

# SEEP II



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## SERBIA ENERGY EFFICIENCY PROJECT SEEP II

ID #P090492 Credit/Loan No.: #IDA3870-1 YF/IBRD 7466



Project has been approved as the Official partner of  
„Sustainable Energy Europe“ Campaign







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# SEEP2 – SCHOOLS





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## Elementary School 12. decembar, Sjenica

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
7,039	Lignite	247,000	Windows Replacement, Wall insulation	Thermocontrol, Balancing



### Savings

#### ES 12. decembar, Sjenica

Heated Area m2			Final Investment €	€/m2
7039			247,000	35.09
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m2 (kWh/m2)	393	224	169	43%
Annual CO2 emission (t)	116	66	50	43%
Investment Pay Back Period (years)			10.5	
Savings €			25,000 €	
Fuel savings			3	

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Elementary School Petar Lekovic, Pozega

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
5,113	Light Fuel Oil	185,066	Windows Replacement	Thermocontroll, Balancing



### Savings

ES Petar Lekovic, Pozega				
Heated Area m2			Final Investment €	€/m2
		5,113	185,066	36,20
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m2 (kWh/m2)	270	159	111	41%
Annual CO2 emission (t)	74	44	30	41%
Investment Pay Back Period (years)				10,5
Savings €				18,000 €
Fuel savings				2

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## ELEMENTARY SCHOOL „DESPOT STEFAN LAZAREVIC“, BABUSNICA

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
3,079	Coal	173,243	Windows Replacement; Attic Insulation	Thermocontroll, Balancing



### Savings

ES Despot Stefan Lazarevic, Babusnica				
Heated Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
		3,079	173,243	56,27
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	282	84	198	70%
Annual CO <sub>2</sub> emission (t)	82	24	58	71%
Investment Pay Back Period (years)				14,5
Savings €				12,000 €
Fuel savings				1

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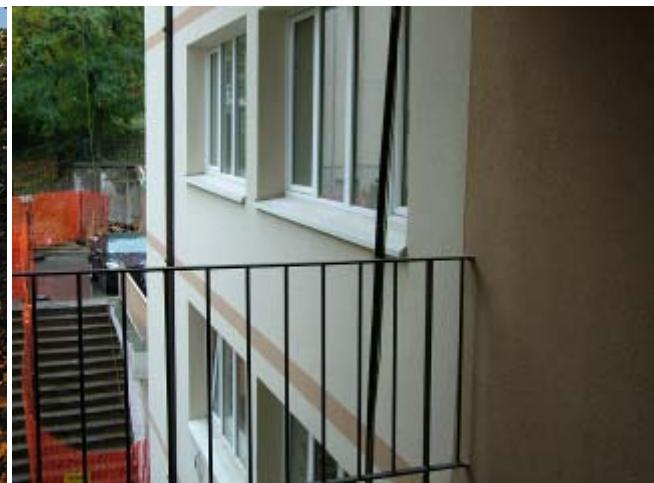


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## "Patris Lumumba" – Dormitory, Belgrade

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
2,435	Light Fuel Oil	102,661	Windows Replacement	Thermocontroll, Balancing



### Savings

#### "Patris Lumumba" - Dormitory

Heated Area m2		Final Investment €	€/m2
	2,435	102,661	42,16
Results		Savings	
Annual consumption of energy for heating per m2 (kWh/m2)	322	242	81
Annual CO2 emission (t)	89	66	23
Investment Pay Back Period (years)			6,5
Savings €			15,000 €
Fuel savings			2

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Secondary School for Agriculture and Veterinary, Vranje

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
2,752	Light Fuel Oil	318,233	Windows Replacement, Roof Insulation, Wall insulation	Thermocontrol, Balancing



### Savings

#### Secondary School for Agriculture and Veterinary, Vranje

Heated Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
2,752			318,233	115,64
Results			Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	121	39	82	68%
Annual CO <sub>2</sub> emission (t)	32	10	22	68%
Investment Pay Back Period (years)			17,0	
Savings €			18,000 €	
Fuel savings			2	

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Elementary School Branko Radicevic, Priborj

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
3,300	Lignite	124,546	Windows Replacement	Thermocontroll, Balancing



