



Project co-financed by the European Regional Development Fund

REPUBLIKA SLOVENIJA
SLUŽBA VLADE REPUBLIKE SLOVENIJE ZA RAZVOJ
IN EVROPSKO KOHEZIJSKO POLITIKO



SISMA
Supporting Innovative Schemes in the MED Area

Project co-financed by the European Regional Development Fund

SET

Subsidy Evaluation Tool Upgrade

 ▼

USER MANUAL:

	[kWh]	[kWh]	-
	Electricit	Heating	Ty
	491.608	882.364	N
	491.608	882.364	N

Values are manually entered only in yellow cells with red colour text

61	Natural Gas	5
64	Natural Gas	5
69	Natural Gas	5
23	Fuel oil (extra)	5
23	Fuel oil (extra)	5
23	Fuel oil (extra)	5

Yellow coloured cells with black text have a drop down menu

#	Include in joint action?	PR
1	YES	1
2	YES	1

When entering a new measure in the table it is necessary to select YES in the "take measure in to calculation" in order to be taken in to a "joint action" calculation

PRIORITY	Community	Building na	A

A filter is applied for all the columnes to help you create an optimal joint action scenario

JOINT ACTION CALCULATION BASELINE DATA:			
Heat consumption baseline :	<input type="text" value="4.787.734,11"/>	kWh/y	HDD baseline: <input type="text" value="3.500"/> Kd
Electricity consumption baseline :	<input type="text" value="2.155.686,50"/>	kWh/y	
Estimated heat savings:	<input type="text" value="5,8"/> %	<input type="text" value="279.687,00"/> kWh/y	<input type="text" value="30.791,73"/> €/y
Estimated electricity savings:	<input type="text" value="5,2"/> %	<input type="text" value="111.028,83"/> kWh/y	<input type="text" value="12.047,94"/> €/y

FINANCIAL CALCULATION PARAMETERS

Investment	489.703,02	€		
Building design and construction fees	53.867,33	€	11%	%
Building site security costs	14.691,09	€	3%	%
VAT	122.817,52	€	22%	%
Total investment	681.078,96	€ VAT incl.		
Estimated savings on heat consumption:	30.791,73	€/y	5,84	%
Estimated cost savings on electric power:	12.047,94	€/y	5,15	%
Total savings:	42.839,67	€/y		
Duration of the Financial Plan	15	year		
General inflation rate	1,90	%		
inflation rate of electricity prices	1,90	%		
Inflation rate of eating energy source	1,90	%		
NPV discount rate	5,00	%		
IRR *	10,00	%		
Subsidy:	326.917,90	€ VAT incl.	equivalent to	48,0 % of total investment

PRIVATE COMPANY FINANCIAL DATA

Loan amount:	0,00	€ VAT incl.	Loan period	15	years
			Annual Interest Rate	3,00	%
Own capital:	354.161,06	€ VAT incl.			

FINANCIAL PLAN

		INCOME STATEMENT																			
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15					
		2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034					
Revenues	Sales revenue - concession fee	42.807	43.588	44.382	45.191	46.015	46.854	47.708	48.578	49.463	50.364	51.282	52.217	53.168	54.137	55.124					
	Incentives																				
	Cost of goods sold	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	EBITDA	42.807	43.588	44.382	45.191	46.015	46.854	47.708	48.578	49.463	50.364	51.282	52.217	53.168	54.137	55.124					
Expenses	Administrative and office expenses, maintenance and insurance costs																				
	Normalization of expenditure at the inflation rate	1,00	1,02	1,04	1,06	1,08	1,10	1,12	1,14	1,16	1,18	1,21	1,23	1,25	1,28	1,30					
	Normalized costs with inflation adjustment	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	Amortisation	37.217	37.217	37.217	37.217	37.217	37.217	37.217	37.217	37.217	37.217	37.217	37.217	37.217	37.217	37.217					
	Total operating expenses	37.217	37.217	37.217	37.217	37.217	37.217	37.217	37.217	37.217	37.217	37.217	37.217	37.217	37.217	37.217					
	Operating income	5.590	6.370	7.165	7.974	8.798	9.636	10.491	11.360	12.245	13.147	14.065	14.999	15.951	16.920	17.907					
	Non-operating income	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	EBIT	5.590	6.370	7.165	7.974	8.798	9.636	10.491	11.360	12.245	13.147	14.065	14.999	15.951	16.920	17.907					
	Financial income	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	IBIE	5.590	6.370	7.165	7.974	8.798	9.636	10.491	11.360	12.245	13.147	14.065	14.999	15.951	16.920	17.907					
	Interest expenses deductible	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	EBT	5.590	6.370	7.165	7.974	8.798	9.636	10.491	11.360	12.245	13.147	14.065	14.999	15.951	16.920	17.907					
	Income taxes	4.528	5.160	5.804	6.459	7.126	7.806	8.497	9.202	9.919	10.649	11.393	12.150	12.920	13.705	14.504					
	Net income	1.062	1.210	1.361	1.515	1.672	1.831	1.993	2.158	2.327	2.498	2.672	2.850	3.031	3.215	3.402					

