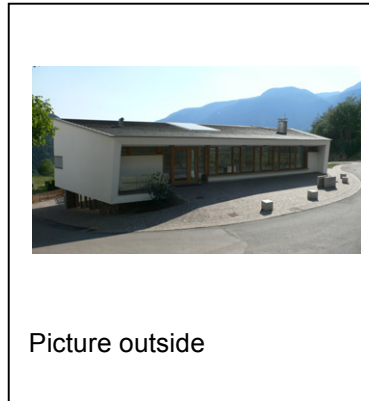
Email: hannes.mahlkecht@eurac.edu

3 Results

Nr.		Title	Must criteria (M)	max. points	evaluated points
A		Quality of location and facilities		max. 100	82
A	1	Access to public transport network		50	32
A	2	Ecological quality of site		50	50
B		Process and planning quality		max. 200	130
B	1	Decision making and determination of goals		25	5
B	2	Formulation of verifiable objectives for energetic and ecological measures	M	20	20
B	3	Standardized calculation of the economic efficiency	M	40	0
B	4	Product-management - Use of low-emission products		60	30
B	5	Planning support for energetic optimization		60	60
B	6	Information for users		25	15
C		Energy & Utilities (Passive house)		max. 350	336
C	1	Specific heating demand (PHPP)	M	100	76
C	2	Specific cooling demand (PHPP)	M	100	100
C	3	Primary energy demand (PHPP)	M	125	125
C	4	CO ₂ -emissions (PHPP)		50	35
D		Health and Comfort		max. 250	140
D	1	Thermal comfort in summer		150	65
D	2	Ventilation - non energetic aspects		50	25
D	3	Daylight optimized (+ lightening optimized)		50	50
E		Building materials and construction		max. 200	129
E	1	OI _{3-TGH-ic} ecological index of the thermal building envelope (respectively OI ₃ of the total mass of the building)		200	129
Sum				max. 1000	817

Evaluation ENERBUILD-Tool – existing buildings

Lajon School



1 Basic information about the building

Name of the building	Elementary school Lajon
Address of the building	Ried 141. 39040 Lajen (Bz) Italy
Owner/investor	Municipality of Lajon
Year of construction	2008-2006
Planner	Arch TV Trojer Vonmetz Architekten
Building type	Massive construction
Building method	Concrete walls with external insulation
Number of buildings	1
Number of levels above earth	2
Number of levels underground	0
Kind of the public use	Educational use: school with multifunctional rooms
Effective area for public use in m ² (net)	624,9m ²
Additional private uses	/
Effective area for private use in m ² (net)	/
Total effective area in m ²	624,9 m ²
Source of energy for heating	Electric energy and geothermal energy
Heating system	Heat pump 8,3kW
Water heating system	Heat pump with puffer store
Date of the building evaluation	2006

2 Execution of the building evaluation with the ENERBUILD tool

Responsible Organisation: Eurac research, Institute for Renewable Energy

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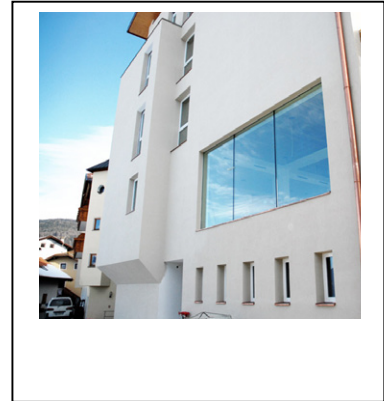
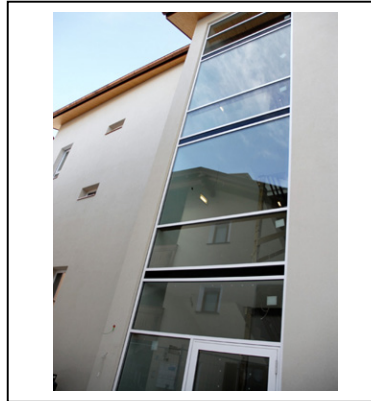
Email: hannes.mahlkecht@eurac.edu