### Savings

ES Branko Radicevic, Priborj			Final Investment €	€/m <sup>2</sup>
Heated Area m <sup>2</sup>			3,300	124,546 37,74
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	630	372	258	41%
Annual CO <sub>2</sub> emission (t)	186	110	76	41%
Investment Pay Back Period (years)			7,6	
Savings €			16,500 €	
Fuel savings			2	

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Technology School Prijepolje, Prijepolje

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
4,629	Coal	260,819	Windows Replacement, Wall insulation	Thermocontroll, Balancing



### Savings

Technology School Prijepolje, Prijepolje				
Heated Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
		4,629	260,819	56,34
Results			Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	264	135	129	49%
Annual CO <sub>2</sub> emission (t)	79	40	39	49%
Investment Pay Back Period (years)				22,5
Savings €				11,500 €
Fuel savings				1

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## Secondary School Rajko Bosnic, Bukovo

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
4,184	Light Fuel Oil	380,645	Windows Replacement, Roof Insulation, Wall insulation	Thermocontroll, Balancing
		19,503	Partial Lihgting	



### Savings

SS Rajko Bosnic, Bukovo			Final Investment €	€/m2
Heated Area m2			4,184	380,645
Results	BEFORE WORKS	AFTER WORKS	Annual Savings - absolute values	Savings - percentage (%)
Annual consumption of energy for heating per m2 (kWh/m2)	167	39	128	77%
Annual CO2 emission (t)	49	11	37	77%
Investment Pay Back Period (years)			23,8	
Savings €			16,000 €	
Fuel savings			2	

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## ES „STEVAN SREMAC“, BORCA

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
2,810	DH	47,122	Partial Windows Replacement	Thermocontroll, Balancing
		12.135	Partial Lighting Retrofit	



### Savings

#### ES Stevan Sremac, Borca

Heated Area m2			Final Investment €	€/m2
			47,122	16,77
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m2 (kWh/m2)	163	136	27	17%
Annual CO2 emission (t)	34	28	6	18%
Investment Pay Back Period (years)				6,2
Fuel savings				7,650 €
				1

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## Elementary School Slobodan Sekulic, Uzice

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
5,559	Light Fuel Oil	377,332	Windows Replacement, Flat Roof Insulation	Thermocontroll, Balancing



### Savings

#### ES Slobodan Sekulic, Uzice

Heated Area m2		Final Investment €	€/m2	
	5,559	377,332	67,88	
Results	BEFORE WORKS	AFTER WORKS	Annual Savings - absolute values	Savings - percentage (%)
Annual consumption of energy for heating per m2 (kWh/m2)	269	124	145	54%
Annual CO2 emission (t)	74	34	40	54%
Investment Pay Back Period (years)			6,1	
Savings €			62,000 €	
Fuel savings	10 fuel trucks	10 fuel trucks	6	

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## ES MILAN MIJALKOVIC, Jagodina

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
4,246	DH	220,818	Windows Replacement, Attic Insulation	Thermocontroll, Balancing



### Savings

ES Milan Mijalkovic, Jagodina				
Heated Area m2			Final Investment €	€/m2
		4,246	220,818	52,01
Results	BEFORE WORKS	AFTER WORKS	Annual Savings - absolute values	Savings - percentage (%)
Annual consumption of energy for heating per m2 (kWh/m2)	168	80	88	52%
Annual CO2 emission (t)	35	17	18	52%
Investment Pay Back Period (years)				15,6
Savings €				14,200 €
Fuel savings				1

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Elementary School Milan Blagojevic, Lucani

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
4,564	DH	522,943	Windows Replacement, Attic Insulation, Wall insulation	Thermocontroll, Balancing



### Savings

#### ES Milan Blagojevic, Lucani

Heated Area m2		Final Investment €	€/m2	
		4,564	522,943	114,58
Results	BEFORE WORKS	AFTER WORKS	Annual Savings - absolute values	Savings - percentage (%)
Annual consumption of energy for heating per m2 (kWh/m2)	221	91	130	59%
Annual CO2 emission (t)	64	27	37	58%
Investment Pay Back Period (years)				11,9
Savings €				44,000 €
Fuel savings				4

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## TECHNICAL SCHOOL PIROT

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
4,459	DH	230,119	Windows Replacement	Thermocontroll, Balancing



### Savings

Technical School Pirot				
Heated Area m2			Final Investment €	€/m2
4,459			230,119	51,61
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m2 (kWh/m2)	198	130	68	34%
Annual CO2 emission (t)	58	38	20	34%
Investment Pay Back Period (years)				28,9
Savings €				8,000 €
Fuel savings				1