		CASH FLOW STATEMENT																			
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15				
		2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034				
Operating cash flow		0	42.807	43.588	44.382	45.191	46.015	46.854	47.708	48.578	49.463	50.364	51.282	52.217	53.168	54.137	55.124				
Investing cash flow		-326.918	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
Financing cash flow		326.918	5.590	6.370	7.165	7.974	8.798	9.636	10.491	11.360	12.245	13.147	14.065	14.999	15.951	16.920	17.907				
Net cash flow		0	48.397	49.958	51.547	53.165	54.813	56.490	58.198	59.938	61.708	63.511	65.347	67.216	69.120	71.057	73.030				

DSCR (DEBT SERVICE COVER RATIO)	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.				
LCCR (LOAN LIFE COVER RATIO)	N.A.																			

TABLE OF CONTENTS

EBITDA: Earnings Before Interest, Taxes, Depreciation and Amortization
 EBIT: Earnings Before Interest and Taxes
 IBIE: Income Before Interest Expense
 EBT: Earnings Before income Taxes
 DSCR: Debt service cover ratio (= EBITDA / Debt service. Debt service = Loan payment (Current Portion Of Long-Term Debt [CPLTD] + interest). DSCR is calculated on a yearly basis)
 LCCR: Loan life cover ratio (= Net Present Value of Cashflow Available for Debt Service / Outstanding Debt)

IMPORTANT: You can apply national or local rules on taxes calculation in PARAMETERS sheet!

SISMA

Supporting Innovative Schemes in the MED Area

Project co-financed by the European Regional Development Fund

ENERJ

SET

"Subsidy Evaluation tool upgrade"

This tool has been developed within the SISMA project by the project partners: INFORMEST, Goriška Local Energy Agency - GOLEA, RIBERA Consortium, Florence Energy Agency - AFE, Centre for Renewable Energy Sources and Saving - CRES, Energy Management Agency of Friuli Venezia Giulia - APE FVG, Agency for Economic Development - PREDa, Alternative Energies and Atomic Energy Commission - CEA.

Upgrade of SET was carried out by Goriška local energy agency GOLEA in the framework of ENERJ project.

The proposed method of calculation is a simplified method for a preliminary assessment of energy and financial aspects related to energy efficiency investments in public buildings. This instrument does not replace the detailed technical and economic analyses that must always be carried out by professionals and industry experts. The authors take no responsibility for improper use of this tool, nor for any calculation errors that may occur with other evaluations performed in different ways.

©2018,2019

5	Average interior height:	3.00	m
	Interior average ceiling height:	3.40	m
	Short side max dimension:	14.00	m
	Minimum area between the walls:	1	m ²
	External temperature increase contained to archive data:	0.5	K
	Thermal bridges incidence (Detail):	0.0	%
	Thermal bridges incidence (Other):	0.0	%
	Frost shutters average factor:	0.5	
	Thermal capacity (light structure):	130.000	200%
	Thermal capacity (medium structure):	100.000	100%
Insulation replacement savings:	50.0	%	
Lamp replacement savings:	88.0	%	
Service substitution savings:	20.0	%	

