



D.T2.5.1

Report of the pilot activities to assess Industrial sectors RE projects in the Veneto region

WP T2: Activity 2.5 PA 2: Improving energy efficiency in Industry Sector

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Introduction

The FIRECE project aims to contribute to the achievements of targeted results of Regional Energy Plans through an increased use of (innovative) financial instruments in the Central Europe area. The particular focus is on public support to industry to invest into energy efficiency and renewable energy sources.

The activity 2.5 *Improving energy efficiency in Industry Sector* includes Pilot Actions carried out in five partner countries to assess Industrial sector RE projects using the Project level tool developed in WP T1 (O.T1.4) and updated in WP T2 (O.T2.2). The goal is to assess the public investments to support Industry low carbon transition: analysis of projects/investment plans elaborated by SMEs on EE/RES to verify their quality and quantity contribute to achieve the Energy Plans' targets.

The Project level tool main focus is to evaluate economic parameters of a particular project (e.g. NPV - net present values, CF - cash flow, etc.) as well as its environmental benefits in terms of decreased carbon emissions.

This report summarizes the activities that were carried out in the Veneto Region (Italy)

The analysis has been conducted using the tool provided by the partner of the project ENVIROS by implementing the necessary parameters for the calculations.

An analysis was conducted on the main Italian emission factors in order to implement the calculation tool. This data has been the subject of research and analysis on technical literature and on official portals provided for example by INEMAR and SINANET.

Unfortunately, due to privacy data protection, it was not possible to retrieve some data of the companies to be analyzed such as their sectors of belonging. This situation did not allow, in a similar way, to calculate the rate of return (opportunity cost) ¹ of the companies involved for all analyses; an average of 5% has been then applied.

¹ The **opportunity cost** In Economy it's the Cost resulting from the non-exploitation of anOpportunity granted to the economic entity. Quantitatively, opportunity cost is the value of the best left-out alternative. In other words, the opportunity cost is the sacrifice that an economic operator must make in order to make an economic choice.





All the companies included have carried out an efficiency intervention with the construction of a photovoltaic system. It was not possible to know for each intervention the peak power achieved.

It was not possible to know the type of plant built (presence of storage batteries, construction of support structures, etc.) preventing in fact a comparative analysis of the plants. This also prevents a summary check of the data provided.

It is specified that all interventions at present are not monitored and the actual development of savings isn't known.





EXECUTIVE SUMMARY

Country / region / PA2 Implementation area

State ITALIA

VENETO Region

Relevant energy saving funds:

POR 2007-2013 (FESR), Axis 2, intervention line 2.1 "renewable energy production and energy efficiency", Action 2.1.3. - Rotation fund and capital contributions for investments made by SMEs aimed at reducing energy consumption

Target group - SMEs involved: micro / small / medium-sized

SMEs are the main target group of the Pilot Action 2. Under Regulation (EU) No 651/2014 of the European Commission, micro, small and medium-sized enterprises (SMEs) are enterprises with fewer than 250 persons and whose annual turnover does not exceed EUR 50 million and / or \ their annual balance sheet total does not exceed EUR 43 million.

Number of SME's involved: 8

Type of projects: new/ finalized / ongoing projects (*please select the appropriate*)

Finalized projects

Implemented: 8

The analysis has been conducted with the data available and consistent with the performance of the Fund both from the financial and energy savings point of view. Performance of the plants built and the real remuneration of investments could be an additional aspect to be investigated, but confidentiality of data makes this analysis very difficult.

Energy saving measures / type of investments analysed

Renewable energy projects: 8

Measures in question:

Rooftop photovoltaic power plant: 8

Note: Interventions on photovoltaic systems are almost all of the interventions financed and carried out. More data of other investments were not available.





Analysing what is financed, it is clear that more than 33% of the total has been used for the construction of photovoltaic systems.

