Annex 4: Methodology used to calculate each energy efficiency measure's energy savings in respect of new and ongoing measures in the 2014–2016 period, with an outlook up to 2020

#### **Buildings sector**

Measure 1.1 3AP					Improvements in the thermal performance of buildings –				
					Single-family buildings				
BUILDINGS sector					Source of financing: Own funds				
Reporting period					2014–2016 Ministry of Transport, Construction and Regional				
Responsible ministry					Development		ction a	_	
	leat				Electricity	Fuels		Other: Wood	
%  1	5 %		5 %					5 %	
Planned		Energy saving energy consur	s – FEC (final mption) <sup>1</sup>		Reduction in the primary energy	ne consumption of sources	Finan	cing	
Year		TJ	GWh		TJ	GWh	EUR 1	housands	
2014		70	19	9.45					
2015		70	19	9.45					
2016		65	18	8.06					
2014–2016		205	5	6.95					
2017		65	18	8.06					
2018		65	18	8.06					
2019		65		8.06					
2020		65		8.06					
2017-2020		260		2.23					
Characteristics of measure							1		
(description of the measure a	and	Renovation of	f single-family	buil	dings with a r	ninimum 20 % he	at requ	irement saving.	
method used to make saving	s)		,		Ū		•	ŭ	
Detailed description of the method to calculate energy savings (so that savings can subsequently be recalculated and verified)	i	The initial co energy class initial conditi	ndition of a sin D. The energy on of the single	gle- savi e-fai	family building ng is the diffe nily building.	g is considered to rence between th	o be th ne ener r area (	gy supplied and the of a single-family	
Assumptions and estimates i the calculation of energy sav		Expert estima	ates.						
Reason for the use of estimate (e.g. if there are gaps in information)									
Monitoring and verification of energy savings made	f the	Monitoring ta	ikes place via t	he II	NFOREG infor	mation system			
Overall evaluation and way forward (success of the measure, continuation or closure of the measure)	е	This change will entail a tightening of the minimum energy performance requirements for buildings (from 2016 onwards), based on which an expert estimate is drawn up further to the new Implementing Decree No 364/2012. Attainment of the upper limit of energy class A1 for the global indicator determining the ultra-low-energy standard from 2016 – buildings undergoing major renovation must comply with this requirement insofar as this is technically, functionally and economically feasible.							
Overlapping anticipated wit another measure     Duplicate counting of saving Interaction with other measing (support and horizontal)	gs		verlap with the unting is preclu			ng insulation me	asure (	Measure 1.2.1).	

<sup>1</sup> The following conversion rate Is used to convert energy savings: 1 GWh = 3.6 TJ.

Measure 1.2.1 3AP	Improvements in the thermal performance of buildings – Multi-family buildings									
Sector					ousing Development Fund					
Reporting period			2014–2016	onig. Otate He	rusing bevelopment runa					
Duration of the measure (from – t	0)		1996 onwards							
•	0,		Ministry of Transport, Construction and Regional							
Responsible ministry		<del>,</del>	Development							
Energy savings apply to:	Heat	Natural gas	Electricity	Fuels	Other:					
%	70 %	30 %								
Planned	Energy saving energy consu	gs – FEC (final mption)	Reduction in the consumption of energy sources	primary	Financing					
Year	TJ	GWh	TJ	GWh	EUR thousands					
2014	145.91	40.53			67,726.67					
2015	145.91				67,726.67					
2016	145.91				67,726.67					
2014–2016	437.73				203,180.00					
2017	145.91				67,726.67					
2018	145.91				67,726.67					
2019	145.91				67,726.67					
2020	145.91				67,726.67					
2017-2020										
2017-2020	583.64				270,906.67					
Characteristics of measure (description of the measure and	established i	in 1997 under Act N	lo 124/1996 on	the State Hou	evelopment Fund was using Development Fund; it					
method used to make savings)	provides support for the expansion and modernisation of housing stock, particularly in									
method used to make savings)	the form of le	ong-term soft loans	<b>5.</b>							
Detailed description of the	Finances: th	e same annual bud	get as in 2014 i	s projected f	or this activity (Source:					
Detailed description of the method to calculate energy	State Housin	g Development Fu	nd)							
	Because information on the projected energy savings is not available on a project-by-									
savings (so that savings can	project basis, these savings were determined by means of an expert estimate drawing									
subsequently be recalculated	on the investment intensity of similar Slovseff projects. The savings are indicated in									
and verified)	the year plar	ned for renovation								
	- It is assu	med that the inves	tment intensity	of State Hou	ising Development Fund					
	projects	will be similar to t	hat of Slovseff	projects.						
Assumentions and actionates in	<ul> <li>Estimate u</li> </ul>	sed in the calculati			r MWh (building renovation					
Assumptions and estimates in	projects Sla	vseff)	•	•	, ,					
the calculation of energy savings			hat the future b	udget for 201	4-2020 will be the same as					
	in 2014	EUR 50 795 000 pe	er year, i.e. 75 %	6 of the total	investment costs) plus own					
		ès (25%).	•							
	Information	on the projected en	ergy savings is	not available	e on a project-by-project					
Reason for the use of estimates		are no records of th								
(e.g. if there are gaps in relevant					nsumption in renovated					
information)					interaction between the					
·	register of b	uildings supported	and energy pe	rformance ce	rtificates.					
	See above.	<u> </u>	<u> </u>							
Monitoring and verification of the	Verification -	only on the basis	of energy perfo	ormance certi	ificates; energy savings are					
energy savings made	not verified.	,	371		3, 14					
Overall evaluation and way		ate Housing Develo	pment Fund is	a highly pop	ular financial instrument for					
forward										
(success of the measure,	the renovation of residential buildings, it does not have the capacity to cover demand for soft loans. Savings are not the primary objective of the instrument; monitoring and									
continuation or closure of the	verification are insufficient. This measure is to be continued in the new period; the									
measure)		nd verification of e								
- Overlapping anticipated with					F					
another measure	There is ove	rlanning with the m	easure: Improv	ements in th	e thermal performance of					
- Duplicate counting of savings		Multi-family building			5 por formance of					
- Interaction with other measures					anning thereof					
(support and horizontal)	- apriloate co	animing or onlongy se	go io pieve	a iii tiio pi						
(capper and normalital)	1									

Magazira 4 2 2 2AD			Improvements	in the thermal perf	ormance of buildings –		
Measure 1.2.2 3AP			Multi-family buildings Source of financing: State Housing Development Fund –				
Sector			JESSICA 2013		g = 0.0.0p		
Reporting period			2014–2016				
Duration of the measure (fro	om – to)		2013-2014				
Responsible ministry				, Ministry of Agric	ction and Regional ulture and Rural		
Energy savings apply to:		Natural gas 30 %	Electricity	Fuels	Other:		
% Planned	Energy savings –		Reduction in the primary energy	ne consumption of	Financing		
Year	TJ	GWh	TJ	GWh	EUR thousands		
2013	0.0		_		14,637		
2014	24.3				736		
2015	0.0	0.00	i		0		
2016	0.0				0		
2014–2016	24.3	7.30			736		
Characteristics of measure (description of the measure and method used to make savings)	ICOSTS ()Whore of residential and non-residential premises represented by facility managers of l						
method to calculate energy savings (so that savings can subsequently be recalculated and verified)  Assumptions and estimates in the calculation of energy	Bottom-up. The p calculated by dra the minimum ene result of major re buildings, as amount Transport, Const It is assumed tha the mean value o	planned energy saving on energy con energy con ergy performance recently accordanced, and the correction and Regionat each supported but f minimum energy c	ngs are calcula sumption figu quirements of ince with Act N esponding Imp al Developmen illding which is onsumption re	ated for each projects for the previous buildings which a so 555/2005 on the lementing Declarate No 364/2012. Se renovated, followequirements for se	ear planned for renovation. ect. Energy savings are us two calendar years and are to be achieved as a e energy performance of ation of the Ministry of wing renovation, will attain pace heating under energy		
		family buildings (i.e	•				
estimates (e.g. if there are gaps in relevant	necessary to rely are implemented the savings unde	As not all successf those projects are	ate of the ener ul applicants on not counted.	gy savings that w disclose energy c	ill be achieved once they onsumption information,		
Monitoring and verification of the energy savings made	the savings under those projects are not counted.  - Under the contract between the managing authority (the Ministry of Agriculture and Rural Development) and the State Housing Development Fund, it is compulsory to monitor the energy savings achieved. Monitoring is carried out by reference to State Housing Development Fund information and by means of the monitoring system operated by the Slovak Innovation and Energy Agency. The Slovak Innovation and Energy Agency is also responsible for verifying energy consumption information.  - Successful applicants are required to provide information on actual energy consumption used for space heating during the five years after renovation.						
Overall evaluation and way							
forward (success of the measure, continuation or	principle, i.e. pro fulfilment of the e	jects may run until 2 energy savings targe	2015. Energy savings may then be counted towards the et in the 2014–2016 period. The measure will continue in a will be financed by the IROP 2014–2020.				
Overlapping anticipated with another measure     Duplicate counting of     Savings	There is overlapp – Multi-family bu	•	e: Improveme	nts in the thermal	performance of buildings		

M 4 0 0 0 A D			Improvements i	n the thermal perf	formano	ce of buildings -	
Measure 1.2.3 3AP			Multi-family buil	dings		•	
Sector			Source of financing: State Housing Development Fund – EU 2014-2020, EU-funded residential building insulation				
Reporting period			2014–2016				
Duration of the measure (from - to	0)		2014-2020				
Responsible ministry				nsport, Construct Ministry of Agric			
Energy savings apply to: Heat	N		Development Electricity	Fuels		Other:	
% 70 %		0 %	,				
Planned	Energy saving energy consu	•	Reduction in the primary energy	e consumption of	Financ	eing	
Year	TJ	GWh	TJ	GWh	EUR t	housands	
2014	0.00					30,944	
2015	48.51					30,944	
2016	48.51	13.48				30,944	
2014–2016	97.03					92,833	
2017	48.51	13.48				30.944	
2018	48.51	13.48				30,944	
2019	48.51	13.48				30,944	
2020	48.51					00,044	
2017-2020	194.06					92,833	
2017-2020		e follows up on the		SICA Project fi	nonoio		
Characteristics of measure (description of the measure and method used to make savings)	loans to appl Owners of re unit owner as Lending is co the initial coi	easure, the State H licants seeking aid esidential and non-r ssociations, in urba ontingent on the de ndition (see Act No ely EUR 186 million	for the renovatesidential prenan areas in all sectoral to the sector of places and the sector of the	tion of residentian nises, represente self-governing re anned savings of the State Housing	Il buildi ed by fa gions a f at leas Develo	ings. acility managers or are eligible to apply. at 35 % compared to apply benefit fund).	
Detailed description of the		savings are calcula					
method to calculate energy		rgy requirement fo			ed resu	ultant such	
savings							
Assumptions and estimates in the calculation of energy savings	requirement. Financing depending on the allocation.  - Savings: Anticipated energy requirement for space heating (initial condition): 96.4 kWh/(m2.a); projected energy requirement for space heating after renovation: 35 % energy saving, i.e. approximately the mid-level of energy class C (60 kWh/m2a.)  - Projected average total floor area of residential buildings: 2 820m2  - Projected number of renovated buildings 2014–2020: 919  - Financing: 75 % loan, 25 % applicant's own funds.  - The energy savings are indicated in the year planned for renovation.					r renovation: 35 % (60 kWh/m2a.)	
Reason for the use of estimates							
(e.g. if there are gaps in	Γ						
information)							
Monitoring and verification of the energy savings made	Monitoring v	ia the ITMS under t	he IROP 2014-	2020.			
Overall evaluation and way							
forward (success of the measure,							
continuation or closure)							
	buildings – N	erlapping with the n Multi-family building unting of savings is	gs (own funds,	commercial ban	ks)".	performance of	

				Improvements	in the thermal perf	formance of buildings -		
Measure 1.2.4 3AP				Multi-family buildings				
BUILDINGS sector				Source of fina	ncing: Own funds			
Reporting period				2014–2016				
Duration of the measure (fro	om – to	o)						
Responsible ministry				Ministry of Tr Development		ction and Regional		
Energy savings apply to:	Heat	N	atural gas	Electricity	Fuels	Other:		
%	70 %	3	0 %					
Planned		Energy savin	gs – FEC	Reduction in the primary energe	he consumption of y sources	Financing		
Year		TJ	GWh	TJ	GWh	EUR thousands		
2014		15						
2015		15						
2016		15						
2014–2016		45						
2017		15	4.17					
2018		15						
2019		15						
2020		15						
2017-2020		60	16.67					
Characteristics of measure	_	_						
(description of the measure		Renovation of	of multi-family build	dings with a m	inimum 20 % hea	t requirement saving		
method used to make saving		T1				( INFOREO IO)		
Detailed description of the method to calculate energy						(source: INFOREG IS). be the upper limit of		
savings (so that savings car						e energy supplied and the		
subsequently be recalculate						er of housing units per		
and verified)			building is assume		The average mains	ici oi ilousiilg uiilis pei		
Assumptions and estimates	in			<u>u 10 00 101</u>				
the calculation of energy sa		Expert estim	ates					
Reason for the use of estimate								
(e.g. if there are gaps in rele	vant							
information)								
Monitoring and verification energy savings made	of the	Monitoring to	akes place via the I	NFOREG info	rmation system			
	1	This change	will entail a tighter	ing of the mir	nimum energy per	formance requirements for		
Overall evaluation and way						nate is drawn up further to		
forward	ŀ	the new Impl	ementing Decree N	lo 364/2012. A	ttainment of the u	pper limit of energy class		
(success of the measure, continuation or closure of the		A1 for the gl	obal indicator deter	rmining the ul	tra-low-energy sta	andard from 2016 –		
measure)	ne	buildings undergoing major renovation must comply with this requirement insofar as the						
,		is technically	, functionally and	economically	feasible.			
<ul> <li>Overlapping anticipated w</li> </ul>								
another measure		There is an o	verlap with the res	idential buildi	ng insulation mea	sure (Measure 1.2.1) and		
- Duplicate counting of savi						and EU-funded residential		
- Interaction with other mea		building inst	ılation measure (M	easures 1.2.2	and 1.2.3).			
(support and horizonta	I)							