6	Up to a year:	1990	1995	2000	2005	2010	2015	2020	2025	> 2025	Values for renovation (according to day degree)									
	Area average window:	15.0	12.5	13.5	15.0	18.0	18.0	20.0	20.0	25.0	30.0	A	B	C	D	E	F1	F2	F3	
	Incidence on the total window area:	21.0	20.0	20.0	20.0	25.0	26.0	30.0	30.0	35.0	40.0	W10	W15	W20	W25	W30	W35	W40	W45	
	U value (total):	1.40	1.20	1.20	0.90	0.90	0.80	0.80	0.80	0.60	0.50	W10	W15	W20	W25	W30	W35	W40	W45	
	U value (element type):	1.50	1.20	1.00	0.80	0.80	0.80	0.80	0.80	0.60	0.40	W10	W15	W20	W25	W30	W35	W40	W45	
	U value (frame):	1.40	1.20	1.00	0.80	0.80	0.80	0.80	0.80	0.60	0.40	W10	W15	W20	W25	W30	W35	W40	W45	
	U value (glazing):	1.50	1.20	1.00	0.80	0.80	0.80	0.80	0.80	0.60	0.40	W10	W15	W20	W25	W30	W35	W40	W45	
	Solar factor:	0.80	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.67	0.65	W10	W15	W20	W25	W30	W35	W40	W45	
	U value (Walls with internal insulation):											0.48	0.48	0.43	0.38	0.34	0.31	0.31	0.31	W10

7	School:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Office:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Health care structure:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Internal temperature:	20.00	18.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00	20.00
	Ventilation (for changeover):	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Internal heat gains:	4.0	5.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
	Incidence of HVAC on thermal energy consumption:	0.5	1.0	3.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Incidence of heating on electricity consumption:	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
	Internal consumption PV for heating (heat pumps):	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0
	Internal consumption PV for electricity:	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0

8	before intervention		
	after intervention		
	Emission efficiency:	0.81	0.86
	Reduction for gains:	-0.02	-0.02
	Regulation efficiency:	0.83	0.87
Distribution efficiency:	0.83	0.86	

9	External average temperature increase in 20 years:	0.70	K
	Consumption correction factor:	0.75	
	Year:	5.07.2025	
	Start date of loan:	1.01.2020	

10	CALCULATION OF FINANCIAL INTERESTS																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	EBITDA	42.807	43.588	44.369	45.150	45.931	46.712	47.493	48.274	49.055	49.836	50.617	51.398	52.179	52.960	53.741	54.522	55.303	56.084	56.865
	EBT	5.590	6.370	7.150	7.930	8.710	9.490	10.270	11.050	11.830	12.610	13.390	14.170	14.950	15.730	16.510	17.290	18.070	18.850	19.630
	EBE	5.590	6.370	7.150	7.930	8.710	9.490	10.270	11.050	11.830	12.610	13.390	14.170	14.950	15.730	16.510	17.290	18.070	18.850	19.630
	EBITDA	30.000	37.840	45.680	53.520	61.360	69.200	77.040	84.880	92.720	100.560	108.400	116.240	124.080	131.920	139.760	147.600	155.440	163.280	171.120
	EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	EBE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Income taxes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

11	CALCULATION OF TAXES																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	EBITDA	42.807	43.588	44.369	45.150	45.931	46.712	47.493	48.274	49.055	49.836	50.617	51.398	52.179	52.960	53.741	54.522	55.303	56.084	56.865
	EBT	5.590	6.370	7.150	7.930	8.710	9.490	10.270	11.050	11.830	12.610	13.390	14.170	14.950	15.730	16.510	17.290	18.070	18.850	19.630
	EBE	5.590	6.370	7.150	7.930	8.710	9.490	10.270	11.050	11.830	12.610	13.390	14.170	14.950	15.730	16.510	17.290	18.070	18.850	19.630
	EBITDA	30.000	37.840	45.680	53.520	61.360	69.200	77.040	84.880	92.720	100.560	108.400	116.240	124.080	131.920	139.760	147.600	155.440	163.280	171.120
	EBT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	EBE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Income taxes	4.528	5.166	5.804	6.442	7.080	7.718	8.356	8.994	9.632	10.270	10.908	11.546	12.184	12.822	13.460	14.098	14.736	15.374	16.012