Involved stakeholders (financial actors)

COMPAGINE SO	%	
REGIONE DEL VENETO	REGIONE DEL VENETO	51,000
UniCredit	UNICREDIT S.P.A.	15,300
SINLOC.	SINLOC SISTEMI INIZIATIVE LOCALI S.P.A.	8,267
INTESA 🕅 SANDAOLO	INTESA SAN PAOLO S.P.A.	8,000
	BANCA NAZIONALE DEL LAVORO S.P.A.	6,500
BANCO BPM	HOLDING DI PARTECIPAZIONI FINANZIARIE BANCO POPOLARE S.P.A.	2,718
	BANCO POPOLARE SOCIETA' COOPERATIVA	2,550
MONTE DEI PASCHI DI SIENA BANCA DAL 1472	BANCA MONTE DEI PASCHI DI SIENA S.P.A.	4,223
Banca Popolare di Vicenza	BANCA POPOLARE DI VICENZA S.P.A.	1,201
Banca Popolare Volksbank	VOLKSBANK BANCA POPOLARE	0,131
VENETO BANCA	VENETO BANCA S.P.A.	0,110
	TOTALE	100,000





1. SELECTION OF THE FINANCIAL INSTRUMENT ADDRESSED TO ENERGY SAVINGS FOR INDUSTRY

Summary data on funding management can be summarized below.

FINANCIAL RESOURCES AVAILABLE

Financing	20,672,268.91
Grant	12,127,731.09
Tot	32,800,000.00

REQUESTS SUBMITTED	No.		
POSITIVE	215	Referred	
		to	
		200	ADMISSED
		1	CLOSED IN ADVANCE
		4	WITHDREW before contracting
		7	Withdrawn
		3	REVOKED before contracting
NEGATIVE	68		
WITHDREW by the	9		
Proposers			
INELIGIBLE	34		
Total	326		

INVESTMENTS ALLOWED	60,070,710.96
(on positive practices)	

COMMITTED AMOUNTS

(on positive practices)

Bank Share	23,403,539.86
Fund Share	23,403,539.86
Contribution Share	12,101,615.67
D-E	35,505,155.53
C-D-E	58,908,695.39

PAYMENTS

Total Funding	42,863,277.28
Total Fund Share	21,431,638.64





Total Contribution	11,172,386.05
G-H	32,604,024.69
F-H	54,035,663.33

Savings

ON EROGATE PRACTICES (declared)

	-
Total tCO ₂	23.130,95
Total GJ	424.715,34
kW Energy Saved	119.390.573,92
kW Installed Power	104.312,97

There is access to the Fund by companies operating in the sectors:

- more than 70% of cases;
- trade for about 11%;
- accommodation and catering services for 8%.

The remaining sectors have not had an impact. The primary sector was excluded from the Bando.

All the data (aggregated data), were provided by VENETO SVILUPPO regional financial agencies in charge of the establishment and management of the revolving fund and contributed to investments made by SMEs aimed at reducing energy consumption.

All participating companies decided not to use their own funds in the development of the projects, opting for funding equal to 77% of the entire amount of the project and a grant of 23%.

The analysis tool provided the possibility of simulating investment scenarios in which there was participation in the company's equity projects.





2.SELECTION OF SME's INVESTMENT PROJECTS FOR THE ASSESSMENT

2.1 Criteria followed to identify projects

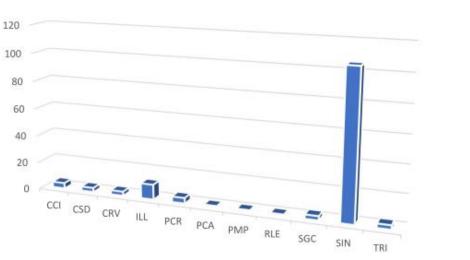
The projects analyzed were those with available and accessible data

2.2 Description of SME's investment projects analysed

The analysis includes only the projects already implemented. Project energy performance testing is NOT available.

Half of the projects represent the installation of renewable energy sources, in particular photovoltaic systems.