Measure 1.2.5 3AP			Improvements in the thermal performance of buildings – Multi-family buildings					
Sector				ancing: Slovseff II				
Reporting period			2014–2016					
Duration of the measure (from - t	0)		As of 2010					
Responsible ministry	-/		Slovseff/ESG, Ministry of Economy					
Energy savings apply to: Heat	N	atural gas	Electricity	Fuels	Other:			
% x	x	9	x					
Planned	Energy saving	gs – FEC	F =	the consumption of	f Financing			
Year	TJ	GWh	TJ	GWh	EUR thousands			
2014	23.94	6.65			902			
2015	1.91	0.53			0			
2016	0.00				0			
2014–2016	25.86				902			
2017	0.00				0			
2018	0.00				0			
2019	0.00	0.00			0			
2020	0.00				0			
2017-2020	0.00				1 0			
Characteristics of measure			ı					
(description of the measure and method used to make savings)	Ongoing measure affecting savings in the 2014–2016 period. For a description, see the evaluation.							
Detailed description of the								
method to calculate energy								
savings (so that savings can	See the evalu	uation						
subsequently be recalculated								
and verified)								
Assumptions and estimates in	Assumation	all praisets are ph	voicelly com	mlatad buttba and	of 2014			
the calculation of energy savings	Assumption:	all projects are ph	ysically com	pieted by the end	Of 2014.			
Reason for the use of estimates								
(e.g. if there are gaps in relevant information)	See the evalu	uation						
Monitoring and verification of the energy savings made	See the evalu	uation						
Overall evaluation and way	A moasure o	ontinuing Slovseff	11					
forward		sure: 2010 End of n		1				
(success of the measure,		the same form en			oveeff III. a similar			
continuation or closure of the		Ministry of the Env		is followed by SI	ovsen III, a sillilai			
measure)	p. ogrannie (	inition y or the Env	Omnonej.					
- Overlapping anticipated with								
another measure	- Potential overlapping with Measure 1.2.4 Improvements in the thermal performance of							
- Duplicate counting of savings	buildings – Multi-family buildings (own funds).							
- Interaction with other measures	- Duplicate c	ounting of savings	: prevented.					
(support and horizontal)	l .							

Manager 4 2 5 2 A D	Measure 1.2.5 3AP					Improvements in the thermal performance of buildings –				
Measure 1.2.5 3AP			Multi-family bui	ldings		•				
Sector			Source of finan	cing: Slovseff III						
Reporting period			2014–2016							
Duration of the measure (from - t	o)		2014–2016							
Responsible ministry	•		Ministry of the Environment							
Energy savings apply to: Heat	N	atural gas	Electricity	Fuels		Other:				
% 65 %	35	5 %								
Planned	Energy saving	gs – FEC		e consumption of	Finan	icing				
Year	TJ	GWh	primary energy <b>TJ</b>	GWh	EUR	thousands				
2014	0.00	0.00				3,046				
2015	8.48	2.35				3,046				
2016	8.48					3,046				
2014–2016	16.95					9,138				
2017	8.48	2.35				0,100				
2018	0.00	0.00				0				
2019	0.00				1	0				
2020	0.00					0				
2017-2020	8.48					0				
2017-2020		e follows on from S		2014) and Slove	off I	2007 2010) but				
Characteristics of measure (description of the measure and method used to make savings)	incentive payments are covered with sales of greenhouse gas emission allowances by the Spanish government under a green investment scheme (Greening Programme). Under Slovseff III, the share of financing channelled into energy efficiency measures in the housing sector was contracted in favour of energy efficiency measures in industry and, in particular, RES:  - Energy efficiency in residential buildings: up to 20%  - Energy efficiency in industry: approximately 35 %  - RES: approximately 45 %  Financing takes place in much the same measure as under Slovseff I and II, i.e.									
	applicants ar with the set of The Spanish EUR 2 million These funds	e granted loans an conditions. The EB government provion for technical assi are available for ut	d provided wit RD provided E ded EUR 5 693 stance (consu ilisation up to	h incentive paym UR 40 million for 800 for incentive Iting, energy audi 31 July 2016.	ents the fire payments	upon compliance nancing of loans. tents and another rrangements, etc.).				
Detailed description of the						projected for energy				
method to calculate energy						/. Energy efficiency				
savings (so that savings can		calculated on the								
subsequently be verified)		nder the State Hou								
Assumptions and estimates in the calculation of energy savings	- Energy savings: the average investment intensity of energy efficiency measures in industry is taken to be EUR 1 294 per MWh (Slovseff II and projects contracted under the State Housing Development Fund – JESSICA initiative).  The savings are indicated a year after the planned project implementation									
Reason for the use of estimates	Specific projects have yet to be contracted.									
Monitoring and verification of the energy savings made	Monitoring a	nd verification: pro	ject administra	ator and the Minis	stry of	the Environment.				
Overall evaluation and way forward		sure: 2014 End of n								
Overlapping anticipated with another measure     Duplicate counting of savings     Interaction with other measures (support and horizontal)	performance	anticipated with ar of buildings – Mul unting of savings:	ti-family buildi		in the	thermal				

				h .			( ) () ()
Measure 1.3.1 3AP				Improvements in the thermal performance of buildings – Administrative buildings			
BUILDINGS sector					ancing: Own funds,	comn	nercial banks
Reporting period				2014–2016	og. •aa.,		
Duration of the measure (fro	m – to)						
Responsible ministry	,				ransport, Construct	ction a	and Regional
Energy savings apply to:	Heat	N	atural gas	Electricity	Fuels		Other:
%	x	х	-				
Planned	Energy s	saving	gs – FEC	Reduction in primary energ	the consumption of gy sources	Finar	ncing
Year	TJ		GWh	TJ	GWh	EUR	thousands
2014		79.2	22				
2015		79.2					
2016		99	-				
2014–2016	:	257.4					
2017		80					
2018		80					
2019		80					
2020		80					
2017-2020		320	88				
Characteristics of measure (description of the measure and method used to make savings)					a minimum 20 % h		
Detailed description of the method to calculate energy savings (so that savings can subsequently be recalculated and verified)	The initi energy of initial co adminis perform	The initial condition of an administrative building is considered to be the upper limit of energy class D. The energy saving is the difference between the energy supplied and the initial condition of the administrative building. The average floor area of an administrative building is considered to be the current average floor area under energy performance certificates.					
Assumptions and estimates the calculation of energy sav	ings Expert e						
Reason for the use of estima (e.g. if there are gaps in relevinformation)	building each an calculat perform make th	s wh d eve ed se ance	ery administrative be eparately for each a certificates in the	ng would oth ouilding and to administrative	nerwise have to be the saving in GWh e building. Conside	looke would ering t	d up individually for
Monitoring and verification of energy savings made	of the Monitor	ing ta	akes place via the l	NFOREG info	ormation system		
Overall evaluation and way forward (success of the measure, continuation or closure of th measure)	building the new A1 for th building this is te	This change will entail a tightening of the minimum energy performance requirements for buildings (from 2016 onwards), based on which an expert estimate is drawn up further to the new Implementing Decree No 364/2012. Attainment of the upper limit of energy class A1 for the global indicator determining the ultra-low-energy standard from 2016 – buildings undergoing major renovation must comply with this requirement insofar as this is technically, functionally and economically feasible.					
<ul> <li>Overlapping anticipated with another measure</li> <li>Duplicate counting of savin</li> <li>Interaction with other meast (support and horizontal)</li> </ul>	public b	uildii ment	rlapping with Meas ngs under the Ope ts in the thermal pe on)	rational Prog	ramme Environme	ntal Q	uality and

					h	. Car da a da a mara al mara		and the Charles	
Measure 1.3.4 3AP					Improvements in the thermal performance of buildings – Hotels, restaurants				
BUILDINGS sector									
Reporting period					Source of financing: <b>Own funds</b> 2014–2016				
Duration of the measure (fro	m – to)	\			2014-2016				
Duration of the measure (no	/III – to)	,			Ministry of T	ransport, Constru	ction	and Pagional	
Responsible ministry					Development		CLIOIT	and Regional	
Energy savings apply to:	Heat	1	latural gas		Electricity	Fuels		Other:	
%									
Planned	E	nergy savin	gs – FEC		Reduction in t primary energ	he consumption of y sources	Finar	ncing	
Year	Т	J	GWh		TJ	GWh	EUR	thousands	
2014		60		16.67					
2015		60	)	16.67					
2016		50		13.89					
2014–2016		170	D	47.23					
2017		4		12.50					
2018		4		12.50					
2019		4		12.50					
2020		4	5	12.50					
2017-2020		180		50.00					
Characteristics of measure	R	enovation	of wholesale	and re	tail huildings	with a minimum	20 % h	eat requirement	
(description of the measure	and e	aving	0	u	tan bananigo		_0 /0	out roquironioni	
method used to make saving	gs)								
Detailed description of the								rce: INFOREG IS).	
method to calculate energy								to be the upper limit	
savings (so that savings car	1 41	of energy class D. The energy saving is the difference between the energy supplied and the initial condition of the building. The average floor area of hotel and restaurant							
subsequently be recalculate		buildings is considered to be the current average floor area of notel and restaurant							
and verified)		ertificates.	considered to	b be ti	ne current average floor area under energy performance				
Assumptions and estimates	in								
the calculation of energy say		xpert estin	nates						
and dandardiner or onergy car		se of estin	ates is unavo	oidable	because the	initial condition	of the	administrative	
Reason for the use of estima	_							ed up individually for	
(e.g. if there are gaps in rele								culated separately	
information)						f energy performa			
,						our required mak			
Monitoring and verification of energy savings made	of the N	Ionitoring t	akes place vi	a the I	NFOREG info	rmation system			
	Т	his change	will entail a t	ighten	ing of the mir	nimum energy pe	rforma	nce requirements for	
Overall evaluation and way forward								s drawn up further to	
(success of the measure.								limit of energy class	
continuation or closure of the	A1 for the global indicator determining the ultra-low-energy								
measure)	b	buildings undergoing major renovation must comply with this requirement insofar as this is technically, functionally and economically feasible.							
,		nis is techn	ically, function	nally	and economic	cally feasible.			
- Overlapping anticipated wi	ith								
another measure		verlapping	with the Ope	ration	al Programme	e Rural Developm	ent, O	perational	
- Duplicate counting of savir - Interaction with other measures	iys b	rogramme	Competitiven	ess ar	nd Economic	Growth, 3.1 touris	sm	•	
(support and horizontal)	sures	-	-			· ·			
(support and nonzontal)									

Magaura 1 2 5 2 A D	Measure 1.3.5 3AP						Improvements in the thermal performance of buildings –				
					wholesale, re						
BUILDINGS sector						ancing: <b>Own fu</b>	nds				
Reporting period					2014–2016						
Duration of the measure (fro	m – to	)									
Responsible ministry					Ministry of 1 Developmer		struction	n and Regional			
Energy savings apply to:	Heat		Natural o	gas	Electricity	Fuels		Other:			
%											
Planned	ļ.	Energy savir energy cons	gs – FE umption)	C (final	Reduction in primary ener	the consumption gy sources	on of Fina	ancing			
Year		TJ	GWh		TJ	GWh	EU	R thousands			
2014		10	0	27.78							
2015		10	0	27.78							
2016		9	0	25.00							
2014–2016		29	0	80.56							
2017		8	5	23.61							
2018		7	5	20.84							
2019		7	5	20.84							
2020		7	5	20.84							
2017-2020		31	0	86.12							
Characteristics of measure		Damassatian	- £l l		4 - 11	!41	20.0/	boot vonvinences			
(description of the measure			ot wnoi	esale and re	tali bullding	s with a minim	um 20 %	heat requirement			
method used to make saving	gs) i	saving									
Detailed description of the method to calculate energy savings (so that savings car subsequently be recalculate and verified)	n ed	The initial condition of wholesale and retail buildings is considered to be the upper limit of energy class D. The energy saving is the difference between the energy supplied and the initial condition of the wholesale or retail building. The average floor area of wholesale and retail buildings is considered to be the current average floor area under energy performance certificates.									
Assumptions and estimates the calculation of energy say	in vinas	Expert estin	nates								
Reason for the use of estima (e.g. if there are gaps in releinformation)  Monitoring and verification of	ates	buildings w each and ev for each bui database fo	nich we ery buil Iding. C r the giv	are estimati ding and the onsidering t en year, the	ng would ot e saving in G he number o time and lal	herwise have to Wh would have of energy perfo bour required to	o be look e to be cormance make this	e administrative ked up individually for calculated separately certificates in the s infeasible.			
energy savings made						ormation syste					
Overall evaluation and way forward (success of the measure, continuation or closure of th measure)	ne (	This change will entail a tightening of the minimum energy performance requirements for buildings (from 2016 onwards), based on which an expert estimate is drawn up further to the new Implementing Decree No 364/2012. Attainment of the upper limit of energy class A1 for the global indicator determining the ultra-low-energy standard from 2016 – buildings undergoing major renovation must comply with this requirement insofar as this is technically, functionally and economically feasible.									
<ul> <li>Overlapping anticipated wi another measure</li> <li>Duplicate counting of savir</li> <li>Interaction with other meas (support and horizontal)</li> </ul>	ngs ·	•									

 $^{2}$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

10000			Improvements in the thermal performance of buildings –						
Measure 1.3.6. 3AP					sports halls and other buildings intended for support				
BUILDINGS sector					Source of finan	cing: Own funds		• •	
Reporting period					2014-2020				
Duration of the measure (from	m – to)				no limit				
Responsible ministry					Ministry of Tra Development	nsport, Construc	ction	and Regional	
Energy savings apply to:	Heat	Natural gas			Electricity Fuels			Other:	
%	35 %	65	i %						
Planned	E e	nergy saving nergy consur	s – FEC (final nption) <sup>3</sup>		Reduction in th primary energy	e consumption of sources	Finar	ncing	
Year			GWh		TJ	GWh	EUR	thousands	
2014		3		0.83					
2015		2		0.56					
2016		2		0.56					
2014–2016		7		1.94					
2017		2	1	0.56					
2018		1.5		0.42					
2019		1.5		0.42					
2020		1.5		0.42					
2017-2020		6.5		1.81					
Characteristics of measure									
(description of the measure a		Renovation of wholesale and retail buildings with a minimum 20 % heat requirement saving							
method used to make saving	gs) S	aving							
Detailed description of the	Т	he energy p	erformance ce	rtific	cate database s	serves as a basis	(sou	rce: INFOREG IS).	
method to calculate energy								the upper limit of	
savings (so that savings can		nergy class D. The energy saving is the difference between the energy supplied and the							
subsequently be recalculated	d İi	nitial condition	on of the build	ing.	g. The average floor area of buildings intended for sport is				
and verified)		onsidered to	be the curren	t av	erage floor are	a under energy p	erfor	mance certificates.	
Assumptions and estimates		xpert estima	atos						
the calculation of energy sav	/ings	•							
Reason for the use of estima (e.g. if there are gaps in relevinformation)	ates b vant e fo d	uildings whi ach and eve or each build	ch we are esti ry building and ling. Consider	mati d the ing t	ng would othe e saving in GW the number of		looke be ca nce co	ed up individually for lculated separately ertificates in the	
Monitoring and verification o energy savings made	IV	_	-			mation system			
Overall evaluation and way forward (success of the measure, continuation or closure of the measure)	b tl e b tl	This change will entail a tightening of the minimum energy performance requirements for buildings (from 2016 onwards), based on which an expert estimate is drawn up further to the new Implementing Decree No 364/2012. Attainment of the upper limit of energy class A1 for the global indicator determining the ultra-low-energy standard from 2016 – buildings undergoing major renovation must comply with this requirement insofar as this is technically, functionally and economically feasible.							
<ul> <li>Overlapping anticipated wit another measure</li> <li>Duplicate counting of savin</li> <li>Interaction with other meas (support and horizontal)</li> </ul>	ngs N	lo overlappiı	ng is anticipate	ed.					