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## ES „SVETI SAVA“, VELIKA PLANA

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
3,846	DH	340,572	Windows Replacement, Attic Insulation, Wall insulation	Thermocontroll, Balancing



### Savings

ES Sveti Sava, Velika Plana				
Heated Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
3,846			340,572	88,55
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	121	59	62	51%
Annual CO <sub>2</sub> emission (t)	25	12	13	52%
Investment Pay Back Period (years)				20,2
Savings €				17,000 €
Fuel savings				2



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## ES JOVAN JOVANOVIC ZMAJ, BRUS

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
4,717	Light Fuel Oil	279,961	Windows Replacement; Wall Insulation	Thermocontroll, Balancing



### Savings

ES Jovan Jovanovic Zmaj, Brus				
Heated Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
		4,717	279,961	59,35
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	258	106	152	59%
Annual CO <sub>2</sub> emission (t)	67	28	40	59%
Investment Pay Back Period (years)				4,7
Savings €				60,000 €
Fuel savings				6

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## ES „HEROJ IVAN MUKER“, SMEDEREVSKA PALANKA

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
5,588	DH	230,125	Windows Replacement; Flat Roof Insulation	Thermocontroll, Balancing



### Savings

#### ES Heroj Ivan Muker, Smederevska Palanka

Heated Area m2		Final Investment €	€/m2
	5,588	230,125	41,18
Results	BEFORE WORKS	AFTER WORKS	Savings
Annual consumption of energy for heating per m2 (kWh/m2)	178	77	101
Annual CO2 emission (t)	49	21	28
Investment Pay Back Period (years)			7,5
Savings €			30,500 €
Fuel savings			3

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## ES „OLGA MILOSEVIC“, SMEDEREVSKA PALANKA

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
3,172	Light Fuel Oil	238,242	Windows Replacement; Flat Roof Insulation	Thermocontroll, Balancing



### Savings

#### ES Olga Milosevic, Smederevska Palanka

Heated Area m <sup>2</sup>		Final Investment €	€/m <sup>2</sup>
	3,172	238,242	75,11
Results	BEFORE WORKS	AFTER WORKS	Savings
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	227	108	119
Annual CO <sub>2</sub> emission (t)	62	29	33
Investment Pay Back Period (years)			8,5
Savings €			28,000 €
Fuel savings			3

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## Grammar School, Vrnjacka Banja

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
3,048	Gas	338,561	Windows Replacement, Attic Insulation, Wall insulation	Thermocontroll, Balancing



### Savings

#### Grammar School, Vrnjacka Banja

Heated Area m2		Final Investment €	€/m2
	3,048	338,561	111,08
Results	BEFORE WORKS	AFTER WORKS	Savings
Annual consumption of energy for heating per m2 (kWh/m2)	233	103	130
Annual CO2 emission (t)	49	22	27
Investment Pay Back Period (years)			18,7
Savings €			18,000 €
Fuel savings			2

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## Elementary School Vladislav Petkovic Dis, Grljan (Zajecar)

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
1,624	Coal	123,425	Windows Replacement, Attic Insulation, Wall insulation	Thermocontroll, Balancing



### Savings

ES Vladislav Petkovic Dis, Grljan				
Heated Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
		1,624	123,425	76,00
Results	BEFORE WORKS	AFTER WORKS	Annual Savings - absolute values	Savings - percentage (%)
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	232	56	176	76%
Annual CO <sub>2</sub> emission (t)	68	16	52	77%
Investment Pay Back Period (years)				22,1
Savings €				5,600 €
Fuel savings				1

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## ES Aleksa Dejovic, Sevojno (Uzice)

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
3,466	DH	275,722	Windows Replacement, Wall insulation	Thermocontroll, Balancing



### Savings

ES Aleksa Dejovic, Sevojno (Uzice)				
Heated Area m2			Final Investment €	€/m2
3466			275,722	79,55
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m2 (kWh/m2)	197	105	92	47%
Annual CO2 emission (t)	57	31	26	46%
Investment Pay Back Period (years)				12,6
Savings €				22,000 €
Fuel savings				2

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction





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# SEEP2 – Health Centres





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## HEALTH CENTRE ARANDELOVAC