In general, all funding covered the types of interventions that can be summarized in the following table:



DATASHEET·/·TYPE·OF·INVESTMENT·¶ by·number·of·projects¶

N. DATASHEET - DESCRIPTION

- 4 CCI COGENERATION WITH INTERNAL COMBUSTION ENGINES
- 3 CSD SOLAR COLLECTORS FOR PURPOSES OTHER THAN HEATING ENVIRONMENTS
- 3 CRV COMBUSTION OF PLANT RESIDUES
- 11 ILL HIGH-PERFORMANCE LIGHTING SYSTEMS WITH LED LAMPS
- 4 PCR HIGH-EFFICIENCY ELECTRIC HEAT PUMP FOR RE-HEATINGDAMENTO NON-RESIDENTIAL ENVIRONMENTS





- 1 PCA HIGH-EFFICIENCY ELECTRIC HEAT PUMP FOR HEALTH WATER HEATING
- 1 PMP HEAT PUMP DRAGGED BY FIRST ENGINE
- 1 RLE RE-REFINING POWER LINES TRIPHASI
- 3 SGC HEAT GENERATOR REPLACEMENT
- 105 SIN SCHEDA FOR INTERVENTS NOT CODIFICATS (mainly photovoltaic systems and replacements of production plants)
- 3 TRI TRIGENERATION WITH INTERNAL COMBUSTION ENGINES

The data available for analysis relate only to interventions to build photovoltaic systems.

Id	SME	investment type	total investment	loan	Own resources	Grant	expected savings in kWh	energy carrier saved
1	Name 1	Photovoltaic	83,110.00	63,994.70	0.00	19,115.30	79130	Electricity
2	Name 2	Photovoltaic	196,250.00	151,112.50	0.00	45,137.50	348230	Electricity
3	Name 3	Photovoltaic	40,100.00	30,877.00	0.00	9,223.00	39130	Electricity
4	Name 4	Photovoltaic	84,275.10	64,891.82	0.00	19,383.28	118050	Electricity
5	Name 5	Photovoltaic	290,138.00	223,406.26	0.00	66,731.74	104875	Electricity
6	Name 6	Photovoltaic	202,750.00	156,117.50	0.00	46,632.50	152770	Electricity
7	Name 7	Photovoltaic	152,750.00	117,617.50	0.00	35,132.50	203560	Electricity
8	Name 8	Photovoltaic	155,844.15	120,000.00	0.00	35,844.15	144510	Electricity

The main features of the projects are summarized in the table below.

The implementation of the projects was motivated by achieving energy savings and/or decreasing dependence on external energy sources.





3. CONTRIBUTION OF SME's PROJECTS TO ACHIEVE REGIONAL ENERGY TARGETS

The European Union has set a target of progressively reducing its greenhouse gas emissions until 2050. The main climate and energy targets are set in the "2020 Climate and Energy Package" and the consequent "2030 Framework for Climate and Energy". These targets are set to put the EU on the road to transformation towards a low-carbon economy, as described in the 'Long-Term Strategy 2050'.²

The objectives are set in three areas, including:

- Improving energy efficiency,
- Generating energy from renewable energy sources,
- Reducing greenhouse gas emissions,

1990 used as a reference (there is Table 2 for specific objectives).

Year	Energy efficiency target	RES goal	Target to reduce greenhouse gas emissions (non-ETS sectors)
2020	20 %	20 %	20% (10%)
2030	32.5 %	32 %	40% (30%)
2050	significant futu	80 %	

Table 2 - EU Energy and Climate Policy Goals

As a result of the EU-wide targets, individual targets have also been set for each Member State. Table 3 shows the relevant objectives for Italy.

Table 3 - Italy - Goals and Performance

Year	Energy efficiency target	RES goal	Target for reducing greenhouse gas emissions (non-ETS sectors)
2020	24	17	(13%)

² https://ec.europa.eu/clima/policies/strategies_en





2030 43	30	33%
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Financial mechanisms are considered one of the main tools to promote and support the implementation of energy saving projects and the installation of new types of renewable energy.

With the implementation of specific energy-saving projects, SMEs and other companies contribute directly to national (and therefore European) energy and climate targets.

The implementation of the projects was motivated by achieving energy savings and/or decreasing dependence on external energy sources.





4. ACTIVITIES CARRIED OUT TO ASSESS INDUSTRIAL SECTORS RENEWABLE ENERGY PROJECTS

• Meeting with Local actors and Financial Instruments

The pilot action took place during COVID-19 and therefore meetings with Local Actors have been replaced by several contacts and online meetings. Actors involved:

Regional department for Energy

Regional financial agency

• IT tool adaptation in order to analyse SME's projects performance in view to contribute to the Energy targets

The tool(particularly the backstage) was initially developed in the Czech language creating an initial difficulty for its understanding and use.

