

## Evaluation ENERBUILD-Tool – existing buildings

### Kindergarten Bizau



#### 1 Basic information about the building

Name of the building	Kindergarten Bizau
Address of the building	6874 Bizau, Austria
Owner/investor	Municipality of Bizau
Year of construction	2009
Building type	Kindergarten
Building method	Wood construction
Number of buildings	1
Number of levels above earth	2
Number of levels underground	1
Kind of the public use	Kindergarten
Effective area for public use in m <sup>2</sup> (net)	440
Additional private uses	-
Effective area for private use in m <sup>2</sup> (net)	-
Total effective area in m <sup>2</sup>	440
Source of energy for heating	Heating oil
Heating system	Teleheating
Water heating system	Teleheating
Date of the building evaluation	-

## 2 Execution of the building evaluation with the ENERBUILD tool

Responsible Organisation: Spektrum GmbH, A-6850 Dornbirn, Austria

Contact person: DI Dr. Karl Torghele

Telephone: 0043 5572 208008

Email: karl.torghele@spektrum.co.at

Temperature for thermal comfort in summertime: 53 % > 26 °C

Local limits for heating demand: 19 kWh/m²a

## 3 Results

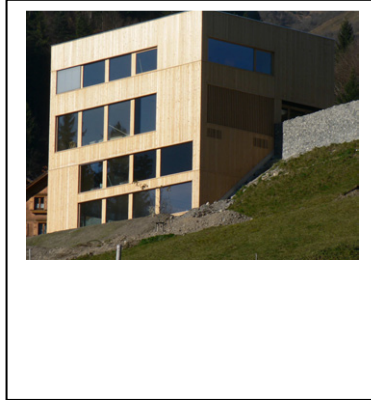


### Criteria

Nr.	Title	Must criteria (M); Minimum standard	max. points	Points
<b>A</b>	<b>Quality of location and facilities</b>		max. 100	50
A 1	Access to public transport network		50	20
A 2	Ecological quality of site		50	30
<b>B</b>	<b>Process and planning quality</b>		max. 200	200
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	35
B 4	Product-management - Use of low-emission products		60	60
B 5	Planning support for energetic optimization		60	60
B 6	Information for users		25	25
<b>C</b>	<b>Energy &amp; Utilities (Passive house)</b>		max. 350	264
C 1	Specific heating demand (PHPP)	M	100	84
C 2	Specific cooling demand (PHPP)	M	100	50
C 3	Primary energy demand (PHPP)	M	125	100
C 4	CO <sub>2</sub> -emissions (PHPP)		50	30
<b>D</b>	<b>Health and Comfort</b>		max. 250	60
D 1	Thermal comfort in summer		150	0
D 2	Ventilation - non energetic aspects		50	50
D 3	Daylight optimized (+ lightening optimized)		50	10
<b>E</b>	<b>Building materials and construction</b>		max. 200	192
E 1	OI <sub>3TGH-IC</sub> ecological index of the thermal building envelope (respectively OI <sub>3</sub> of the total mass of the building)		200	192
<b>Sum</b>			max. 1000	766

## Evaluation ENERBUILD-Tool – existing buildings

### Communal Center St. Gerold



#### 1 Basic information about the building

Name of the building	Communal Center St. Gerold
Address of the building	A-6722 St. Gerold, Faschinastraße 84, Austria
Owner/investor	Municipality of St. Gerold
Year of construction	2008/2009
Building type	Communal center
Building method	Wood construction
Number of buildings	1
Number of levels above earth	4
Number of levels underground	0
Kind of the public use	Kindergarten, administration, commerce
Effective area for public use in m <sup>2</sup> (net)	527
Additional private uses	-
Effective area for private use in m <sup>2</sup> (net)	-
Total effective area in m <sup>2</sup>	527
Source of energy for heating	Biomass
Heating system	Biomass
Water heating system	Biomass
Date of the building evaluation	-

## 2 Execution of the building evaluation with the ENERBUILD tool

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Contact person: DI Dr. Karl Torghele

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Temperature for thermal comfort in summertime: 0% > 25 °C

Local limits for heating demand: 14 kWh/m<sup>2</sup>

## 3 Results



### Criteria

Nr.	Title	Must criteria (M); Minimum standard	max. points	Points
<b>A</b>	<b>Quality of location and facilities</b>		<b>max. 100</b>	<b>47</b>
A 1	Access to public transport network		50	12
A 2	Ecological quality of site		50	35
<b>B</b>	<b>Process and planning quality</b>		<b>max. 200</b>	<b>200</b>
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	35
B 4	Product-management - Use of low-emission products		60	60
B 5	Planning support for energetic optimization		60	60
B 6	Information for users		25	25
<b>C</b>	<b>Energy &amp; Utilities (Passive house)</b>		<b>max. 350</b>	<b>350</b>
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 <sub>2</sub> -emissions (PHPP)		50	50
<b>D</b>	<b>Health and Comfort</b>		<b>max. 250</b>	<b>155</b>
D 1	Thermal comfort in summer		150	65
D 2	Ventilation - non energetic aspects		50	40
D 3	Daylight optimized (+ lightening optimized)		50	50
<b>E</b>	<b>Building materials and construction</b>		<b>max. 200</b>	<b>194</b>
E 1	OI <sub>3-TGH-IC</sub> ecological index of the thermal building envelope (respectively OI <sub>3</sub> of the total mass of the building)		200	194
<b>Sum</b>			<b>max. 1000</b>	<b>946</b>