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
6,137	Gas	329,181	New PVC/AI Windows, Six Chambers, Triple Glazing	Thermocontroll, Balancing



### Savings

Health Centre dr Dragisa Misovic, Cacak				
Heated Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
13,400			392,650	29,30
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	406	235	171	42%
Annual CO <sub>2</sub> emission (t)	85	49	36	42%
Investment Pay Back Period (years)				4
Savings €				103,000 €
Fuel savings				10

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## HEALTH CENTRE KNJAZEVAC

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
6,560	Light Fuel Oil	240,370	Sloped Roof Insulation, Wall Insulation	SEEP 1 – Retrofit



### Savings

Health Centre Knjazevac				
Heated Area m2			Final Investment €	€/m2
6,560			240,370	36,64
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m2 (kWh/m2)	124	100	24	19%
Annual CO2 emission (t)	33	26	7	21%
Investment Pay Back Period (years)				10
Savings €				13,000 €
Fuel savings				1

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## HEALTH CENTRE SUBOTICA

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
18,830	DH	673,539	Windows Replacement	Thermocontroll, Balancing



### Savings

Health Centre Subotica				
Heated Area m2			Final Investment €	€/m2
18,830			673,539	35.77
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m2 (kWh/m2)	231	141	90	39%
Annual CO2 emission (t)	49	30	19	38%
Investment Pay Back Period (years)				6
Savings €				120,000 €
Fuel savings				12

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Health Centre dr Dragisa Misovic, Cacak

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
13,400	Gas	392,650	Windows Replacement, Six Chambers, Triple Glazing	Thermocontroll, Balancing



### Savings

Health Centre dr Dragisa Misovic, Cacak				
Heated Area m2			Final Investment €	€/m2
13,400			392,650	29.30
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m2 (kWh/m2)	406	235	171	42%
Annual CO2 emission (t)	85	49	36	42%
Investment Pay Back Period (years)				4
Savings €				103,000 €
Fuel savings				10

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Special Hospital for Internal Diseases, Vrnjacka Banja

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
3,066	Gas	207,822	Windows Replacement, Six Chambers, Triple Glazing; Attic Insulation; Wall Insulation	Thermocontroll, Balancing



### Savings

Special Hospital for Internal Diseases, Vrnjacka Banja				
Heated Area m2			Final Investment €	€/m2
3,066			207,822	67.78
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m2 (kWh/m2)	417	143	274	66%
Annual CO2 emission (t)	114	39	75	66%
Investment Pay Back Period (years)				3
Savings €				62,000 €
Fuel savings				

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## HEALTH CENTRE JAGODINA

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
15,119	Gas	162,235	Windows Replacement	Reconstruction of Existing Mechanical Equipment and Piping; Installation of New Mechanical Equipment; Thermocontrol; Balancing



### Savings

Health Centre Jagodina				
Heated Area m2			Final Investment €	€/m2
15,119			162,235	10.73
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m2 (kWh/m2)	313	243	70	22%
Annual CO2 emission (t)	66	51	15	23%
Investment Pay Back Period (years)				4
Savings €				13,000 €
Fuel savings				

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Health Centre Senta, Maternity Hospital

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
2,440	DH	161,234	Windows Replacement, Six Chambers, Triple Glazing; Attic Insulation; Wall Insulation	Thermocontroll, Balancing



### Savings

Health Centre Senta, Maternity Hospital				
Heated Area m2			Final Investment €	€/m2
2,440			161,234	66.08
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m2 (kWh/m2)	305	101	204	67%
Annual CO2 emission (t)	64	21	43	67%
Investment Pay Back Period (years)				5
Savings €				36,000 €
Fuel savings				4

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## HEALTH CENTRE VRBAS

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
12,814	Heavy Fuel Oil	455,078	Windows Replacement	Thermocontroll, Balancing



### Savings

Health Centre Vrbas				
Heated Area m2			Final Investment €	€/m2
12,814			455,078	35.51
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m2 (kWh/m2)	263	142	121	46%
Annual CO2 emission (t)	72	39	33	46%
Investment Pay Back Period (years)				9
Savings €				50,000 €
Fuel savings				5

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Rehabilitation Institute "Selters", Mladenovac

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
7,607	Heavy Fuel Oil	302,093	Windows Replacement,	Thermocontroll, Balancing