Within the excel file there is the option to select the language but only a few od them were working.

The emission factors necessary for the operation of the software required research both in the industry literature and on sites that are not always simple. Not all data required were available or consistent with the project area only

After an initial first difficulty, with the assistance of ENVIROS, the tool worked making it easy to read the results.

It would have been useful to make the cast model available to possibly adapt it to different realities.





5. ASSESSMENT PROCEDURE OF SME's PROJECTS

5.1 Input and output data of the investment assessment

As preparatory activity a user-friendly IT instrument was developed as the final result of an analysis of public investments addressed to Industry low-carbon transition projects and the identification of quality and quantity criteria to be applied for the assessment analysis. The tool focuses on the evaluation of the project's economic parameters and environmental benefits.

Investment/funding related inputs:

- The Total investment
- Type of financing (Loan, Subsidy, Own resources)
- The Interest rate
- The Repay of the loan
- The Discount rate
- The Lifetime of the project/measure

Energy saving related inputs:

- Electricity
- Natural Gas
- Coal
- Heat
- Solid biofuels
- Gaseous biofuels
- Other fuels

Figure outputs

The following figure outputs are obtained from the evaluation of SME's investment project:

- The expected drop of CO2eq emissions
- The expected Cash Flow
- The NPV Net Present Value
- The simple payback





The equivalent scenario is also calculated that relates to the situation when the project does not use any financial instrument (loan) and the co-financing is secured only by own resources. The NPV of both scenarios is the same, while the cash flow becomes positive sooner in case of the equivalent scenario - as shown in the figures. The investment with this direct investment is completed by the missing subsidy share.

The input and output data of the 8 SME's investment assessment are presented in the attached tables:





5.2 TABLES / IT TOOL CALCULATION RESULTS

Project No.1

Project No. / N	ame 1						
General investment data							
Organization size ())			Micro	Sm	all	Average	
Organiza		.e ())	Nd	Ν	d	Nd	
Туре	of busir	ness	Productio	on		Services	
(Ple	ease tick)	Nd			Nd	
Type of economic	c activi	ty to which the		N.	d.		
invest	ment re	efers					
Type/ subje	ect of in	vestment	Please tick or	r indicat energy		share of your	
Installation of phot productio							
	Installation of solar thermal systems (for heat generation)						
		Investment/fir	nancing input				
			In Euro			As % of total	
		Total	83.1	00			
Investment		Loan	63.99	4,70		77%-	
investment		Own resource	0			0%	
		Grant	19.11	5,30		23%	
Lean		Interest rate	(in %)			5.45	
Loan		Refund (in ye	ears)			7	
Own resource	Discount rate (in %) (if no data uses the typical country value)				5 %		
Measure		Duration of measurement				25	
		Input related to	power saving	gs			





Type of energy	The value of energy saved	Energy unit	Average cost of energy unit in euros			
Electricity	79.13	MW/h	200th/MW/h			
Natural gas						
		Output data				
Expected decline i	n CO2 emissions	42,018	,030 kg			
CH4 emissions ex	pected to fall	418,756 g				
N2O emissions ex	pected to fall	344,690 g				
Expected fall in C	02eq emissions	42,131,217 kg				
Expected c	ash flow	15,826 euros/year				
Net currer	nt value	158.008,51				
Simple return	(in years))	5				
	Equivalent scenario without loan investment					
Investments in own	resources in Euro	65.042,26				
Grant shar	e (in %)	22%				





Project No. / N	ame	me 2						
General investment data								
Organization size ())			Micro Small		all	Average		
Organiza	tion siz	e())		Nd	Ν	d	Nd	
Туре	of busir	ness		Productio	on		Services	
(Ple	ease tick)		Nd			Nd	
Type of economic invest	c activi ment re		ch the		N.	d.		
Type/ subje	ect of ir	ivestment	t	Please tick o		e the % savings	share of your	
Installation of phot productio			or the					
Installation of solar ge	thermal neration)		or heat					
		Investr	nent/fir	nancing input				
				In Euro			As % of total	
		Tot	Total 196.250,0		50,00			
Investment		Loa	an	151 112.5			77%-	
investment		Own res	source	0			0%	
		Gra	nt	45. 1	37.5		23%	
Loon		Inter	rest rate	(in %)		<u> </u>	5.08	
Loan		Ref	und (in ye	ears)			7	
Own resource	Discoun	Discount rate (in %) (if no data uses the typical country value)					5 %	
Measure	Duration of measurement					25		
		Input rel	ated to	power saving	gs			
Type of energy		value of sy saved	E	Energy unit		Average cost of energy unit in euros		