YEAR 0			
Operating cash flow: enter values		Investing cash flow	
Net income	0	Decrease (increase) in PP&E, net, cash	354161
Decrease (increase) inventory	0	Depreciation and amortization (expense)	0
(Gain) loss on disposal of PP&E	0	Gain (loss) on sale of PP&E	0
(Gain) loss on disposal of investments	0	Capital expenditures	354161
Depreciation	0	Decrease (increase) in investments	-681079
Amortisation	0	Gain (loss) on sale of investments	0
		Equity method income (loss)	0
		(Purchase) sale of investments	-681079
		Decrease (increase) in goodwill & intangibles	0
		Amortization (expense) and impairment (charge)	0
		(Purchase) sale of intangibles	0
		Decrease (increase) in other assets	0
		Gain (loss) on sale of other non-operating assets	0
		(Purchase) sale of other non-operating assets	0
		Investing cash flow	-326918
Changes in operating-related assets:		Financing cash flow	
Decrease (increase) receivables	0	Increase (decrease) in short-term debt	0
Decrease (increase) inventory	0	Increase (decrease) in long-term debt	0
Decrease (increase) prepaids	0	Gain (loss) on debt retirement	0
Decrease (increase) in tax refund receivable	0	Net long-term debt financing (retirement)	0
Decrease (increase) in deferred tax assets	0	Increase (decrease) in equity	326918
Decrease (increase) in other oper. current assets	0	(Beg.) R/E	0
Decrease (increase) in other oper. non-current assets	0	Net (income) loss	0
		End R/E	0
		Dividends declared	0
		Increase (decrease) in Dividends Payable	0
		Dividends (paid)	0
		Increase (decrease) other non-operating liabilities	0
		Other unexplained increase (decrease) in R/E	0
		Financing cash flow	326918
Changes in operating-related liabilities:			
Increase (decrease) accounts payable	0		
Increase (decrease) accruals	0		
Increase (decrease) deferred revenue	0		
Increase (decrease) in taxes payable	0		
Increase (decrease) in deferred tax liabilities	0		
Increase (decrease) in other oper. current liab.	0		
Increase (decrease) in other oper. non-current liab.	0		
Increase (decrease) in accrued interest payable	0		
Subtotal: Changes in operating assets & liabilities			
	0		
Operating cash flow	0		

YEAR 1-20			
Operating cash flow: enter values		Investing cash flow	
Net income	0	(Increase) in PP&E, net, cash, Tax receivables con investment	0
(Gain) loss on disposal of PP&E	0	Depreciation and amortization (expense)	0
(Gain) loss on disposal of investments	0	Gain (loss) on sale of PP&E	0
Depreciation	0	Capital expenditures	0
Amortisation	37217	Decrease (increase) in investments	0
		Gain (loss) on sale of investments	0
		Equity method income (loss)	0
		(Purchase) sale of investments	0
		Decrease (increase) in goodwill & intangibles	0
		Amortization (expense) and impairment (charge)	0
		(Purchase) sale of intangibles	0
		Decrease (increase) in other assets	0
		Gain (loss) on sale of other non-operating assets	0
		(Purchase) sale of other non-operating assets	0
		Investing cash flow	0
Changes in operating-related assets:		Financing cash flow	
Decrease (increase) receivables	0	Increase (decrease) in short-term debt	0
Decrease (increase) inventory	0	Increase (decrease) in long-term debt	0
Decrease (increase) prepaids	0	Gain (loss) on debt retirement	0
Decrease (increase) in tax refund receivable	8188	Net long-term debt financing (retirement)	0
Decrease (increase) in deferred tax assets	0	Increase (decrease) in equity	0
Decrease (increase) in other oper. current assets	0	(Beg.) R/E	0
Decrease (increase) in other oper. non-current assets	0	Net (income) loss	0
		End R/E	0
		Dividends declared	0
		Increase (decrease) in Dividends Payable	0
		Dividends (paid)	0
		Increase (decrease) other non-operating liabilities	0
		Other unexplained increase (decrease) in R/E	0
		Financing cash flow	0
Changes in operating-related liabilities:			
Increase (decrease) accounts payable	0		
Increase (decrease) accruals	0		
Increase (decrease) deferred revenue	0		
Increase (decrease) in taxes payable	0		
Increase (decrease) in deferred tax liabilities	0		
Increase (decrease) in other oper. current liab.	0		
Increase (decrease) in other oper. non-current liab.	0		
Increase (decrease) in accrued interest payable	0		
Subtotal: Changes in operating assets & liabilities			
	8188		
Operating cash flow	45405		

Source: Cash Flow Construction Indirect Method Statement of Cash Flows Charles W. Mulford

	Operating cash flow	Investing cash flow	Financing cash flow	Net cash flow
2020	43,807	0	5,590	48,397
2021	43,588	0	6,370	49,958
2022	44,382	0	7,165	51,547
2023	45,191	0	7,974	53,165
2024	46,015	0	8,798	54,813
2025	46,854	0	9,636	56,490
2026	47,708	0	10,491	58,198
2027	48,578	0	11,360	59,938
2028	49,463	0	12,245	61,708
2029	50,364	0	13,147	63,511
2030	51,282	0	14,065	65,347
2031	52,217	0	14,999	67,216
2032	53,168	0	15,951	69,120
2033	54,137	0	16,920	71,057
2034	55,124	0	17,907	73,030