 $<sup>^{3}</sup>$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

Measure 1.3.2. 3AP			Improvements in the thermal performance of buildings –				
			Schools, school				
BUILDINGS sector			Source of financing: 2014–2016				
Reporting period	(-)		2014-2016				
Duration of the measure (from	– to)						
Responsible ministry			Development		uction and Regional		
Energy savings apply to: He	eat Na	tural gas	Electricity	Fuels	Other:		
% x	x				_		
Planned	Energy savings energy consum	- FEC (final ption)⁴	Reduction in the primary energy	ne consumption of y sources	f Financing		
Year	TJ G	Wh	TJ	GWh	EUR thousands		
2014	40	25			639,969		
2015	40	25			639,969		
2016	30	22.22			640,000		
2014–2016	110	72.22			1,919,939		
2017	30	22.22			640,000		
2018	30	22.22			640,000		
2019	30	22.22			640,000		
2020	30	22.22			640,000		
2017-2020	120	88.88			2,560,000		
Characteristics of measure	- 1		I.		,,		
(description of the measure an	nd Renovation of	buildings with a	minimum 20 %	6 heat requireme	nt saving.		
method used to make savings		<b>J</b>			3		
Detailed description of the	T1				is (seems a INFOREO IO)		
method to calculate energy					s (source: INFOREG IS).		
savings (so that savings can					per limit of energy class D.		
subsequently be recalculated	of the building		ence between the energy supplied and the initial condition				
and verified)	or the building	•					
Assumptions and estimates in	Evport actimat	100					
the calculation of energy savir	ngs Expert estimat	.62					
Reason for the use of estimate (e.g. if there are gaps in releva information)	buildings which nt each and ever for each building database for the	ch we are estimati y building and the	ng would othe e saving in GW the number of	erwise have to be Vh would have to energy performa	of the administrative e looked up individually for b be calculated separately ance certificates in the te this infeasible.		
Monitoring and verification of energy savings made	the Monitoring tak	es place via the l	NFOREG infor	rmation system			
Overall evaluation and way forward (success of the measure, continuation or closure of the measure)	buildings (fror the new Imple A1 for the glok buildings und	This change will entail a tightening of the minimum energy performance requirements for buildings (from 2016 onwards), based on which an expert estimate is drawn up further to the new Implementing Decree No 364/2012. Attainment of the upper limit of energy class A1 for the global indicator determining the ultra-low-energy standard from 2016 – buildings undergoing major renovation must comply with this requirement insofar as this is technically, functionally and economically feasible.					
<ul> <li>Overlapping anticipated with another measure</li> <li>Duplicate counting of saving</li> <li>Interaction with other measu (support and horizontal)</li> </ul>	Overlapping w s public building res Development a	Measure evaluated by reference to all buildings in this category.  Overlapping with Measures 3.2.1 and 3.2.2 Improvements in the thermal performance of public buildings – Schools and school facilities (Operational Programme Research and Development and ROP).  Duplicate counting of savings: prevented.					

 $<sup>^{4}</sup>$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

Measure 1.3.3. 3AP			Improvements in the thermal performance of buildings – Hospitals						
BUILDINGS sector					ncing: own funds				
Reporting period					ith an outlook up				
Duration of the measure (fro	m – to								
Responsible ministry	7111 — LC	, <u>,                                     </u>		Ministry of Transport, Construction and Regional Development					
Energy savings apply to:	Heat			Electricity	Fuels	Other:			
%	x	х							
Planned		Energy savings – FEC (final energy consumption) <sup>5</sup>		Reduction in the consumption of primary energy sources		Financing			
Year		TJ	GWh	TJ	GWh	EUR thousands			
2014		35	9.72						
2015		30	8.33						
2016		30	26.39						
2014–2016		95	32.5						
2017		25	6.95						
2018		25	6.95						
2019		25	6.95						
2020		25	6.95						
2017-2020		100	27.78						
Characteristics of measure		· ·							
(description of the measure	and	Renovation of hospitals with a minimum 20 % heat requirement saving.							
method used to make saving	gs)		•		•	J			
Detailed description of the		The enemals ::				a (accuracy INFOREO IS)			
method to calculate energy		The energy performance certificate database serves as a basis (source: INFOREG IS).  The initial condition of the hospital is considered to be the upper limit of energy class D.							
savings (so that savings car									
subsequently be recalculate		The energy saving is the difference between the energy supplied and the initial condition of the hospital.							
and verified)		or the hospita	ll.						
Assumptions and estimates		Expert estima	ntoc						
the calculation of energy say	vings	Expert estima	iles						
Reason for the use of estimates (e.g. if there are gaps in releinformation)	ates vant	buildings whi each and eve for each build	ch we are estimat ry building and the	ing would othe e saving in GV the number of	erwise have to be Wh would have to f energy performa	of the administrative e looked up individually for b be calculated separately ance certificates in the te this infeasible.			
Monitoring and verification of energy savings made			kes place via the l						
Overall evaluation and way forward (success of the measure, continuation or closure of the measure)	ne (	This change will entail a tightening of the minimum energy performance requirements for buildings (from 2016 onwards), based on which an expert estimate is drawn up further to the new Implementing Decree No 364/2012. Attainment of the upper limit of energy class A1 for the global indicator determining the ultra-low-energy standard from 2016 – buildings undergoing major renovation must comply with this requirement insofar as this is technically, functionally and economically feasible.							
<ul> <li>Overlapping anticipated wi another measure</li> <li>Duplicate counting of savir</li> <li>Interaction with other measure</li> <li>(support and horizontal)</li> </ul>	ngs	Overlapping v buildings – H		mprovements , 2007–2013 S	in the thermal pe Structural Funds,	ry. erformance of public Operational Programme			

 $<sup>^{5}</sup>$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

Measure 1.4.1. 3AP		New construction to a low-energy standard – single-family								
BUILDINGS sector					buildings	finanair	ng: <b>own funds</b> , o		noroial banks	
Reporting period										
Duration of the measure (fro	m _ to				2014–2016, with an outlook up to 2020					
Responsible ministry	7111 — LO	,			Ministry of Transport, Construction and Regional Development					
Energy savings apply to:	Heat	Natural gas			Electricity				Other:	
%										
Planned		Energy savir	ngs – F	EC	Reduction primary en		consumption of ources	Finar	ncing	
Year	-	ΓJ	GWh		TJ	G	Wh	EUR	thousands	
2014		6	0	16.67						
2015		6	0	16.67						
2016		5	5	15.28						
2014–2016		17	5	48.62						
2017										
2018										
2019										
2020										
2017-2020										
Characteristics of measure					I					
(description of the measure	and	Attainment	of a lov	w-energy star	ndard, i.e. 1	he upp	er limit of ener	av cl	ass B	
method used to make saving	qs)	Attainment of a low-energy standard, i.e. the upper limit of energy class B								
Detailed description of the method to calculate energy savings (so that savings car subsequently be recalculate and verified)	n ed f	The energy performance certificate database serves as a basis (source: INFOREG IS). The anticipated condition of a single-family building is considered to be the upper limit of energy class B – new construction. The energy saving is the difference between the energy supplied and the upper limit of energy class B. The average floor area of a single-family building is considered to be the current average floor area under energy performance certificates.								
Assumptions and estimates the calculation of energy say	vings	Expert estir								
Reason for the use of estima (e.g. if there are gaps in rele information)	ates l	ouildings we each and ev separately f	hich w ery bu or eac	e are estimati ilding catego h building. Co	ng would ry and the onsidering	otherw saving the nu	in GWh would mber of energy	looke   have / perf	administrative d up individually for to be calculated ormance certificates e this infeasible.	
Monitoring and verification of energy savings made	of the	Monitoring	takes p	place via the I	NFOREG i	nforma	ition system			
Overall evaluation and way forward (success of the measure, continuation or closure of the measure)	ne f	This change will entail a tightening of the minimum energy performance requirements buildings (from 2016 onwards), based on which an expert estimate is drawn up further the new Implementing Decree No 364/2012 (note: the ongoing Measure 1.5 2016).						s drawn up further to		
<ul> <li>Overlapping anticipated wi another measure</li> <li>Duplicate counting of savir</li> <li>Interaction with other meas (support and horizontal)</li> </ul>	ngs									

Measure 1.2.4 3AP				New construction to a low-energy standard – multi-family					
					buildings			•	
BUILDINGS sector					Source of finar			-	
Reporting period		_			2014–2016, with an outlook up to 2020				
Duration of the measure (fro	om – to	o)							
Responsible ministry					Development	ansport, Construc	tion a	and Regional	
Energy savings apply to:	Heat		Natural gas	3	Electricity	Fuels		Other:	
%									
Planned	I	Energy savir	igs – FEC		Reduction in the primary energy	ne consumption of sources	Finar	ncing	
Year		TJ	GWh		TJ	GWh	EUR	thousands	
2014		0.	-	0.14					
2015		0.	_	0.14					
2016		0.		0.14					
2014–2016		1.	5	0.42					
2017									
2018									
2019									
2020									
2017-2020									
Characteristics of measure			•		•	•			
(description of the measure	and	Attainment	of a low-en	ergy stan	ndard, i.e. the i	upper limit of ene	rgy cla	ass B	
method used to make saving	gs)								
Detailed description of the								rce: INFOREG IS).	
method to calculate energy		The anticipated condition of a multi-family building is considered to be the upper limit of							
savings (so that savings car		energy class B – new construction. The energy saving is the difference between the							
subsequently be recalculate							rage r	number of housing	
and verified)		units per mi	ulti-family k	building is	s assumed to	be 50.			
Assumptions and estimates the calculation of energy sa		Expert estin	nates						
						initial condition o			
Reason for the use of estima								d up individually for	
(e.g. if there are gaps in rele						ing in GWh would			
information)								ormance certificates	
		in the datab	ase for the	given ye	ar, the time an	nd labour required	make	e this infeasible.	
Monitoring and verification energy savings made	of the	Monitoring 1	akes place	via the I	NFOREG infor	mation system			
Overall evaluation and way									
forward								nce requirements for	
(success of the measure,								s drawn up further to	
continuation or closure of the	ne i	the new Imp	lementing	Decree N	lo 364/2012 (ne	ote: the ongoing I	Measu	ıre 1.5 2016).	
measure)									
- Overlapping anticipated wi	ith								
another measure									
- Duplicate counting of savi	_								
- Interaction with other mea	sures								
(support and horizontal)									

Measure 1.5 3AP				New construction of single-family and multi-family buildings to						
					energy standard					
BUILDINGS sector					<u> </u>	ls, commercial banks				
Reporting period					with an outlook	up to 2020				
Duration of the measure (fro	om – to	o)		From 2016 to 2020 Ministry of Transport, Construction and Regional						
Responsible ministry				Ministry of Developme		ruction and Regional				
Energy savings apply to:	Heat		Natural gas	Electricity	Fuels	Other:				
%										
Planned		Energy savir energy cons		Reduction in primary ener		of Financing				
'ear		TJ	GWh	TJ	GWh	EUR thousands				
014			5 1.3	9						
2015			5 1.3	9						
2016			5 1.3	9						
2014–2016		1:	5 4.1	7						
2017		3	0 8.3	3						
2018		3	0 8.3	3						
2019		3	5 9.7	′2						
2020		3	5 9.7	′2						
2017-2020		13	0 36.1	1						
Characteristics of measure		A44 = ! 4	- <b>(</b>   1		-6	i - the common limit of common				
(description of the measure		Attainment (	of an uitra-iow-ene	ergy standard	or construction,	i.e. the upper limit of energy				
method used to make savin	gs)		The energy performance certificate database serves as a basis (source: INFOREG IS).							
Detailed description of the method to calculate energy savings (so that savings cal subsequently be recalculate and verified)	n ed	the upper lii difference b average nur average floo	mit of energy class etween the energy nber of housing u	A1 – new co supplied and nits per multi- family buildin	nstruction. The e of the upper limit of family building is g is considered t	ouilding is considered to be energy saving is the of energy class A1. The sassumed to be 50. The co be the current average				
Assumptions and estimates the calculation of energy sa	vings	Expert estin								
Reason for the use of estim (e.g. if there are gaps in rele information)	ates evant	buildings w each and ev separately f	hich we are estima ery building categ or each building. (	iting would ot ory and the s considering th	herwise have to aving in GWh wo ne number of ene	n of the administrative be looked up individually for ould have to be calculated ergy performance certificates red make this infeasible.				
Monitoring and verification energy savings made	of the	Monitoring t	takes place via the	INFOREG inf	ormation system	ı				
Overall evaluation and way forward (success of the measure, continuation or closure of the measure)  - Overlapping anticipated w		-								
another measure  - Duplicate counting of savir  - Interaction with other mea (support and horizontal)	ngs	Overlapping	with Measures 1.	4.1, 1.4.2 and	1.6.					