### Savings

Rehabilitation Institute "Selters", Mladenovac				
Heated Area m2			Final Investment €	€/m2
7,607			302,093	39.71
Results		BEFORE WORKS	AFTER WORKS	Savings
Annual consumption of energy for heating per m2 (kWh/m2)		401	212	189 47%
Annual CO2 emission (t)		110	58	52 47%
Investment Pay Back Period (years)				3
Savings €				100,000 €
Fuel savings				10

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## HEALTH CENTRE SURDULICA

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
1,798	Coal	168,651	Windows Replacement; Flat Roof Insulation; Wall Insulation	Thermocontroll, Balancing



### Savings

Health Centre Surdulica				
Heated Area m2			Final Investment €	€/m2
1,798			168,651	93.80
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m2 (kWh/m2)	549	189	360	66%
Annual CO2 emission (t)	158	55	103	65%
Investment Pay Back Period (years)				13
Savings €				12,000 €
Fuel savings				1

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction





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# Clinical Centre Nis





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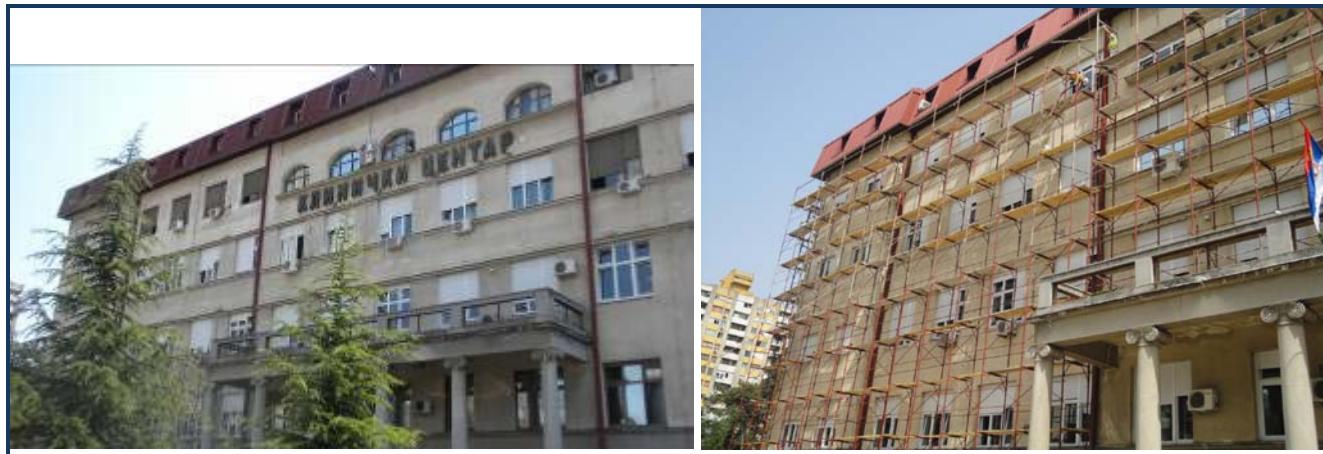


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## Clinical Centre Nis, SURGICAL CLINIC

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
8,836	DH	453,152	Windows Replacement; Flat Roof Insulation; Wall Insulation	Thermocontroll, Balancing



### Savings

Clinical Centre Nis, Surgical Clinic				
Gross Area m <sup>2</sup>			Total Investment €	Specific Investment €/m <sup>2</sup>
8,836			453,152	51,28
RESULTS		Before Works	After Works	Savings
Annual energy consumption for heating gross area weighted (KWh/m <sup>2</sup> )		327	129	198
Annual CO2 emission (t)		95	37	58
Investment Simple Payback Period (years)				9,2
Annual savings (€)				50,000
Annual fuel savings	6			5

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Clinical Centre Nis, NEPHROLOGY

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
2,827	Coal	82,225	Windows Replacement; Attic Insulation	



### Savings

Clinical Centre Nis, NEPHROLOGY				
Gross Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
2,827			82,225	29,09
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	459	216	243	53%
Annual CO <sub>2</sub> emission (t)	133	63	70	53%
Investment Pay Back Period (years)				6,1
Savings €				13,000 €
Fuel savings				1

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Clinical Centre Nis, OPHTHALMOLOGY

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
894	Coal	37,464	Windows Replacement; Attic Insulation	