## Evaluation ENERBUILD-Tool – existing buildings

### Kindergarten Thüringerberg



#### 1 Basic information about the building

Name of the building	Kindergarten Thüringerberg
Address of the building	A-6721 Thüringerberg, Jagdbergstraße 273, Austria
Owner/investor	Municipality of Thüringerberg
Year of construction	2010
Building type	Kindergarten, fire station
Building method	Wood construction
Number of buildings	1
Number of levels above earth	2
Number of levels underground	0
Kind of the public use	Kindergarten, fire station
Effective area for public use in m <sup>2</sup> (net)	430
Additional private uses	-
Effective area for private use in m <sup>2</sup> (net)	-
Total effective area in m <sup>2</sup>	430
Source of energy for heating	Biomass
Heating system	Teleheating
Water heating system	Teleheating
Date of the building evaluation	-

## 2 Execution of the building evaluation with the ENERBUILD tool

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Contact person: DI Dr. Karl Torghele

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Email: karl.torghele@spektrum.co.at

Temperature for thermal comfort in summertime: 0 % > 25 °C

Local limits for heating demand: 14 kWh/m<sup>2</sup>

## 3 Results

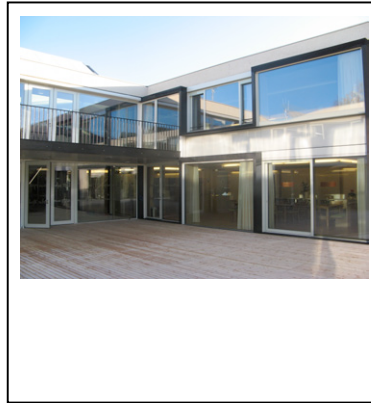


### Criteria

Nr.	Title	Must criteria (M); Minimum standard	max. points	Points
<b>A</b>	<b>Quality of location and facilities</b>		max. 100	50
A 1	Access to public transport network		50	20
A 2	Ecological quality of site		50	30
<b>B</b>	<b>Process and planning quality</b>		max. 200	200
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	35
B 4	Product-management - Use of low-emission products		60	60
B 5	Planning support for energetic optimization		60	60
B 6	Information for users		25	25
<b>C</b>	<b>Energy &amp; Utilities (Passive house)</b>		max. 350	264
C 1	Specific heating demand (PHPP)	M	100	84
C 2	Specific cooling demand (PHPP)	M	100	50
C 3	Primary energy demand (PHPP)	M	125	100
C 4	CO <sub>2</sub> -emissions (PHPP)		50	30
<b>D</b>	<b>Health and Comfort</b>		max. 250	60
D 1	Thermal comfort in summer		150	0
D 2	Ventilation - non energetic aspects		50	50
D 3	Daylight optimized (+ lightening optimized)		50	10
<b>E</b>	<b>Building materials and construction</b>		max. 200	192
E 1	OI <sub>3</sub> <sub>TGH-IC</sub> ecological index of the thermal building envelope (respectively OI <sub>3</sub> of the total mass of the building)		200	192
<b>Sum</b>			max. 1000	766

# Evaluation ENERBUILD-Tool – existing building

## Social center Klosterreben



### 1 Basic information about the building

Name of the building	Social center Klosterreben
Address of the building	A-6830 Rankweil, Klosterreben 4, Austria
Owner/investor	Municipality of Rankweil
Year of construction	In construction
Building type	Social center
Building method	Solid construction
Number of buildings	1
Number of levels above earth	3
Number of levels underground	1
Kind of the public use	Social center
Effective area for public use in m <sup>2</sup> (net)	4230
Additional private uses	-
Effective area for private use in m <sup>2</sup> (net)	-
Total effective area in m <sup>2</sup>	4230
Source of energy for heating	Biomass
Heating system	Teleheating
Water heating system	Teleheating
Date of the building evaluation	-

## 2 Execution of the building evaluation with the ENERBUILD tool

Responsible Organisation: Spektrum GmbH, A-6850 Dornbirn, Austria

Contact person: DI Dr. Karl Torghele

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Temperature for thermal comfort in summertime:      26 °C

Local limits for heating demand: (PHPP)      25 kWh/m<sup>2</sup>

## 3 Results

Nr.	Title	Must criteria (M); Minimum standard	max. points	Points
<b>A</b>				
	<b>Quality of location and facilities</b>		<b>max. 100</b>	<b>84</b>
A 1	Access to public transport network		50	48
A 2	Ecological quality of site		50	36
<b>B</b>				
	<b>Process and planning quality</b>		<b>max. 200</b>	<b>155</b>
B 1	Decision making and determination of goals		25	0
B 2	Formulation of verifiable objectives for energetic and ecological measures	M	20	20
B 3	Standardized calculation of the economic efficiency	M	40	30
B 4	Product-management - Use of low-emission products		60	60
B 5	Planning support for energetic optimization		60	20
B 6	Information for users		25	25
<b>C</b>				
	<b>Energy &amp; Utilities (Passive house)</b>		<b>max. 350</b>	<b>191</b>
C 1	Specific heating demand (PHPP)	M	100	40
C 2	Specific cooling demand (PHPP)	M	100	73
C 3	Primary energy demand (PHPP)	M	125	68
C 4	CO <sub>2</sub> -emissions (PHPP)		50	10
<b>D</b>				
	<b>Health and Comfort</b>		<b>max. 250</b>	<b>115</b>
D 1	Thermal comfort in summer		150	65
D 2	Ventilation - non energetic aspects		50	40
D 3	Daylight optimized (+ lightening optimized)		50	10
<b>E</b>				
	<b>Building materials and construction</b>		<b>max. 200</b>	<b>148</b>
E 1	OI <sub>3TGH-1c</sub> ecological index of the thermal building envelope (respectively OI <sub>3</sub> of the total mass of the building)		200	148
Sum			max. 1000	693