 $<sup>^{6}</sup>$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

					Now sonet	ruotion.	of noorly zoro	00000	coingle femily and
Measure 1.7 3AP					multi-famil	ruction v buildi	or nearly zero-	energy	single-family and
BUILDINGS sector							ng: <b>own funds</b> ,	comn	nercial hanks
Reporting period					2014_2016	8 with	an outlook up	to 203	20
Duration of the measure (fro	.m _ to	<u>,,</u>			2017 2010	J, WILII	an outlook up	10 202	
Responsible ministry	<i>7</i> 111 — tt				Ministry of Transport, Construction and Regional Development				
Energy savings apply to:	Heat			Electricity Fuels			Other:		
%					•				
Planned		Energy savir energy cons		(final	Reduction in the consumption of primary energy sources				
Year		TJ	GWh		IJ	G	Wh	EUR	thousands
2014			0	0					
2015			0	0					
2016			0	0					
2014–2016			0	0					
2017			0	0					
2018		0.	1	0.03					
2019		0.	2	0.06					
2020		0.	2	0.06					
2017-2020		0.		0.14					
Characteristics of measure							_		
(description of the measure								gy bui	ldings, i.e. the upper
method used to make saving		limit of ener	gy class <i>i</i>	40, with th	e conditio	n of RE	:S.		
Detailed description of the method to calculate energy savings (so that savings car subsequently be recalculate and verified)	n ed	the upper li difference b single-famil family build	mit of ene etween th y or multi- ing is ass	rgy class / e energy s -family bui umed to b	A1 – new of supplied and Iding. The algorithm and Iding. The algorithm and Iding.	construend the average	iction. The end upper limit of ge number of l e floor area of	ergy sa energy housin a sing	is considered to be aving is the y class A1 for a ng units per multi- ple-family building is mance certificates.
Assumptions and estimates the calculation of energy sa	vings	Expert estin							
Reason for the use of estime (e.g. if there are gaps in rele information)	ates vant	buildings w each and ev separately f	hich we ar very buildi or each bu	re estimati ng catego uilding. Co	ng would ry and the ensidering	otherw saving the nu	ise have to be in GWh woul mber of energ	looke d have ly perf	administrative ad up individually for to be calculated ormance certificates this infeasible.
Monitoring and verification energy savings made	of the	Monitoring	takes plac	e via the II	NFOREG i	nforma	tion system		
Overall evaluation and way forward (success of the measure, continuation or closure of the measure)	-								
<ul> <li>Overlapping anticipated winder measure</li> <li>Duplicate counting of saving interaction with other mean (support and horizontal)</li> </ul>	ngs	Overlappinç	g with Mea	sures 1.4.	1, 1.4.2 an	d 1.5.			

 $^{7}$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

## **Industry sector**

			Measure 1.1, C	Operational Progra	mme Competitiveness and			
Mossuros 5 1 1 5 2 1 3 A D			Economic Grov	wth 2007-2013	•			
Measures 5.1.1, 5.2.1 3AP			Innovation an	d technology tran	sfers at industrial			
			enterprises					
Industry sector			Measure 2.1, Operational Programme Competitiveness and Economic Growth 2007–2013					
,			Increased energy efficiency in industrial production					
Reporting period				th an outlook up				
Duration of the measure (fro	om – to)		As of 2007					
Responsible ministry			Ministry of Ec Agency	onomy, Slovak In	novation and Energy			
Energy savings apply to:	Heat	Natural gas	Electricity	Fuels	Other:			
% (forecast)	50 %	50 %	Í					
Planned	Energy savings – consumption)8	FEC (final energy	Reduction in the primary energy	e consumption of	Financing			
Year	TJ	GWh	TJ	GWh	EUR thousands			
2014	10	01111	294.12	0.08	0.00			
2015			0.00	0.00	0.00			
2016			0.00	0.00	0.00			
2016 2014–2016			294.12	0.00	0.00			
2014–2016 <b>2017</b>			0.00	0.00	0.00			
2018			0.00	0.00	0.00			
2018				0.00	0.00			
2019			0.00	0.00	0.00			
2017-2020			0.00	0.00	0.00			
Characteristics of measure			0.00	0.00	0.00			
(description of the measure	e Measure nearing completion, for a description of the measure see the EVALUATION of							
	year) will be ach Projects focusin and 1.1.  V With combine the form of a me RES is removed investment cost Operational Prodepending on the Where uncerts of RES, these produced where irregulate basis of actusing the basis of accusing and the basis of accusing the basis of accusing and the produced the p	d projects (energy e assurable impact ind . This is calculated a s (Ni) per unit of ins gramme Competitive te type of RES. ainties exist in energy ojects are also excludities are identified and operating data from	excluded from fficiency and R licator is counted as the product of talled capacity leness and Econgy-saving figure uded.	the list of all projects), the entire ened. Of the investment of the installed capased on previous omic Growth and as or in information the savings are e	(energy savings in GJ per jects under Measures 2.1 ergy-saving declared in nent costs, the part for pacity and the projected is projects under the d Slovseff I and II, on on the installed capacity examined and revised on			
Assumptions and estimates in the calculation of energy savings	Estimates used: Investment costs to achieve the installed capacity:  Solar power at EUR 1 110 per kW (Slovseff I, II)  Solar power at EUR 1 110 per kW (Slovseff I, II)							
Reason for the use of estimates								
Monitoring and verification of the energy savings made	Verification by the Agency for 3AP	requirements.	Ministry of Eco	onomy/Slovak Inn	ovation and Energy			
forward (success of the measure, continuation or	measure in which tis to be followed	th final savings from ed up by a measure	measures imp under the Oper	lemented in 2013 ational Programn	it is only an ongoing are being made. ne Environmental Quality rom energy audits".			

 $<sup>^{\</sup>rm 8}$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

Measure 5.1.2 3AP			Innovation and technology transfers at industrial enterprises					
Industry sector			Measure 2.1, C 2007–2013 Str		ime Bratislava Region,			
Reporting period			2014–2016, with an outlook up to 2020					
Duration of the measure (fro	om – to)		2007–2013, n+					
Responsible ministry			Ministry of Agriculture and Rural Development					
Energy savings apply to:	Heat	Natural gas	Electricity	Fuels	Other:			
% (forecast)		J						
Planned	Energy savings – consumption)9	FEC (final energy	Reduction in the	e consumption of sources	Financing			
Year	TJ	GWh	TJ	GWh	EUR thousands			
2014	1.32	0.66			0			
2015	0.11	0.03			600			
2016	0.00	0.00			0			
2014–2016	1.43	0.69			600			
2017	0.00	0.00	1		0			
2018	0.00	0.00	1	1	0			
2019	0.00	0.00			0			
2020	0.00	0.00			0			
2017-2020	0.00	0.00			0			
Characteristics of measure	0.00	0.00						
(description of the measure	Measure nearing	completion for a	description of th	a mazeura saa tha	Evaluation of Measure			
and method used to make	5.1.2 2AP.	g completion, for a	description or th	ie ilicasure see tile	Evaluation of Measure			
savings)	J. 1.2 ZAF.							
Detailed description of the method to calculate energy savings (so that savings can subsequently be recalculated and verified)	projects are defi consumption af Energy savings referred to in the value; for project	ined as energy cons ter project impleme are calculated on tl	sumption prior to ntation. ne basis of actua ation (for comple	o project implement ally achieved meas eted projects, this	surable indicators is the annually reported			
Assumptions and estimates in the calculation of energy savings								
Reason for the use of estimates (e.g. if there are gaps in relevant information)	-							
Monitoring and verification		rried out by the Mir	nistry of Agricult	ure and Rural Dev	elopment via the ITMS			
of the energy savings made	system.							
Overall evaluation and way forward (success of the measure, continuation or closure of the measure)	The measure wi				projects are being cts cannot currently be			
Overlapping anticipated with another measure     Duplicate counting of savings     Interaction with other measures (support and horizontal)	None anticipate	d.						

-

 $<sup>^{9}</sup>$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

Measure 5.2.2. 3AP				Increased en	ergy efficiency in	n industrial	production		
INDUSTRY sector					ancing: Slovseff				
Reporting period					vith an outlook				
Duration of the measure (from	om – to)			As of 2010	THE COLOUR	ир то 202			
Responsible ministry	,,				conomy, ESG				
Energy savings apply to:	Heat	N	atural gas	Electricity	Fuels		Other:		
% (forecast)	· ··out		8.5 %	1.5 %	1 40.0		0.11011111111111		
,	Fne	_	gs – FEC (final		the consumption	consumption of Ginancing			
Planned	ene	rgy consu	mption) <sup>10</sup>	primary energ		Finan	ncing		
Year	TJ	0,	GWh	TJ	GWh	EUR	EUR thousands		
2014		85.39	23.72				1,380		
2015		14.32	3.98				0		
2016		0.00	0.00				0		
2014–2016		99.71	27.70				1,380		
2017		0.00	0.00				0		
2018		0.00	0.00	i			0		
2019		0.00	0.00				0		
2020		0.00	0.00				0		
2017-2020		0.00	0.00				0		
Characteristics of measure	Mea	sure nea	ring completion, fo	r a description	on of the measu	ire see th	EVALUATION of		
(description of the measure			2 2AP. The energy						
method used to make savin		lementat		•		•	` '		
Detailed description of the									
method to calculate energy	Bot	tom-up: p	lanned energy sav	ings are calc	ulated on a pro	ject-by-pi	oject basis. It is		
savings (so that savings ca	n ass	assumed that energy savings indicated as the planned savings, as stipulated by the							
subsequently be recalculate	ed pro	ject admi	nistrator (ESG), wi	I be achieved	ı.	_			
and verified)									
Assumptions and estimates			d that the entire he			ıl gas. It is	assumed that all		
the calculation of energy sa		jects are	to be completed by	the end of 2	014.				
Reason for the use of estim									
(e.g. if there are gaps in rele	evant -								
information)									
Monitoring and verification			carried out by the						
energy savings made	emp		f the Ministry of Ed	onomy/Slova	ak Innovation a	nd Energy	Agency for 3AP		
	req	uirements	S.						
Overall evaluation and way	The	measure	will not be continu	ed in the 201	14-2020 period	hecause	it is only an ongoing		
forward							2014 and 2015 are		
(success of the measure,	ha:	ng made.	gc			<u>-</u> ,			
continuation or closure of t			llowed up by a mea	sure under S	Slovseff III (Mea	sure 5.2.3	3AP)		
measure)					(		,		
- Overlapping anticipated w	ith								
another measure									
- Duplicate counting of savi - Interaction with other mea		ne anticip	ated.						
I Intercetion with other med									
(support and horizontal)	Suies								

 $<sup>^{10}</sup>$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

Measure 5.2.3. 3AP			Increased energy efficiency in industrial production						
INDUSTRY sector			Source of financing: Slovseff III – industry						
Reporting period				h an outlook up t					
Duration of the measure (from – t	0)		From 2014 to 2		0 202	<u> </u>			
Responsible ministry	~,		Ministry of the						
Energy savings apply to: Heat	N:		Electricity	Fuels		Other:			
% (forecast) x	x		X						
Planned	Energy saving energy consur	s – FEC (final	Reduction in the consumption of primary energy sources			Financing			
Year			, , ,,	GWh	FUR 1	thousands			
2014	0.00	0.00	10	<u> </u>		inousunus	5,331		
2015	45.91	12.75					5,331		
2016	45.91	12.75					5,331		
2014–2016	91.82	25.50					15,992		
2017	45.91	12.75					0		
2018	0.00	0.00					0		
2019	0.00	0.00					0		
2020	0.00	0.00					0		
2017-2020	45.91	12.75					0		
		follows on from S	lovseff II (2010-	-2014) and Slove	seff I (	2007–2010). h			
Characteristics of measure (description of the measure and method used to make savings)	incentive payments are covered with sales of greenhouse gas emission allowances be the Spanish government under a green investment scheme (Greening Programme). Under Slovseff III, the share of financing channelled into energy efficiency measures the housing sector was contracted in favour of energy efficiency measures in industrand, in particular, RES:  - energy efficiency in residential buildings: up to 20 %  - energy efficiency in industry: approximately 35 %  - RES: approximately 45 %  Financing takes place in much the same measure as under Slovseff I and II, i.e. applicants are granted loans and provided with incentive payments upon compliance with the set conditions. The EBRD provided EUR 40 million for the financing of loans. The Spanish government provided EUR 5 693 800 for incentive payments and anothe EUR 2 million for technical assistance (consulting, energy auditing arrangements, etc. These funds are available for utilisation up to 31 July 2016.						nce ans.		
Detailed description of the method to calculate energy savings (so that savings can subsequently be recalculated and verified)	efficiency me in industry or	gy savings are cal easures in industry n the basis of previ ne basis of energy	and the averag	e investment int lovseff II) and er	ensity	of energy ef	ficiency		
Assumptions and estimates in the calculation of energy savings	industry efficienc meaning The savi Assump	rvings: the average is considered to be y measures based of Act No 476/200 ings are indicated at tion: financing and sare indicated in t	e EUR 418 per l on energy audi 9). a year after the I implementatio	MWh (Slovseff II iting in 2013 – er planned project n in 2014, energ	and p nergy a implei y savii	lanned energ auditing with mentation. ngs in 2015 a	ly in the		
information)	Specific proje	ects have yet to be	contracted.						
Monitoring and verification of the									
energy savings made									
Overall evaluation and way forward (success of the measure, continuation or closure of the measure)	Start of measure: 2014 End of measure: (+ until when projects can be implemented)								
<ul> <li>Overlapping anticipated with another measure</li> <li>Duplicate counting of savings</li> <li>Interaction with other measures (support and horizontal)</li> </ul>	None anticipa	ated.							