### Savings

Clinical Centre Nis, OPHTHALMOLOGY				
Gross Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
894			37,464	41,91
Results		BEFORE WORKS	AFTER WORKS	Savings
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )		763	375	388 51%
Annual CO <sub>2</sub> emission (t)		221	108	113 51%
Investment Pay Back Period (years)				5,5
Savings €				7,000 €
Fuel savings				

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Clinical Centre Nis, RADIOLOGY, ROENTGEN and MAGNETIC RESONANCE

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
595	DH	7,366	Attic Insulation	Thermocontroll, Balancing



Front Side



Attic Insulation



HVAC Works

Savings

Clinical Centre Nis, RADIOLOGY				
Gross Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
595			7,366	12,38
Results		BEFORE WORKS	AFTER WORKS	Savings
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )		234	141	93 40%
Annual CO2 emission (t)		68	41	27 40%
Investment Pay Back Period (years)				4,7
Savings €				-
Fuel savings				-

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Clinical Centre Nis, ADMINISTRATIVE BUILDING

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
3,235	Coal	69,836	Windows Replacement	



### Savings

Clinical Centre Nis, ADMINISTRATIVE BUILDING				
Gross Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
3,235			69,836	21.59
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	384	328	56	15%
Annual CO <sub>2</sub> emission (t)	78	66	12	15%
Investment Pay Back Period (years)				7.1
Savings €				10,000 €
Fuel savings				1

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Clinical Centre Nis, CENTRAL KITCHEN

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
1,193	Coal	60,547	Windows Replacement; Wall Insulation	



### Savings

Clinical Centre Nis, CENTRAL KITCHEN			Final Investment €	€/m <sup>2</sup>
Gross Area m <sup>2</sup>			60,547	50.75
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	150	85	66	44%
Annual CO <sub>2</sub> emission (t)	43	24	19	44%
Investment Pay Back Period (years)				39.5
Savings €				
Fuel savings				-

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Clinical Centre Nis, DERMATOLOGY CLINIC

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
740	DH	24,015	Windows Replacement	Thermocontroll, Balancing



### Savings

Clinical Centre Nis, DERMATOLOGY CLINIC				
Gross Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
740			24,015	32.45
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	409	295	114	28%
Annual CO <sub>2</sub> emission (t)	118	85	33	28%
Investment Pay Back Period (years)				10.1
Savings €				-
Fuel savings				-

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Clinical Centre Nis, ENDOCRINOLOGY, Day Hospital, Nuclear Medicine (Oncology)

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
460	Coal	31,605	Windows Replacement; Attic Insulation	



### Savings

Clinical Centre Nis, ENDOCRINOLOGY				
Gross Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
460			31,605	68.71
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	653	313	340	52%
Annual CO <sub>2</sub> emission (t)	188	90	98	52%
Investment Pay Back Period (years)				10.3
Savings €				
Fuel savings				-

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Clinical Centre Nis, GYNECOLOGY

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
5,351	Coal	61,135	Flat Roof Insulation	



### Savings

Clinical Centre Nis, GYNECOLOGY				
Gross Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
5,351			61,135	11.42
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	187	171	16	9%
Annual CO <sub>2</sub> emission (t)	54	50	5	9%
Investment Pay Back Period (years)				35.5
Savings €				
Fuel savings				-

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Clinical Centre Nis, CLINIC FOR INTERNAL DISEASES

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
5,205	Coal	140,223	Windows Replacement; Attic Insulation	Thermocontroll, Balancing



### Savings

Clinical Centre Nis, CLINIC FOR INTERNAL DISEASES				
Gross Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
5,205			140,223	26.94
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	392	181	211	54%
Annual CO <sub>2</sub> emission (t)	114	52	62	54%
Investment Pay Back Period (years)				6.5
Savings €				20,000 €
Fuel savings				2

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Clinical Centre Nis, JANITOR BOOTH

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
128	Electricity	19,690	Windows Replacement; Attic Insulation; Wall Insulation	



### Savings

Clinical Centre Nis, JANITOR BOOTH				
Gross Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
128			19,690	153.83
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	316	115	201	64%
Annual CO <sub>2</sub> emission (t)	160	57	104	65%
Investment Pay Back Period (years)				13.0
Savings €				
Fuel savings				-

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Clinical Centre Nis, LAUNDRY

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
875	Coal	50,370	Windows Replacement; Wall Insulation	