Electricity	348,23	MW/h	200th/MW/h					
Natural gas								
	Output data							
Expected decline i	n CO2 emissions	184,910	,130 kg					
CH4 emissions ex	pected to fall	1,842,	,833 g					
N2O emissions ex	pected to fall	1,516,890 g						
Expected fall in C	02eq emissions	185,408,234 kg						
Expected c	ash flow	69,646euros/year						
Net currer	it value	716.386,72						
Simple return	(in years))	3						
	Equivalent sce	nario without loan investme	nt					
Investments in own	resources in Euro	151 556,39						
Grant shar	e (in %)	23%						





Project No. / N	ame 3						
General investment data							
Organization size ())			Micro Small		nall	Average	
Organiza		.e ())		Nd	N	ld	Nd
Туре	of busir	ness		Productio	on		Services
(Ple	ease tick)		Nd			Nd
Type of economic invest	c activi ment re	-	ch the		N.	d.	
Type/ subje	ect of ir	ivestment	t	Please tick o		e the % savings	share of your
Installation of phot productio		-	or the				
Installation of solar ge	thermal neration)		or heat				
		Investr	nent/fir	nancing input			
				In Euro			As % of total
		Tot	al	40.100			
Investment		Loa	n	30.8	377		77%-
		Own res	source	0			0%
		Gra	nt	9.2	23		23%
Loan		Inter	rest rate	(in %)		4.05	
LUan		Ref	und (in ye	ears)			4
Own resource	Discount rate (in %) (if no data uses the typical country value)				cal	5 %	
Measure	ure Duration of measurement						25
		Input rel	ated to	power saving	gs		
Type of energy		value of cy saved	E	Energy unit		Average cost of energy unit in euros	





Electricity	39,13	MW/h	200th/MW/h	
Natural gas				
		Output data		
Expected decline i	n CO2 emissions	20,778,	,030 kg	
CH4 emissions ex	pected to fall	207,0)76 g	
N2O emissions ex	pected to fall	170,450g		
Expected fall in C	02eq emissions	20,834,001 kg		
Expected c	ash flow	7,826euros/year		
Net currer	it value	80.099,30		
Simple return	(in years))	5		
	Equivalent sce	nario without loan investme	nt	
Investments in own	resources in Euro	30.199,91		
Grant shar	e (in %)	25%		





Project No. / N	ame 4							
General investment data								
Organization size ())			Micro Small		all	Average		
Organiza		.e ())		Nd	Ν	d	Nd	
Туре	of busir	ness		Productio	on		Services	
(Ple	ease tick)		Nd			Nd	
Type of economic invest	c activi ment re		ch the		N.	d.		
Type/ subje	ect of ir	ivestment	t	Please tick o		e the % savings	share of your	
Installation of phot productio			or the					
Installation of solar ge	thermal neration)		or heat					
		Investn	nent/fir	nancing input				
				In Euro			As % of total	
		Tot	al	84.275,10				
Investment		Loa	an	64.89	1,82		77%-	
investment		Own res	source	0			0%	
		Gra	nt	19.38	3,28		23%	
Loan		Inter	rest rate	(in %)		4.70		
LUan		Ref	und (in ye	ears)			5	
Own resource	Discount rate (in %) (if no data uses the typical country value)				cal		5 %	
Measure	Duration of measurement					25		
Input related to power savings								
Type of energy		value of cy saved	E	Energy unit		Average cost of energy unit in euros		