 $<sup>^{11}</sup>$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

			Implementation of one	erav efficiency meacur	es derived from			
Measure 5.3. 3AP			Implementation of energy efficiency measures derived from energy audits					
INDUSTRY sector			Source of financing: OP Environmental Quality 2014–2020, Priority Axis 2. Promotion of energy efficiency and use of energy from renewable sources at undertakings (b)					
Reporting period			2014–2016, with an o		<b>3</b>			
Duration of the measure (fro	m – to)		2014-2020, n+2 Ministry of the Environment (MA), Ministry of Economy					
Responsible ministry			(intermediate body)	onnent (WA), Willist	y or Economy			
3, 3, 3, 1, 7, 1	Heat	Natural gas	Electricity	Fuels	Other:			
% (forecast)	Energy savings – Fl	 FC (final energy	Reduction in the cons	Lumption of primary				
Planned	consumption) 12	Lo (mar onorgy	energy sources	ampaion of primary	Financing			
Year	TJ	GWh	TJ	GWh	EUR thousands			
2014			0.00		0			
2015			0.00					
<b>2016</b> 2014–2016			<b>252.00</b> 252.00		,			
2014–2016 <b>2017</b>			252.00 252.00		- 1			
2018			378.00					
2019			378.00					
2020			0.00	0.00	· · · · · · · · · · · · · · · · · · ·			
2017-2020			1,008.00	280.00	195,827			
Characteristics of measure (description of the measure and method used to make savings)  Detailed description of the method to calculate energy savings (so that savings can subsequently be	enterprises) Activities derived the reconst order to reduce t the reconst efficiency or to re the reconst systems; the introducenvironmental m consumption in c the construenergy-medium of complexes; other meas For the purposes energy facilities of energy-saving in	d from energy au ruction and mod he energy intens ruction and mod educe greenhous ruction and mod ction of measure anagement systemater to reduce election, moderniss distribution systemates helping to resoft the measure to increase energiciator was set of the measure to	dits and focusing on ernisation of structurity thereof; ernisation of existing se gas emissions; ernisation of comprement and managements, especially EMAS nergy consumption attion and reconstructures, including systemeduce the consumption entailing the reconstructure on the basis of an expension of structures.	the following will be res in industry and re genergy facilities to it essed air production and systems, including in the field of energy distribution of energy distribution of primary energy ruction and modernistice greenhouse gas bert estimate factoring Programme Compe	eligible: elated services in ncrease energy and distribution g energy and gy production and emissions; ution systems or ghting of industrial y sources. sation of existing emissions, the g in experience from			
recalculated and verified) Assumptions and estimates in the calculation of energy savings Reason for the use of	information with Energy savings a the Operational F Experience of im	the business con are broken down Programme Envir plementation fro	mmunity and mandat into individual years onmental Quality in 3 m the 2007–2013 per	luding experience fro ory energy auditing i to reflect the gradua Slovakia following th iod (the Operational rated into this breakd	n Slovakia. I implementation of e approval thereof. Programme			
estimates (e.g. if there are gaps in relevant information)	Planning of a nev							
Monitoring and verification of the energy savings made	Monitoring and v Innovation and E		energy savings mad	le will be the respons	ibility of the Slovak			
Overall evaluation and way forward (success of the measure, continuation or closure of the measure)				l Quality is undergoii nergy savings and fir				
Overlapping anticipated with another measure     Duplicate counting of savings     Interaction with other measures (support and horizontal)	None anticipated	l.						

 $^{\rm 12}$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

Measure 5.4. 3AP			Application of legislative measures						
INDUSTRY sector			Energy audits 476/2008 (as		akings pursuant to Act No				
Reporting period			2014–2016, w	ith an outlook up	to 2020				
Duration of the measure (fro	m – to)								
Responsible ministry	,		Ministry of E	conomy					
	Heat	Natural gas	Electricity	Fuels	Other:				
% (forecast)			Í						
Planned	Energy s energy c	avings – FEC (final onsumption) <sup>513</sup>	Reduction in t	he consumption of y sources	Financing				
Year	TJ	GWh	TJ	GWh	EUR thousands				
2014									
2015									
2016									
2014–2016									
2017									
2018									
2019									
2020									
2017-2020									
Characteristics of measure			· ·		•				
(description of the measure	and								
method used to make saving									
Detailed description of the	,-,								
method to calculate energy									
savings (so that savings can	The savii	The savings are indicated a year after the planned project implementation.							
subsequently be recalculate									
and verified)									
Assumptions and estimates	in								
the calculation of energy sav									
Reason for the use of estima	ites								
(e.g. if there are gaps in relev	vant								
information)									
Monitoring and verification					d by the Slovak Innovation				
Monitoring and verification of energy savings made	and Ene	rgy Agency). Verific	ation by the emp	loyees of the Slov	ak Innovation and Energy				
energy savings made	Agency	on the basis of ene	rgy audit reports.						
Overall evaluation and way		·							
forward									
(success of the measure,									
continuation or closure of th	е								
measure)									
- Overlapping anticipated with					nder Slovseff II, III, the				
another measure	Operation				th 2007–2013, and the				
- Duplicate counting of savin		nal Programme En		ity 2014–2020.					
- Interaction with other meas	Duplicat	e counting: prevent							
(support and horizontal)	interacti		res – monitoring :	system, consultin	g, energy service support				
( )	(in indus	stry).							

 $<sup>^{\</sup>rm 13}$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

### Public sector – all measures

Measure 3.1. 3AP			Improvements Healthcare fa	s in the thermal perf	orman	ce of buildings –	
Public sector			Source of financing: 2007–2013 Structural Funds, OP Health				
Reporting period				ith an outlook up	to 202	0	
Duration of the measure (from – to)			,			-	
Responsible ministry			Ministry of H	ealth			
Energy savings apply to:	Heat	Natural gas	Electricity	Fuels		Other:	
% (forecast)							
Planned	Energy savi energy cons	ings – FEC (final sumption) <sup>14</sup>	Reduction in t primary energ	he consumption of y sources	Finan	cing	
Year	TJ	GWh	TJ	GWh	EUR t	housands	
2014	15.52	4.31				1,707	
2015	1.17	0.32				16,240	
2016	7.91	2.20				C	
2014–2016	24.60	6.83				17,947	
2017							
2018							
2019							
2020							
2017-2020				riod that is being v			
Detailed description of the method to calculate energy savings (so that savings can subsequently be recalculated and verified)	- Ine sa	avings are indicate	d in the year fo	ollowing the year of for ICT and similar	renova techn	tion. ical equipment are	
Assumptions and estimates in the calculation of energy savings							
Reason for the use of estimates (e.g. if there are gaps in relevant information)							
Monitoring and verification of the energy savings made	"Energy-sa	iving (GJ per yea n for 3AP require	r)" stated in t			neasurable indicator	
Overall evaluation and way forward (success of the measure, continuation or closure of the measure)							
<ul> <li>Overlapping anticipated with another measure</li> <li>Duplicate counting of savings</li> <li>Interaction with other measures (support and horizontal)</li> </ul>	None antic	ipated.					

 $<sup>^{14}</sup>$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

			h	. (b (b l f		
			Schools and sch	n the thermal perfo	orman	ice of buildings –
			Source of financing: 2007–2013 Structural Funds, OP			
Public sector			Research and	Development		
Reporting period				h an outlook up t	to 202	20
Duration of the measure (from - to)			2007–2013, n+2			
Responsible ministry	1			cation, Science,	Rese	
Energy savings apply to:	Heat	Natural gas	Electricity	Fuels		Other:
% (forecast)	Enorgy goving	ro FEC (final	Doduction in the	o concumption of		
Planned	energy consu		primary energy	sources	Finan	
Year	TJ	GWh	_	GWh	EUR	thousands
2014 2015	1.77 0.00	0.49 0.00				0 1,979
2015	0.002					1,979
2014–2016	1.77	0.49				
2014 2010				buildings – this	is a "	subset" of Measure
Characteristics of measure (description of the measure and method used to make savings)	5.1, focusing on the infrastructure of higher-education institutions within the scope of the Operational Programme Research and Development, the aim of which is to enhance the quality of education at higher-education institutions by investment in tangible infrastructure. Eligible applicants are public and state higher-education institutions and the Slovak Academy of Sciences. Besides investment activity focusin on the reconstruction of higher-education institutions, eligible activities also include the construction of new buildings, the extension of structures, the modernisation and reconstruction of the accommodation capacities, gymnasiums, canteens and sports facilities of higher-education institutions, and the modernisation of the indoor equipment and facilities of higher-education institutions used in the education process. Improvements in the thermal performance of buildings will take place until then of 2015. Information on energy savings will be submitted to the Agency for the Structural Funds of the EU up to 2020 (i.e. for five years after completion of the final projects). Overall, EUR 315 million has been allocated for the infrastructure of higher-education institutions. Part of this is/will be used to improve the thermal				y investment in her-education lent activity focusing vities also include modernisation and inteens and sports if the indoor ee education lill take place until the e Agency for the oletion of the final structure of	
to calculate energy savings (so that savings can subsequently be recalculated and verified)  Assumptions and estimates in the	performance of buildings.  Bottom-up. Energy savings are calculated for each project.  Energy savings are calculated on the basis of measurable indicators referred to in the design documentation (for completed projects, this is the annually reported value; for projects in progress, this is the planned value of the measurable indicator).  Calculations of energy savings draw on expert estimates of savings achieved compared to the initial condition.  In the calculation of savings in 2012 and 2013, so far three beneficiaries have reported energy savings. One beneficiary, the Alexander Dubček University of Trenčín, compared its consumption of natural gas in 2009 (prior to the start of the project) and					
calculation of energy savings  Reason for the use of estimates (e.g. if there are gaps in relevant	difference wa 30.92 m3). Ai	as divided by the nother two benef Trnava, proceed	natural gas con iciaries, Comen	nbustion efficier ius University in	ncy co	
information)						
Monitoring and verification of the energy savings made	Monitoring is carried out by the managing authority (the Ministry of Education, Scien Research and Sport) and the intermediate body (the Agency for the Structural Funds the EU) via the ITMS, where a measurable indicator is provided.  As the "Energy savings" indicator is an impact indicator, information is monitored by way of ex-post monitoring reports, which beneficiaries are required to submit once a year for the five years following the end of the project. If energy savings are reported beneficiaries also send the method they used to calculate the energy savings in the period in question.				on is monitored by d to submit once a vings are reported, gy savings in the	
Overall evaluation and way forward (success of the measure, continuation or closure of the measure)	We do not currently have sufficient quantities of data to draw conclusions. In view of the fact that information on energy savings under the projects is insufficient at this dtime, only data for the first three projects are currently available. Each project prese only the energy savings made in the first year after the completion of the project. Two of the three entities achieved the energy savings planned in the first year. As information on energy savings will be sent for five years and most projects have yet been financially or physically wound up, a longer period is required to monitor the same contents.				sufficient at this ach project presents of the project. ne first year. ost projects have not	
Overlapping anticipated with another measure     Duplicate counting of savings     Interaction with other measures (support and horizontal)	No overlappi	No overlapping of this measure with other measures is anticipated.				

 $<sup>^{15}</sup>$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

MIDASTIFO 3 7 7 3AP			Improvements in the thermal performance of buildings – Schools and school facilities			
Public sector			Schools and school facilities  Source of financing: 2007–2013 Structural Funds, ROP,  Measure 1.1 Education infrastructure			
			2014–2016, with an outlook up to 2020			
Duration of the measure (from – to)			2007–2013, n+			
Responsible ministry				Ministry of Agriculture and Rural Development		
Energy savings apply to:	Heat	Natural gas	Electricity	Fuels	Other:	
% (forecast)						
Planned	Energy savino	gs – FEC	Reduction in the primary energy	e consumption of sources	Financing	
Year	TJ	GWh	TJ	GWh	EUR thousands	
2014	45.75	_			9,667	
2015	24				0,557	
2016	0				0	
2014–2016	69.75	-			9.667	
2017	555	10.00			5,55.	
2018						
2019						
2020						
2017-2020						
Characteristics of measure						
(description of the measure and method used to make savings)	2014–2016 p	eriod. See Annex	3.		ch will be wound up in the	
Detailed description of the method to calculate energy savings (so that savings can subsequently be recalculated and verified)	<ul> <li>Energy savings are calculated on the basis of data under energy performance certificates for the schools and school facilities category (total floor area of renovated buildings in the given year, the resultant space heating energy requirement) and the number of buildings renovated under ROP 1.1 in the given year.</li> <li>Finances are calculated on the basis of the investment intensity of similar projects for the renovation of schools and school facilities under the Munseff programme, where funds are spent only on the financing of energy efficiency measures (i.e. excluding the cost of the completion of works, extensions, technical equipment, etc.).</li> </ul>					
Assumptions and estimates in the calculation of energy savings	<ul> <li>Energy savings: assumptions:         <ul> <li>initial condition: upper limit of F (168 kWh/(m2.a)),</li> <li>post-renovation: upper limit of C (84 kWh/(m2.a)) (based on the energy performance certificate in 2011)</li> <li>i.e. the average saving is approximately 84.00 kWh/(m2.a). That equates to approximately 208 MWh per building.</li> <li>Finances are quantified on the basis of investment intensity assumed to be EUR 1 450 per MWh (source: average investment intensity, schools, Munseff). These are the total investment costs, which are split at a ratio of 85%, 10 % and 5 % into the ERDF, the central government budget, and the budgets of municipalities and higher territorial units.</li> <li>The savings are indicated in the year following the year of renovation.</li> <li>Finances are indicated in the year of project completion.</li> </ul> </li> <li>Verification procedure showed that the information stated as the measurable indicator "Energy savings" (GJ per year) was the cumulative value for five years in multiple cases, as a result of which energy savings were overestimated. Therefore, the average energy saving per building under the programme verifying energy savings was used.</li> <li>Information on financing includes investment costs and items not used to make savings in the course of building renovation (technical equipment, vertical and horizontal extensions), and therefore these figures are counted via the investment intensity of projects focusing solely on energy efficiency (Munseff).</li> </ul>					
Reason for the use of estimates (e.g. if there are gaps in relevant information)						
energy savings made	Monitoring is carried out by the managing authority (the Ministry of Agriculture and Rural Development) and the intermediate body via the ITMS, where a measurable indicator is provided. Verification procedure by the Ministry of Economy/the Slovak Innovation and Energy Agency, however, found that this indicator is not always correctly presented (errors in units, cumulative savings for five years presented instead of annual savings, etc.). Therefore, savings were determined on the basis of energy performance certificates.  In the future, with similar projects it will be necessary to place a greater emphasis on measurable indicators and to check them periodically against the actually measured energy consumption before and after renovation.					
measure)	The Operation				20, which will be used to rogramme to the ROP	
<ul> <li>Overlapping anticipated with another measure</li> <li>Duplicate counting of savings</li> <li>Interaction with other measures</li> </ul>	-					