### Savings

Clinical Centre Nis, LAUNDRY				
Gross Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
875			50,370	57.57
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	158	92	66	42%
Annual CO <sub>2</sub> emission (t)	45	26	19	42%
Investment Pay Back Period (years)				45.0
Savings €				
Fuel savings				-

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Clinical Centre Nis, PHYSICAL MEDICINE and NEUROLOGY

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
4,775	Coal	345,512	Windows Replacement; Wall Insulation	



### Savings

#### Clinical Centre Nis, PHYSICAL MEDICINE and NEUROLOGY

Gross Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
4,755			345,512	72.66
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	447	149	298	67%
Annual CO <sub>2</sub> emission (t)	130	43	87	67%
Investment Pay Back Period (years)				12.0
Savings €				30,000 €
Fuel savings				3

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Clinical Centre Nis, CHILDREN CLINIC

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
5,882	DH	276,657	Windows Replacement	Thermocontroll, Balancing



### Savings

Clinical Centre Nis, CHILDREN CLINIC				
Gross Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
5,882			276,657	47.03
Results		BEFORE WORKS	AFTER WORKS	Savings
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )		380	155	226 59%
Annual CO <sub>2</sub> emission (t)		110	45	65 59%
Investment Pay Back Period (years)				7.4
Savings €				30,000 €
Fuel savings				3

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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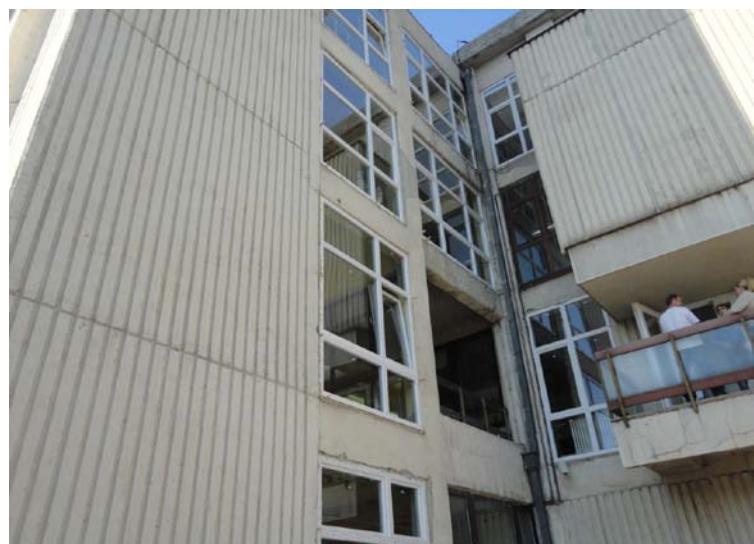


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## Clinical Centre Nis, CLINIC FOR INFECTIVE DISEASES

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
3,776	Coal	160,083	Windows Replacement; Flat Roof Insulation	



### Savings

#### Clinical Centre Nis, CLINIC FOR INFECTIVE DISEASES

Gross Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
3,766			160,083	42.51
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	558	203	355	64%
Annual CO <sub>2</sub> emission (t)	162	59	103	64%
Investment Pay Back Period (years)				6.0
Savings €				26,000 €
Fuel savings				3

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Clinical Centre Nis, MENTAL HEALTH INSTITUTE

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
2,208	Coal	160,736	Windows Replacement; Sloped Roof Insulation	



### Savings

Clinical Centre Nis, MENTAL HEALTH INSTITUTE				
Gross Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
2,208			160,736	72.80
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	579	308	271	47%
Annual CO <sub>2</sub> emission (t)	168	90	79	47%
Investment Pay Back Period (years)				14.0
Savings €				12,000 €
Fuel savings				1

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Clinical Centre Nis, PATHOLOGY

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
2,927	Coal	184,156	Windows Replacement, Wall Insulation	Thermocontroll, Balancing



### Savings

Clinical Centre Nis, PATHOLOGY				
Gross Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
2,927			184,156	62.92
Results		BEFORE WORKS	AFTER WORKS	Savings
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )		303	119	184 61%
Annual CO <sub>2</sub> emission (t)		88	34	54 61%
Investment Pay Back Period (years)				17.5
Savings €				10,000 €
Fuel savings				1

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Clinical Centre Nis, ORL

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
1,819	Coal	164,982	Windows Replacement, Sloped Roof Insulation, Wall Insulation	Thermocontrol, Balancing