Electricity	118,05	MW/h	200th/MW/h			
Natural gas						
	(Output data				
Expected decline i	n CO2 emissions	62,684,	.550 kg			
CH4 emissions ex	pected to fall	624,7	721 g			
N2O emissions ex	pected to fall	514,226 g				
Expected fall in C	02eq emissions	62,853,407 kg				
Expected c	ash flow	23,610 euros/year				
Net currer	nt value	268.410,64				
Simple return	(in years))	4				
	Equivalent scenario without loan investment					
Investments in own	resources in Euro	64.347,39				
Grant shar	e (in %)	24%				





Project No. / N	ame 5						
General investment data							
Organization size ())			Micro Small		nall	Average	
Organiza		e())		Nd	Ν	ld	Nd
Туре	of busir	ness		Productio	on		Services
(Ple	ease tick)		Nd			Nd
Type of economic invest	c activi [:] ment re	-	ch the		N.	d.	
Type/ subje	ect of ir	ivestment	t	Please tick o		e the % savings	share of your
Installation of phot productio		-	or the				
Installation of solar ge	thermal neration)		or heat				
		Investr	nent/fir	nancing input			
				In Euro			As % of total
		Tot	al	290.138			
Investment		Loa	n	223.40	06,26		77%-
		Own res	source	0			0%
		Gra	nt	66.73	1,74		23%
Loan		Inter	rest rate	(in %)		4.9	
LUan		Ref	und (in ye	ears)		7	
Own resource	Discount rate (in %) (if no data uses the typical country value)				cal	5 %	
Measure	Duration of measurement						25
		Input rel	ated to	power saving	gs		
Type of energy		value of cy saved	E	Energy unit		Average cost of energy unit in euros	





Electricity	104,88	MW/h	200th/MW/h			
Natural gas						
		Output data				
Expected decline in	n CO2 emissions	55,688,	,625 kg			
CH4 emissions ex	pected to fall	554,9	999 g			
N2O emissions ex	pected to fall	456,836 g				
Expected fall in C	02eq emissions	55,838,637 kg				
Expected c	ash flow	20,975 euros/year				
Net currer	it value	73.023,18				
Simple return	(in years))	14				
	Equivalent scenario without loan investment					
Investments in own	resources in Euro	222.597,31				
Grant shar	e (in %)	235	%%			





Project No. / N	lame 6							
General investment data								
Organization size())			Micro	Sm	all	Average		
Organiza	Organization size ())			Nd	Ν	d	Nd	
Type of business			Production		9	Services		
(Ple	ease tick)		Nd			Nd	
Type of economic invest	c activi ment re		ch the	N.d.				
Type/ subje	ect of ir	ivestment	t	Please tick or indicate the % share of your energy savings				
Installation of phot productio			or the					
	Installation of solar thermal systems (for heat generation)							
Investment/financing input								
				In Euro			As % of total	
		Tot	al	202.750,00				
Investment		Loan		153.117,50			77%-	
		Own res	source	0			0%	
		Gra	nt	46.632,50			23%	
Loan	Interest ra			(in %)			3.25	
LUan		Refund (in years)				6.5		
Own resource	Discount rate (in %) (if no data uses the typical country value)				cal	5 %		
Measure	Duration of measurement					25		
Input related to power savings								
Type of energy	The value of E energy saved			nergy unit	Ave	Average cost of energy unit in euros		





Electricity	152.770	MW/h	200th/MW/h					
Natural gas								
	Output data							
Expected decline i	n CO2 emissions	81,120,870 kg						
CH4 emissions ex	pected to fall	808,459g						
N2O emissions ex	pected to fall	665,466 g						
Expected fall in C	O2eq emissions	81,339,390 kg						
Expected c	ash flow	30,554euros/year						
Net currer	nt value	277.979,35						
Simple return	(in years))	7						
Equivalent scenario without loan investment								
Investments in own	resources in Euro	152.647,03						
Grant shar	re (in %)	25%						