(support and horizontal)	
<u>'</u>	

			Improvements in the thermal performance of buildings –				
			Social services Source of financing: 2007–2013 Structural Funds, ROP,				
			Measure 2.1 Infrastructure of social services, social				
			protection and social care				
Reporting period  Duration of the measure (from – to			,	h an outlook up	to 202	0	
Responsible ministry	)		2007–2013, n+2	iculture and Rur	al Dev	elonment	
Energy savings apply to:	Heat	Natural gas	Electricity	Fuels		Other:	
% (forecast)							
Planned	Energy saving	gs – FEC	Reduction in the primary energy	e consumption of sources	Finan	cing	
Year	TJ	GWh	TJ	GWh	EUR t	thousands	
2014 2015	76.75 12.79					4,701 89,907	
2016	244.64					09,907	
2014–2016	334.19					94,608	
2017							
2018 2019							
2019							
2017-2020							
Characteristics of the measure			s under the RO	P 2007–2013 whi	ch will	be wound up in the	
Characteristics of the measure	2014–2016 p						
		avings: the basis r and the project				under ROP 2.1 in a	
Detailed description of the method			ed baseline and	a resultant space	neatii	ng energy	
to calculate energy savings	- Finances	are calculated or					
(so that savings can subsequently						Slovseff and State	
be recalculated and verified)						ds are spent only on	
		cing of energy eff on of works, exte				cost of the	
		avings: assumpti		a. oquipinoni, ot	J.,.		
	- initial condition: the energy performance of buildings based on average space						
	heating energy consumption under the national project "Support of instruments to						
	introduce and optimise measures in the energy efficiency of public buildings", within the scope of the Operational Programme Competitiveness and Economic						
	Growth, for social facilities (206 kWh/(m2.a));						
	- the avera	ge energy require	ement for space	e heating following		renovation of social	
			I, by a qualified estimate, to be the upper limit of C for 0 kWh/(m2.a)), because, judging by their method of use,				
Assumptions and estimates in the		mily buildings (୪। e generally acco	· ///	,, , ,	by the	eir method of use,	
calculation of energy savings					ely 126.00 kWh/(m2.a)		
	- Finances	are quantified or	intified on the basis of investment intensity assumed to be EUR				
		r MWh (source: a					
		n projects under					
				ese are the total investment costs, which are split at a 6 into the ERDF, the central government budget, and the			
	budgets	of municipalities	s and higher ter	ritorial units.		_	
		gs are indicated	,		renov	ration.	
		are indicated in tion procedure sl			nd ac f	ha maasurahla	
						alue for five years in	
	multiple	cases, as a resu	It of which ene	rgy savings were	overe	estimated. Therefore,	
Reason for the use of estimates		age energy savir	ng per building	under the progra	ımme	verifying energy	
(e.g. if there are gaps in relevant information)	_	was used.	ı includes inves	stment costs and	itoms	not used to make	
						nent, vertical and	
	horizon	tal extensions), a	and therefore th	ese figures are o	ounte	d via the investment	
		y of projects foc					
						f Agriculture and nere a measurable	
						nomy/the Slovak	
	Innovation a	nd Energy Agend	y, however, fou	ınd that this indi	cator i	s not always	
Monitoring and verification of the		sented (errors in					
energy savings made		inual savings, etc rmance certificat		avings were dete	rmine	ed on the basis of	
				ecessary to plac	e a gre	eater emphasis on	
	measurable i	ndicators and to	check them pe	riodically agains	_	ctually measured	
Overall evaluation in the		umption before a	nd after renova	tion.			
Overall evaluation and way forward (success of the measure,		14-2020 which w	ill he used to fi	nance the renov	ation 4	of public buildings,	
continuation or closure of the		up programme to				o. pasiio saiiaiiigs,	
measure)		- <del>-</del>		•			

			Improvements in	the thermal perfo	orman	ce of buildings –
Measure 3.4 3AP			Cultural facilitie	es		ŭ
Public sector						ral Funds, ROP, ral potential of the
Reporting period			2014-2016, wit	n an outlook up t	o 202	0
Duration of the measure (from - to)			2007-2013, n+2			
Responsible ministry			Ministry of Agr	iculture and Rura	al Dev	/elopment
Energy savings apply to:	Heat		Electricity	Fuels		Other:
% (forecast)		<u> </u>	,			
Diamed	Energy saving energy consur	s – FEC (final nption) <sup>16</sup>	Reduction in the primary energy:	consumption of sources	Finan	ncing
Year		GWh			EUR	thousands
2014	0.67	0.18				569
2015	0.89	0.25				2,194
2016	3.42	0.95				0
2014–2016	4.98					2.763
Characteristics of the measure		jects in progress		2007–2013 which	ch will	I be wound up in the
Detailed description of the method to calculate energy savings (so that savings can subsequently be recalculated and verified)	<ul> <li>Energy savings: based on the measurable indicator "Energy-saving" in GJ per year in the given year under ROP 3.1. In many projects, the measurable indicator is equal to 0.</li> <li>Finances are calculated on the basis of the investment intensity of projects focusing on the renovation of cultural facilities under the Energy Efficiency in Public Buildings pilot project, where funds are spent only on the financing of energy efficiency measures (i.e. excluding the cost of the completion of works, extensions, technical equipment, etc.).</li> </ul>					
Assumptions and estimates in the calculation of energy savings	EUR 2 30 schools, investme the cente territoria The savir Finances	ent costs, which ral government b il units. igs are indicated are indicated in	rce: average invoy in Public Bui are split at a rate audget, and the in the year follothe year of proj	vestment intensited ings pilot projection of 85 %, 10 % budgets of municolors the year of ect completion.	ty, cul ect). T and 5 cipalit	Itural buildings, hese are the total is into the ERDF, ties and higher vation.
Reason for the use of estimates (e.g. if there are gaps in relevant information)	savings in t completion investment	of construction vintensity of proje	ding renovation work), and there ects focusing so	i (technical equip fore these figure dely on energy e	oment es are fficier	t, vertical extensions, counted via the ncy.
energy savings made	Monitoring is carried out by the managing authority (the Ministry of Agriculture and Rural Development) and the intermediate body via the ITMS, where a measurable indicator is provided. Verification procedure by the Ministry of Economy/the Slovak Innovation and Energy Agency, however, found that this indicator is not always correctly presented (errors in units, cumulative savings for five years presented instead of annual savings, etc.). Therefore, savings were determined on the basis of energy performance certificates.  In the future, with similar projects it will be necessary to place a greater emphasis on measurable indicators and to check them periodically against the actually measured energy consumption before and after renovation.					
Overall evaluation and way forward	The IROP 2014–2020, which will be used to finance the renovation of public buildings, in particular, is the follow-up programme to the ROP 2007–2013.					
<ul> <li>Overlapping anticipated with another measure</li> <li>Duplicate counting of savings</li> <li>Interaction with other measures</li> </ul>	-					

 $<sup>^{16}</sup>$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

ivieasure 3.5 SAP			Improvements in the thermal performance of public buildings  – Fire stations				
Public sector			Source of financing: 2007–2013 Structural Funds, ROP, Measure 4.2 Infrastructure of non-commercial rescue services				
Reporting period			2014-2016, v	vith an outlook up	to 2020		
Duration of the measure (from - to)			2007-2013, r	1+2			
Responsible ministry			Ministry of A	griculture and Rur	al Development		
Energy savings apply to:	Heat	Natural gas	Electricity	Fuels	Other:		
% (forecast)	35 %	65 %	•				
Planned	Energy saving energy consu	gs – FEC (final mption) <sup>17</sup>	Reduction in primary energ	the consumption of	Financing		
Year	TJ	GWh	TJ	GWh	EUR thousands		
2014	9.04	2.51				263	
2015	0.87	0.24	ı			0	
2016	17.762	4.93	3			0	
2014–2016	27.67					263	
Characteristics of measure (description of the measure and method used to make savings)				that is being wou	•		
to calculate energy savings (so that savings can subsequently be recalculated and verified)	Finances are	calculated on the calculated o	e basis of the	e investment intens	novation are not ava sity for production ha mme Competitivenes	alls at	
Assumptions and estimates in the calculation of energy savings	ances: qualif same as for Programme	ied estimate: the production halls Competitiveness	at industrial e	enterprises: EUR 1 ic Growth).	itions is assumed to 090 per MWh (Opera	ational	
Reason for the use of estimates (e.g. if there are gaps in relevant information)	as the total in	nvestment costs nat does not conf	covered by g tribute to ene	rants also encomp rgy savings.		·	
Monitoring and verification of the energy savings made	Monitoring is carried out by the managing authority (the Ministry of Agriculture and Rural Development) and the intermediate body via the ITMS, where a measurable indicator is provided. Potential error rate in the measurable indicator values stated. In the future, with similar projects it will be necessary to conduct improved checks on measurable indicators and to inspect these values periodically against the actually measured energy consumption before and after renovation.						
Overall evaluation and way forward (success of the measure, continuation or closure of the measure)	The ROP 200	the IROP 2014-20			e projects. It will be se the renovation of p	oublic	
<ul> <li>Overlapping anticipated with another measure</li> <li>Duplicate counting of savings</li> <li>Interaction with other measures (support and horizontal)</li> </ul>	Overlapping	: none anticipate	d. Duplicate o	counting: none.			

 $<sup>^{17}</sup>$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

					of public buildings –		
Measure 3.6 3AP			administrative buildings, buildings of schools and school				
		facilities, healthcare facilities					
			Source of financing: Operational Programme				
				Quality 2014–20			
Reporting period				h an outlook up	to 2020		
Duration of the measure (from – to)			2014-2020, n+2		iniates of Facements Classels		
Responsible ministry			Innovation and	l Energy Agency			
Energy savings apply to:	Heat	Natural gas	Electricity	Fuels	Other:		
% (forecast)		EEO (C. 1					
Planned	energy consu	gs – FEC (final mption) <sup>18</sup>	Reduction in the primary energy	e consumption of sources	Financing		
Year	TJ	GWh	TJ	GWh	EUR thousands		
2014	0.00	0.00			0		
2015	0.00	0.00			0		
2016	464.40	129.00			129,489		
2014–2016	464.40	129.00			129,489		
2017	464.40	129.00			129,489		
2018	309.60	86.00			86,326		
2019	309.60	86.00			86,326		
2020	0.00	0.00			0		
2017-2020	1,083.60	301.00			302,142		
		s will focus in pa		of atminations			
	a) improveme	ents in the therm	ai periormance	or structures;	h at water avaters		
		ition of space ne lifts to reduce en			hot water systems,		
		n of measuremen					
					ct heating systems;		
					imption in a building.		
					prehensive projects		
Characteristics of measure					v-energy buildings, ultra-		
(description of the measure and					aid intensity will be set on		
method used to make savings)		he energy saving		J	•		
	Conditions:		•				
					ing the design energy		
				num requirement			
					energy consumption		
					ne annual climatic		
					auditing, within the scope		
			amme Competi	liveness and Eco	nomic Growth, drawn up		
		ic buildings).	dividual vacua	vara datarminad	by an expert estimate		
Detailed description of the method					r projects in Slovakia (the		
to calculate energy savings				project – Bohuni			
					anagers in the renovation		
be recalculated and verified)	of public buil	dings – for exam	ple MUNSEFF	– and the results	of the JASPERS project),		
		projected alloca					
				lual years to refle	ect the gradual		
Assumptions and actimates in the	implementation of the Operational Programme Environmental Quality in Slovakia						
Assumptions and estimates in the calculation of energy savings	following the	approval thereo	f. Experience o	f implementation	from the 2007–2013		
calculation of energy savings	period (the O	perational Progr	amme Competi	tiveness and Eco	onomic Growth) was		
	incorporated	into this breakd	own.				
Reason for the use of estimates	L						
(e.g. if there are gaps in relevant	Planning of a	new measure.					
information)							
Monitoring and verification of the energy savings made	Monitoring and verification of the energy savings made will be the responsibility of the Slovak Innovation and Energy Agency.						
Overall evaluation and way forward				ronmental Ouglit	y is undergoing approval		
(success of the measure,					nergy savings and		
continuation or closure of the		uirements are pre		iy ale plailied el	icigy saviligs allu		
measure)	iaiiciai reqi	an officials are pre	Josintou.				
- Overlapping anticipated with							
another measure	None anticipa	ated.					
- Duplicate counting of savings							
- Interaction with other measures							

The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

19 The minimum requirements for the global indicator — the upper limit of energy class B (Act No 555/2005 on the energy performance of buildings, as amended by Act No 300/2012 and Implementing Decree of the Ministry of Transport, Construction and Regional Development No 364/2012)

Measure 3.11 3AP			Upgrading of pu	blic street lighting			
					Structural Funds,		
		Operational Programme Competitiveness and Economic					
			Growth, Measure 2.2				
Reporting period				h an outlook up	to 2020		
Duration of the measure (from – to)	1		2007–2013, n+2				
,	'				novation and Energy		
Responsible ministry			Agency				
Energy savings apply to:	Heat	Natural gas	Electricity	Fuels	Other:		
% (forecast)			100 %				
Planned	Energy saving energy consu	gs – FEC (final mption) <sup>20</sup>	Reduction in the primary energy:	consumption of sources	Financing		
Year	TJ	GWh ´		GWh	EUR thousands		
2014	0.21	0.06			24,346		
2015	67.30				12.996		
2016	39.47	10.96			0		
2014–2016	106.98				37,342		
2017 2017	0.00				0.00		
2018	0.00				0.00		
2019	0.00				0.00		
2020	0.00				0.00		
2017-2020	0.00				0.00		
2017-2020				liabtina inalud	ing the replacement of		
Characteristics of measure					fixtures. Form of support		
(description of the measure and					ded in the programming		
method used to make savings)					nme Competitiveness and		
method used to make savings)	Economic G		andar or the Ope	erational Frogra	nine Compentiveness and		
	Bottom-up. E	nergy savings a	re calculated fo	r each project.			
Detailed description of the method	Energy savin	gs are calculated	d on the basis o	f measurable inc	licators referred to in the		
to calculate energy savings	design docu	mentation (for co	mpleted project	ts, this is the anı	nually reported value; for		
(so that savings can subsequently	projects in p	rogress, this is th	ne planned valu	e of the measura	ble indicator).		
be recalculated and verified)				rt estimates of s	avings achieved		
		the initial condit	ion.				
Assumptions and estimates in the	Estimates us	ed:					
calculation of energy savings	30% electrici	ty savings in the	operation of pu	ıblic lighting hav	e been estimated.		
Reason for the use of estimates							
(e.g. if there are gaps in relevant	-						
information)							
Monitoring and verification of the	30 % electric	ity savings in the	oneration of n	ublic lighting bay	ve been estimated.		
energy savings made		, ,	•				
Overall evaluation and way forward					authority (the Ministry of		
(success of the measure,					vak Innovation and Energy		
continuation or closure of the					ompletion, beneficiaries		
measure)			,		sis of energy auditing or		
·	a procedure	confirmed by the	statutory repre	sentative.			
- Overlapping anticipated with	L.						
another measure	There is no c	vorlanning					
l							
- Duplicate counting of savings	Duplicate co	unting of savings					
- Duplicate counting of savings - Interaction with other measures (support and horizontal)	Duplicate co			sulting for munic	cipalities.		