### Savings

Clinical Centre Nis, ORL				
Gross Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
1,819			164,982	90.70
Results		BEFORE WORKS	AFTER WORKS	Savings
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )		401	117	284      71%
Annual CO <sub>2</sub> emission (t)		117	34	83      71%
Investment Pay Back Period (years)				16.0
Savings €				10,000 €
Fuel savings				1

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Clinical Centre Nis, ONCOLOGY - New Building

Area	Fuel type	Final Investment EUR	Civil Works		Mechanical Works
			Partial	Wall Insulation	
985	Coal	5,241			Thermocontroll, Balancing



### Savings

Clinical Centre Nis, ONCOLOGY, New Building				
Gross Area m <sup>2</sup>			Final Investment €	€/m <sup>2</sup>
985			5,241	5.32
Results		BEFORE WORKS	AFTER WORKS	Savings
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )		214	180	34      16%
Annual CO <sub>2</sub> emission (t)		56	48	9      15%
Investment Pay Back Period (years)				2.0
Savings €				
Fuel savings				-

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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# SEEP2 – Social Care Institutions





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## Institute for Children and Adolescents, Kulina

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
3,958	Light Fuel Oil	144,101	Windows Replacement	Thermocontroll, Balancing



### Savings

Institute for Children and Adolescents, Kulina				
Heated Area m2			Final Investment €	€/m2
		3,958	144,101	36,41
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m2 (kWh/m2)	185	93	92	50%
Annual CO2 emission (t)	48	24	24	50%
Investment Pay Back Period (years)				4,8
Savings €				30,000 €
Fuel savings	3			

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Institute for Adults "Male pcelice", Kragujevac

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
1,886	Heavy fuel Oil/Coal	79,978	Windows Replacement, Attic Insulation	Thermocontroll, Balancing



### Savings

#### Institute for Adults "Male pcelice", Kragujevac

Heated Area m <sup>2</sup>		Final Investment €	€/m <sup>2</sup>
1,886		79,978	42,41
Results	BEFORE WORKS	AFTER WORKS	Savings
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )	336	162	174
Annual CO <sub>2</sub> emission (t)	99	48	51
Investment Pay Back Period (years)			11,3
Savings €			7,100 €
Fuel savings			1

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Institute for Blind People "Zbrinjavanje", Pancevo

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
2,146	Light Fuel Oil	172,694	Windows Replacement, Wall Insulation, Attic Insulation	Thermocontroll, Balancing, Boiler Room Reconstruction



### Savings

#### Institute for Blind People "Zbrinjavanje", Pancevo

Heated Area m2			Final Investment €	€/m2
2,146			172,694	80,47
Results	BEFORE WORKS	AFTER WORKS	Savings	
Annual consumption of energy for heating per m2 (kWh/m2)	349	189	160	46%
Annual CO2 emission (t)	93	48	45	48%
Investment Pay Back Period (years)			7,5	
Savings €			23,000 €	
Fuel savings			2	

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Institute for Children and Adolescents, Vaternik

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
2,740	GAS	22,848	Windows Replacement, Attic Insulation, Wall Insulation	Thermocontroll, Balancing



### Savings

Institute for Children and Adolescents, Vaternik				
Heated Area m2			Final Investment €	€/m2
2,740			22,848	8,34
Results			Savings	
Annual consumption of energy for heating per m2 (kWh/m2)	349	189	161	46%
Annual CO2 emission (t)	72	39	33	45%
Investment Pay Back Period (years)			11,0	
Savings €			2,000 €	

### Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction



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## Institute for Adults, Tutin

Area	Fuel type	Final Investment EUR	Civil Works	Mechanical Works
5,446	Light fuel oil	42,824	Windows Replacement, Attic Insulation	Thermocontroll, Balancing



### Savings

Institute for Adults, Tutin			Final Investment €	€/m <sup>2</sup>
Heated Area m <sup>2</sup>				
5,446			42,824	7,86
Results			Savings	
Annual consumption of energy for heating per m <sup>2</sup> (kWh/m <sup>2</sup> )			83	29%
Annual CO <sub>2</sub> emission (t)			23	29%
Investment Pay Back Period (years)				1,8
Savings €				25,000 €
Fuel savings				3

Social Survey Results: increase of indoor comfort and rise of beneficiaries satisfaction