Project No. / N	lame 7							
General investment data								
Organization size ())			Micro	Small		Average		
			Nd	Ν	d	Nd		
Type of business			Production		2	Services		
(Ple	ease tick)		Nd			Nd	
Type of economic invest	c activi ment re		ch the	N.d.				
Type/ subje	ect of ir	ivestment	t	Please tick or indicate the % share of your energy savings				
Installation of phot productio			or the					
	Installation of solar thermal systems (for heat generation)							
Investment/financing input								
				In Euro			As % of total	
		Tot	al	152.750				
Investment		Loan		117.617,50			77%-	
investment		Own res	source	0			0%	
		Gra	nt	35.132,50			23%	
Loan	Interest rate (in %)				5,1			
LUan		Refund (in years)				5		
Own resource	Discount rate (in %) (if no data uses the typical country value)				cal	5 %		
Measure	Duration of measurement					25		
Input related to power savings								
Type of energy	The value of E energy saved			Energy unit		Average cost of energy unit in euros		





Electricity	203.560	MW/h	200th/MW/h					
Natural gas								
	Output data							
Expected decline i	n CO2 emissions	108,090,360 kg						
CH4 emissions ex	pected to fall	1,077,240 g						
N2O emissions ex	pected to fall	886,707 g						
Expected fall in C	02eq emissions	108,381,530 kg						
Expected c	ash flow	40,712 euros/year						
Net currer	nt value	455.849,85						
Simple return	(in years))	4						
Equivalent scenario without loan investment								
Investments in own	resources in Euro	117.942,82						
Grant shar	re (in %)	23%						





Project No. / N	lame 8							
General investment data								
Organization size ())			Micro	Small		Average		
			Nd	Ν	ld	Nd		
Туре	Type of business				Production			
(Ple	ease tick)		Nd			Nd	
Type of economic invest	c activi [:] ment re	-	ch the	N.d.				
Type/ subje	ect of ir	ivestment	t	Please tick or indicate the % share of your energy savings				
Installation of phot productio		-	or the					
Installation of solar ge	thermal neration)		or heat					
Investment/financing input								
	Total			In Euro			As % of total	
				155.844,15				
Investment		Loa	an	120.000			77%-	
		Own res	source	0			0%	
		Gra	nt	35.844,15			23%	
Loan	Interest r			(in %)		!	5,052	
LUan		Refund (in years)				5		
Own resource	Discount rate (in %) (if no data uses the typical country value)				cal	5 %		
Measure	Duration of measurement					25		
Input related to power savings								
Type of energy	The value of E energy saved			Energy unit		Average cost of energy unit in euros		





Electricity	144.510	MW/h	200th/MW/h					
Natural gas								
	Output data							
Expected decline i	n CO2 emissions	76,734,810 kg						
CH4 emissions ex	pected to fall	764,747 g						
N2O emissions ex	pected to fall	629,486 g						
Expected fall in C	02eq emissions	76,941,515 kg						
Expected c	ash flow	28,902 euros/year						
Net currer	nt value	287.170,65						
Simple return	(in years))	5						
Equivalent scenario without loan investment								
Investments in own	resources in Euro	120.172,54						
Grant shar	re (in %)	23%						





Annex: Tool - Description of inputs and outputs

Investment/funding related inputs:

- The Total refers to the total investment in the project, including each funding share (Loan, Subsidy, Own resources).
- The Loan is the share of the loan funding on the total investment
- The Subsidy is the share of the subsidy funding on the total investment
- The Own resources is the share of own funding by the project beneficiary on the total investment
- The Interest rate is the rate linked to the loan share
- The Repay is the period length to repay the loan
- The Discount rate refers to the rate used for the discount factor on cash flow, in order to estimate the NPV
- The Lifetime is the expected lifetime of the project

Energy saving related inputs:

- Electricity
- Natural Gas
- Coal
- Heat
- Solid biofuels
- Gaseous biofuels
- Other fuels

Figure outputs

The following figure outputs are obtained from the evaluation of SME's investment project:

- The expected drop of CO2eq emissions is the sum of CO2, CH4 and N2O emissions
- The expected Cash Flow is calculated based on the energy savings and the energy cost inputs
- The NPV is the Net Present Value calculated for the project funding mechanism
- The simple payback is the total investment divided by the Cash Flow
- The equivalent scenario: Subsidy share is a theoretical share of subsidy that would be needed in case of implementation of the equivalent scenario (without loan) to keep the same NPV of the project.





 The equivalent scenario: Own resources is the share of own funding by the project beneficiary in case of the equivalent scenario.