The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

 $<sup>^{20}</sup>$  The following conversion rate Is used to convert energy savings: 1 GWh = 3.6 TJ.

### **Transport sector**

			le			1
Measure 4.1.1a 3AP			Fleet renewal	andernication of	tha fla	oot – rail transport
Transport sector			Renewal and modernisation of the fleet – rail transport Source of financing: Operational Programme Transport 2007–			
Reporting period			2013	h an outlook up	to 202	0
Duration of the measure (from – t	0)		2014–2016, WIL	ii ali outlook up	10 202	U
Responsible ministry	<b>0</b> )			nsport, Construc	tion a	nd Regional
Energy savings apply to: Heat	Notur	al gas	Development Electricity	Fuels		Other:
Energy savings apply to: Heat  % x	ınatur v	ai yas	43.9 %	56.1 %		Other
•	Energy savings –	FFC (final		e consumption of		
Planned	energy consumpti	ion) <sup>21</sup>	primary energy	•		cing [EUR thousands]
Year	TJ	GWh	TJ	GWh	Opera Trans	ational Programme sport
2014	39.12	10.86				193,673
2015	39.12	10.86				209,942.6
2016	-	-				-
2014–2016	78.24	21.72				403,615.6
2017						
2018						
2019						
2020						
2017-2020	- 					amlessly from the
Characteristics of measure (description of the measure and method used to make savings)	Action Plan for 2011–2013. Eligible project applicants are public rail passenger transpor carriers in Slovakia, such as ZSSK and municipal transport enterprises, as well as towns operating public rail transport. This measure will be financed with funds from the Operational Programme Transport 2007–2013. This measure is implemented on the basi of the Operational Programme Transport 2007–2013 and comprises the implementation of the following specific projects: "Mobile resources for suburban and regional passenger rail transport in the integrated transport system" (20 diesel multiple units, 9 electric double-decker multiple units), "DPB, tram fleet renewal in Bratislava" (15 unidirectional 32m, 15 bidirectional 32m), "Tram fleet renewal in Košice" (23). This is a continuous measure of no fixed duration. The principle pursued by the measure is the purchase of new electric and diesel train units for deployment in regional transport and the replacement of the obsolete fleets of carriers responsible for urban public rail transportation in the public interest in Bratislava, Košice, Prešov and Žilina. Energy savings will be made by reducing the consumption of fuel and electricity (if electric traction units are used) by new more efficient fleet units replacing the current outdated				nds from the mented on the basis he implementation and regional el multiple units, 9 atislava" Košice" (23). This is the measure is the ional transport and an public rail d'Zilina. Energy icity (if electric e current outdated	
Detailed description of the method to calculate energy savings (so that savings can subsequently be recalculated and verified)	units/vehicles.  The methodology used to calculate the estimated energy savings is based on a comparison of fuel consumption in past annual traffic by more energy-efficient vehicles with consumption in annual traffic reported for the existing outdated fleet. The specific energy saving is expressed as a reduction in the consumption of the fuel (diesel) and electric traction of new vehicles/units compared to the original outdated fleet. The calculation is tied to specific towns and territories where new vehicles and transport units are deployed and is derived from the average volume of traffic reported per vehicle/unit used annually in the analysed territory.					
Assumptions and estimates in the calculation of energy savings	fuel among newl savings, express means of compa use. If new electikWh per urban k will have 10 %² lot that these sets w passenger load of deployed, the cabefore-and-after electricity consureduction in con	y acquired vehiced as a percentrative projects ric double-deck m is anticipated ower consumpt vill be in daily cof the units defilculation of sav project in such mption which is under the measunder the measure as a project in such mption which is under the measure as a project in such mption which is under the measure as a project in such is under the measure as a project in such is under the measure as a project in such is under the measure as a project in such is under the measure as a project in such is under the measure as a project in such is under the measure as a project in such is under the measure as a project in such is a project in such is under the measure as a project in such is a project in such in	icles compared tage, are prese at undertaking er multiple unid. 22 With the ne ion compared tirculation for 23 ined by the mainings is based of a manner that is 164 MWh (30 der consideratissure, 85 % cov	to the original value by manufacts where the new test are deployed, and diesel units, the other original transport of the new trolleybush on. 24 In the finance age from EU set the new trolleybush on. 24 In the finance age from EU set the new trolleybush on. 25 In the finance age from EU set the new trolleybush on. 26 In the finance age from EU set the new trolleybush on. 26 In the finance age from EU set the new trolleybush on. 26 In the finance age from EU set the new trolleybush on. 26 In the finance age from EU set the new trolleybush on. 26 In the finance age from EU set the new trolleybush on. 27 In the finance age from EU set the new trolleybush on the	ehicle turers vehicle a unit ne ass in uni ately { r trolle erived us rep new t cing o	s and verified by les are in routine saving of 0.004017 umption is that they ts. It is estimated 8 hours), with the eybuses are 1 from a comparative ports annual

The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

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The following conversion rate is used to convert energy savings: 1 GWh = 3.6 T

(e.g. if there are gaps in relevant	In cases where the necessary figures were not forthcoming directly from public passenger transport operators or if they could not be determined by means of statistical methods, in the setting of []
Monitoring and verification of the energy savings made	Periodic evaluations of compliance with the energy-saving values planned under this measure will be carried out by means of the calculation described above, taking into account projects under the measure which have actually been implemented and the energy savings which have actually been measured. Information on energy consumption or energy savings will be monitored by means of a series of measurements in the field, taken to compare electricity and fuel consumption before and after the implementation of the measure.
Overall evaluation and way forward (success of the measure, continuation or closure of the measure)	This measure will continue as long as the public passenger transport projects defined under the Operational Programme Integrated Infrastructure 2014–2020 are implemented and the co-financing of measures/projects is provided by the EU.
	Overlapping with another measure and the duplicate counting of savings are not anticipated.

Manager 4.4.4 h 2AD			Fleet renewal			
			Renewal and m			eet – rail transport
Transport Sector			Source of financing: Operational Programme Integrated Infrastructure 2014–2020			
Reporting period			2014–2016, witl	h an outlook up	to 202	.0
Duration of the measure (from – t Responsible ministry	0)		•	nsport, Construc	tion a	ınd Regional
	Matur		Development Electricity	Fuels		Othor
Energy savings apply to: Heat  x	natur x		43.9 %	Fuels 56.1 %		Other:
	Energy savings –		Reduction in the			
Planned	energy consumpti	ion) <sup>25</sup>	primary energy s			cing [EUR thousands]
Year	TJ		TJ	GWh		ational Programme rated Infrastructure
2014	3.19					11900
2015	3.19					16900
2016	6.33					63169
2014–2016	12.71					91969 <b>154950</b>
2017 2018	27.28 30.34				-	205375
2019	2.65				<del>                                     </del>	35,613
2020	3.97					56,131
2017-2020	64.24					425069
Characteristics of measure (description of the measure and method used to make savings)	The "Fleet renewal" measure is an ongoing measure following on seamlessly from to measure "Fleet modernisation – public rail transport", defined in the Energy Efficient Action Plan for 2011–2013. Eligible project applicants are public rail passenger transcarriers in Slovakia, such as ZSSK and municipal transport enterprises, as well as to operating public rail transport. This measure will be financed with funds from the Operational Programme Integrated Infrastructure 2014–2020. Implementation of the measure is derived from the Slovak Public Passenger and Non-motorised Transport Development Strategy up to 2020 and contains all "green" fleet renewal projects identified by the strategy document. This measure comprises the implementation of following specific projects: "Project to purchase electric units in the integrated transsystem" (25 units in the vicinity of Žilina), "Project to purchase diesel units in the integrated transport system" (10 units in the vicinity of Banská Bystrica and Zvolen) "Renewal of the tram fleet in Bratislava" (90 units), "Renewal of the trolley bus fleet Bratislava" (66 units), "Low-floor and energy efficient trolleybuses and power assist trolleybuses for Žilina" (27 units), "Renewal of the tram fleet in Košice" (23 units) an "Purchase of double-deckers for Prešov" (18 units). This is a continuous measure of fixed duration. The principle pursued by the measure is the purchase of new electric diesel train units for deployment in regional transport and the replacement of the obsolete fleets of carriers responsible for urban public rail transportation in the publinterest in Bratislava, Košice, Prešov and Žilina. Energy savings will be made by reducing the consumption of fuel and electricity (if electric traction units are used) to the public rail transportation on the publication.					Energy Efficiency passenger transport les, as well as towns ands from the centation of the rised Transport wal projects plementation of the integrated transport lunits in the rica and Zvolen), rolley bus fleet in and power assisted lee" (23 units) and lous measure of no e of new electric and ement of the ation in the public be made by units are used) by hicles.
savings (so that savings can subsequently be recalculated and verified)	The methodology used to calculate the estimated energy savings is based on a comparison of fuel consumption in past annual traffic by more energy-efficient vehicles with consumption in annual traffic reported for the existing outdated fleet. The specific energy saving is expressed as a reduction in the consumption of the fuel (diesel) and electric traction of new vehicles/units compared to the original outdated fleet. The calculation is tied to specific towns and territories where new vehicles and transport units are deployed and is derived from the average volume of traffic reported per vehicle/unit used annually in the analysed territory.  A prerequisite applied in the calculation is the percentage-based saving in electricity and fuel among newly acquired vehicles compared to the original vehicles in use. These savings, expressed as a percentage, are presented by manufacturers and verified by					
	kWh per urban k will have 10 % <sup>5</sup> lower cons sets will be in da load of the units	m is anticipated sumption compaily circulation for defined by the vings is based uch a manner taich is 164 MWh umption to 168 than the same taich is 164 muption to 168 than the same taich is 164 muption to 168 than the same taich is an the same taich is 164 muption to 168 than the same taich is an the same tail in the same tail is an the same tail in the same tail is an the same tail in the same tail is an the same tail in the same tail is an the same tail in the same tail in the same tail is an the same tail in the same tail is an the same tail in the same tail is an the same tail in the same tail is an the same tail in the same tail in the same tail is an the same tail in the same tail is an the same tail in the same tail i	d. <sup>26</sup> With the new ared to the orig or 250 km (appi manufacturer. I on a projection hat the new trol (30 %) lower. <sup>27</sup> ordinary buses	w diesel units, the inal train units. I roximately 8 hou fow trolleybus derived from a cleybus reports a New buses with . With new trams.	ne ass irs), w es are compa innual n hybri s, a 25	arative before-and- l electricity id engines have 5 % reduction in

The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

Project to renew railway rolling stock, available online at: http://www.slovakrail.sk/sk/o-spolocnosti/proiekty-eu/proiekt-obnovy-zkv.html?no-graphics=0&print&print&print.

Available online at: <a href="http://www.zilina.sk/dokumenty/DokumentyProgramyMZ">http://www.zilina.sk/dokumenty/DokumentyProgramyMZ</a> 20130619103328.pdf>

Available online at: <a href="http://www.busportal.sk/modules.php?name=article&sid=9384">http://www.busportal.sk/modules.php?name=article&sid=9384</a>

Expert estimate by the Transport Research Institute.

	projects under the measure, 85 % coverage from EU sources (the Operational Programme Transport 2007–2013 and the Operational Programme Integrated Infrastructure 2014–2020) is anticipated.
Reason for the use of estimates (e.g. if there are gaps in relevant information)	The expert estimate by the Transport Research Institute was used in calculations only in cases where the necessary figures were not forthcoming directly from public passenger transport operators or if they could not be determined by means of statistical methods.
Monitoring and verification of the energy savings made	Periodic evaluations of compliance with the energy-saving values planned under this measure will be carried out by means of the calculation described above, taking into
Overall evaluation and way forward (success of the measure, continuation or closure of the measure)	This measure will continue as long as the public passenger transport projects defined under the Operational Programme Integrated Infrastructure 2014–2020 are implemented and the co-financing of measures/projects is provided by the EU.
<ul> <li>Overlapping anticipated with another measure</li> <li>Duplicate counting of savings</li> <li>Interaction with other measures (support and horizontal)</li> </ul>	Overlapping with another measure and the duplicate counting of savings are not anticipated.