3 Results

Nr.	Title	Must criteria (M)	max. points	evaluated points
A	Quality of location and facilities		max. 100	56
A 1	Access to public transport network		50	6
A 2	Ecological quality of site		50	50
B	Process and planning quality		max. 200	140
B 1	Decision making and determination of goals		25	15
B 2	Formulation of verifiable objectives for energetic and ecological measures	M	20	20
B 3	Standardized calculation of the economic efficiency	M	40	0
B 4	Product-management - Use of low-emission products		60	30
B 5	Planning support for energetic optimization		60	60
B 6	Information for users		25	15
C	Energy & Utilities (Passive house)		max. 350	350
C 1	Specific heating demand (PHPP)	M	100	100
C 2	Specific cooling demand (PHPP)	M	100	100
C 3	Primary energy demand (PHPP)	M	125	125
C 4	CO ₂ -emissions (PHPP)		50	50
D	Health and Comfort		max. 250	120
D 1	Thermal comfort in summer		150	65
D 2	Ventilation - non energetic aspects		50	25
D 3	Daylight optimized (+ lightening optimized)		50	30
E	Building materials and construction		max. 200	50
E 1	OI _{3-TGH-ic} ecological index of the thermal building envelope (respectively OI ₃ of the total mass of the building)		200	50
Sum			max. 1000	716

Evaluation ENERBUILD-Tool – existing buildings

Rest Home Lajon



1 Basic information about the building

Name of the building	Rest Home Lajon
Address of the building	Ried 141. 39040 Lajen (Bz) Italy
Owner/investor	Municipality of Lajon
Year of construction	2008-2010
Planner	De Biais & Comploi Architekten
Building type	Mixed construction with bearing reinforced concrete columns and reinforced concrete kerns
Building method	Concrete walls and brick-walls with external insulation
Number of buildings	1
Number of levels above earth	4
Number of levels underground	2
Kind of the public use	Rest home
Effective area for public use in m ² (net)	
Additional private uses	/
Effective area for private use in m ² (net)	/
Total effective area in m ²	m ²
Source of energy for heating	Electric energy and geothermal energy
Heating system	Heat pump 8,3kW
Water heating system	Heat pump with puffer store
Date of the building evaluation	2010

2 Execution of the building evaluation with the ENERBUILD tool

Responsible Organisation: Eurac research, Institute for Renewable Energy

Contact person: Hannes Mahlkecht

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3 Results

Nr.		Title	Must criteria (M)	max. points	evaluated points
A		Quality of location and facilities		max. 100	56
A	1	Access to public transport network		50	6
A	2	Ecological quality of site		50	50
B		Process and planning quality		max. 200	165
B	1	Decision making and determination of goals		25	20
B	2	Formulation of verifiable objectives for energetic and ecological measures	M	20	20
B	3	Standardized calculation of the economic efficiency	M	40	0
B	4	Product-management - Use of low-emission products		60	55
B	5	Planning support for energetic optimization		60	55
B	6	Information for users		25	15
C		Energy & Utilities (Passive house)		max. 350	302
C	1	Specific heating demand (PHPP)	M	100	87
C	2	Specific cooling demand (PHPP)	M	100	100
C	3	Primary energy demand (PHPP)	M	125	65
C	4	CO ₂ -emissions (PHPP)		50	50
D		Health and Comfort		max. 250	117
D	1	Thermal comfort in summer		150	65
D	2	Ventilation - non energetic aspects		50	25
D	3	Daylight optimized (+ lightening optimized)		50	27
E		Building materials and construction		max. 200	132
E	1	OI _{3-TGH-ic} ecological index of the thermal building envelope (respectively OI ₃ of the total mass of the building)		200	132
Sum				max. 1000	772