					Fleet renewal			
Measure 4.1. 2 3AP					Renewal and modernisation of the fleet – Bus/coach			
					transport			
Transport sector					Source of financing: IROP 2014–2020			
Reporting period					2014–2016, w	ith an outlook	up to 2020	0
Duration of the measure (from - to	0)							
Responsible ministry					Ministry of Ti Development	ransport, Cons t	truction a	nd Regional
Energy savings apply to:	Heat	Natura	al gas		Electricity	Fuels		Other:
%	x	x			43.9 %	56.1 %		
Planned	Energy savi energy cons	ngs – I	FEC (final		Reduction in t primary energ	he consumptior v sources		Financing [EUR thousands]
Year	TJ		GWh		TJ	GWh		IROP
2014		4.00		1.11				8000
2015		2.00		0.56				4000
2016		0.00		0.00				0.00
2014–2016		6.0		1.67				12,000
2011 2010	The "Fleet				an ongoing r	neasure follow	ing on sea	amlessly from the
Characteristics of measure (description of the measure and method used to make savings)	transport of IROP 2014- Passenger renewal proimplementa (30 units)". the measur of a carrier will be made	rganis 2020. Trans ojects ation o This i e is th provide by re	ers, etc. The Implement port Develoidentified Information the follows a continue purchaseding mass educing th	his ratio opmoby the ving solution of the contract of the cont	measure will I n of the meas ent Strategy ne strategy do project: "Puis measure of new low-floor sportation in	be financed with the first series of the country of	th funds fr from the S I contains measure c loor hybri on. The pr to replace erest in Žili	Blovak Public all "green" fleet
method to calculate energy savings (so that savings can subsequently be recalculated and verified)	units replacing the current outdated vehicles.  The methodology used to calculate the estimated energy savings is based on a comparison of fuel consumption in past annual traffic by more energy-efficient with consumption in annual traffic reported for the existing outdated fleet. The energy saving is expressed as a reduction in the consumption of the fuel (diesvehicles compared to the original outdated fleet. The calculation is tied to a speterritory where new vehicles will be deployed and is derived from the average of traffic reported per vehicle used annually in the analysed territory (the area ser city of Žilina).				y-efficient vehicles fleet. The specific fuel (diesel) of new ed to a specific average volume of e area served is the			
Assumptions and estimates in the calculation of energy savings	newly acquexpressed comparative buses with assumption buses. In the 85 % cover	iired von as a por e projet hybrid hybrid in that the finate ge fo	ehicles con ercentage, ects at uncond dengines a the new ve ncing of the r projects	mpa are derta are d hick ne in	red to the origonessented by akings where deployed, the es will have 3 vestment costemented und	ginal vehicles manufacturer the new vehicl calculation of 9 % lower consts of projects ler the IROP 20	in use. The sand verifies are in resavings described by the savings described by the last the last 14–2020 is	fied by means of outine use. If new raws on the than ordinary measure,
(e.g. if there are gaps in relevant information)	cases where transport o	re the perato	necessary ors or if the	figu y co	res were not ould not be de	forthcoming d etermined by m	irectly fror neans of st	n public passenger tatistical methods.
Monitoring and verification of the energy savings made	measure w account pro on energy o measureme implementa	ill be o ojects consu ents in ation o	carried out under the mption or o the field, to f the meas	by r mea ener take sure.	means of the one of th	calculation des ave actually be ill be monitore	scribed ab een implen d by mear tion before l be taken	ove, taking into nented. Information as of a series of and after the
continuation or closure of the measure)	under the I	ntegra	ted Regior	nal C	perational Pi		4–2020 are	projects defined implemented and
<ul> <li>Overlapping anticipated with another measure</li> <li>Duplicate counting of savings</li> <li>Interaction with other measures (support and horizontal)</li> </ul>	Overlappin anticipated		another m	eas	ure and the d	uplicate count	ing of savi	ings are not

 $<sup>^{-30}</sup>$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

Measure 4.2. 3AP				Building and up	grading the transc	oort infrastructure			
Wiededie 1.2. 6, ti				Building and upgrading the transport infrastructure Source of financing: Operational Programme Transport					
Transport sector				2007-2013, Operational Programme Integrated					
Barrardia a sa sais d				Infrastructure 2014–2020					
Reporting period  Duration of the measure (from	.m _ t	2)		2014–2016, with an outlook up to 2020					
Responsible ministry	)III — U	<i>)</i>		Ministry of Transport, Construction and Regional					
Energy savings apply to: Heat Natural gas			Development Electricity Fuels Other:						
%	X	X	iturai yas	X	100 %	Other:			
		Energy saving	s – FEC (final		e consumption of	L			
Planned		energy consur	nption) <sup>31</sup> `	primary energy	sources	Financing			
Year		TJ	GWh	TJ	GWh	EUR thousand			
2014		52.09	14.47			644,984			
2015		168.68	46.85			950,967			
2016		203.76	56.60			1,252,005			
2014–2016 <b>2017</b>		424.53 <b>271.62</b>	117.93 <b>75.45</b>			2,847,956 <b>1,205,002</b>			
2018		203.68	56.58			1,143,726			
2019		467.88	129.97			859,152			
2020		713.58	198.22			170,323			
2017-2020		1656.76	460.21			3,378,203			
						sure is an ongoing			
						e Energy Efficiency Action			
						rastructure managers in and Railways of the Slovak			
			R). Implementation						
			ntegrated Infrastru						
						inder the Operational			
Characteristics of measure						eration until the 2014–2016			
(description of the measure						ation. The principle			
method used to make saving		pursued by the measure is the building of new large-capacity sections of road infrastructure, the removal of defects in class I roads and the upgrading of the railway							
						onsumption of road			
		infrastructure users on new technically more refined infrastructure compared to the original technically outdated road infrastructure. In rail transport, energy savings are							
		generated by reducing the number of bursts of speed on the transport infrastructure,							
		made possible by the upgrading of the track, and by enhancing comfort, winning over passengers from private car use.							
					often the comple	tion and unareding of			
		The reduction in specific energy consumption after the completion and upgrading of transport infrastructure is derived from the transfer of motorised vehicles to motorways							
		and expressways from class I roads running parallel to the newly completed sections.							
		The calculation draws on information about the length of the sections of newly built road,							
		information on the traffic intensity on the roads in question, and the vehicle fuel							
Detailed description of the		consumption and price. Unit prices per litre of fuel in the reference period were taken							
method to calculate energy		from the Statistical Office of the Slovak Republic. Intensity on newly built sections was							
savings (so that savings car subsequently be recalculate		determined on the basis of the projected percentage of traffic distribution (class I roads, motorways and expressways) after the sections of motorway and expressway are put							
and verified)	·u	into operation; no traffic induction period is anticipated. The annual fuel savings in litres							
,		and the annual savings in the cost of fuel (in EUR) were determined for the reference							
		period by means of a table-based calculation. The fuel saving in litres was subsequently							
		converted into TJ. With railway infrastructure, the saving is expressed as a direct saving and as the fuel saving generated by the switching of passengers and cargoes from							
					iing or passenge	rs and cargoes from			
		private car use and road freight vehicles.  The basic assumption used in the calculation is the unit consumption of vehicle fuel on							
						ion: The average fuel			
						0km, the average fuel			
		•			, ,	y is 15 I/100km, the			
						ad is 23 I/100km, the			
		•	consumption of a			, ,			
			ie average fuel coi ie average fuel coi	•		on a class I road is			
Assumptions and estimates						otion of a petrol-driven			
the calculation of energy sa	vings					consumption of a petrol-			
		driven passei	nger car on a moto	rway/expressv	∕ay is 7.5 l/̃100km	n, the average fuel			
						l is 5.5 I/100km, and the			
		_	•		-	a motorway/expressway is			
			e weighted propor						
		considered to be 67 %, with petrol-driven vehicles accounting for 33 %. In the financing of the investment costs of projects under the measure, approximately 62.3 % coverage							
			urces is anticipate						
L									

 $<sup>^{\</sup>rm 31}$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

	The information used in the calculation of energy savings is based on the results of measurements taken in the performance of a research assignment by the Transport Research Institute., i.e. "Comparison of the cost of travelling through tunnels and on detour routes, 2007".
Monitoring and verification of the energy savings made	Periodic evaluations of compliance with the energy-saving values planned under this measure will be carried out by means of the calculation described above, taking into account projects under the measure which have actually been implemented. Information on energy consumption or energy savings will be monitored by means of periodic five-year nationwide traffic surveys and the subsequent recalculation of the savings based on the actually determined intensity on the new infrastructure. In rail transport, the quantified planned savings will be verified by monitoring the actual energy consumption of rail passenger and freight carriers, quantified per unit of capacity.
	This measure will continue as long as the projects defined under the Operational Programme Integrated Infrastructure 2014–2020 are implemented and the co-financing of measures/projects is provided by the EU.
L I IIINIICATA COLINTINA OT SAVINAS	Overlapping with another measure and the duplicate counting of savings are not anticipated.

Measure 4.3. 3AP			transport, inclu	ding support for th	use of public passenger se creation of integrated	
Transport sector			transport systems Source of financing: Operational Programme Transport 2007-2013, Operational Programme Integrated Infrastructure 2014–2020 2014–2016, with an outlook up to 2020			
Reporting period						
Duration of the measure (from – to)						
Responsible ministry			Ministry of Transport, Construction and Regional Development			
Energy savings apply to: Hea	at N	atural gas	Electricity	Fuels	Other:	
% x	x	==0 (f)	X	100 %		
Planned	Energy saving energy consu	gs – FEC (final		e consumption of	Financing	
Year	TJ	GWh	primary energy <b>TJ</b>	GWh	EUR thousands	
2014	0			OWN	90964.1	
2015	0				117,733	
2016	45.13	12.53			297533	
2014–2016	45.13	12.53			506230	
2017	19.21	5.34			216,833	
2018	26.52				5,500	
2019	0				0	
2020	45.70			-	0	
2017-2020	45.73			l nublic passarii:	122,333 r transport, including	
Characteristics of measure (description of the measure and method used to make savings)	2011–2013. E railway infrathe Operatio Integrated In Slovak Publiand contains transport and strategy doc projects: "Pi Šafárikovo n Hanulova - P stanica - Jan Janíkov dvol "ŽSR, Integra hlavná stanic Transport Te Nová Ves (im stanica - Jan Integrated Pa I: (DESIGN + c other "smalle Transport De quantificatio duration. The upgrading of passengers to less energ made by red private car u energy trolle The methodo	Eligible project applestructure manager, nal Programme Tra frastructure 2014—2 c Passenger and N all "green" project d the development ument. This measu votal urban public a fam., Part 1: Šafárik ri kríži section", "Paíkov dvor, traffic section", "Tramway upgrated Passenger Traca - Podunajské Bis ri minals (TIOP) in Emplementation)", "Paíkov dvor, traffic sectionentation)", "Paíkov dvor, traffic sectionentation)", "Par" projects defined evelopment Strateg nof the measure's exprinciple pursued foutdated public pair incentive to swipy intensive modes ucing fuel consumy se and the replacer y buses and trams.	licants are Slovie. ŽSR. This insport 2007–2 2020. Implemer on-motorised to supporting to of integrated to fintegrated to transport systems of integrated to transport systems of integrated to transport systems of integrated to the systems of public passion of public passion of the systems o	rak towns, transpreasure will be a possible of the metransport Development ansport systems he implementation, traffic sections akova ulica - Janíko a vajnorská and als (TIOP) in Bramentation)", "Žs ion: Bratislava hublic transport systanica - Šafáriko Popi in Košice, Statanica - Šafáriko Public Passeng not taken into a it. This is a contire is the implementation of the public bus transport (renger transport take the form of ith public bus transport of the public bus transpo	Dúbravka Tramway in the ystem, Stage 1, Hlavná v dvor, Part 2: Bosákova - Račianska Radial Road", tislava, Section: Bratislava R, Integrated Passenger lavná stanica - Devínska ystem, Stage 1: Hlavná ovo námestie", "ŽSR, lf-governing Region, Stage age 2". The contribution of er and Non-motorised count in the nuous measure of no fixed entation of new and the re required to give especially private car use) Energy savings will be a reduction in the share of ansport employing low-	
Detailed description of the method to calculate energy savings (so that savings can subsequently be recalculated and verified)	projected red transportation use or publication use of trams not anticipate the tram and	duction in fossil fue on of passengers tra c bus transport and , trolleybuses and t e an increase in ele trolley bus transpo	el consumption avelling within I, after impleme the integrated t ectricity consul ort system.	n, i.e. fuel current Slovakia by mea entation of this manaport system entation associate	ely consumed in the ans of private road vehicle neasure's projects, making as. This methodology does and with the expansion of	
Assumptions and estimates in the calculation of energy saving	Research li impacts of in terms of in the calcu	nstitute in its handl proposed activities the contribution to llation of planned e	ing of the assign ing of the assign in the alow-carbon carbon carbon in the alow-carbon in the assign in the assig	gnment "Analysi EU for the 2014 economy". Basic are: ffic is taken to be	epared by the Transport s of an assessment of the -2020 programming period assumptions e an average of 70 % for	

 $<sup>\</sup>frac{1}{100}$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

	<ul> <li>The average consumption for an urban public transport bus is taken to be 30 l/100 km, while the average consumption for passenger cars is 8.5 l/100 km (petrol) or 5.5 l/100 km (diesel)</li> <li>The average occupancy of the replaced urban public transport buses is 34 passengers and the average occupancy of replaced PRIVATE CAR USE is 1.8 persons.</li> <li>In the project to implement the Bratislava pivotal urban public transport system (the construction of a tramway), it is expected that the new tram system will take over 90 % of passengers from the current urban public bus transport system and 10 % of private car users. Given these switches, the average vehicle occupancy considered, and the journey length (8 km) that will be replaced by the new tramway, annual fossil fuel savings associated with the need for approximately 1.5 million vehicle kilometres in the urban public bus transport system and 3.1 million vehicle kilometres in private car use can be anticipated.</li> <li>In the projects to construct integrated transport system in Bratislava, it is estimated that the entire urban public transport system in Bratislava carried 252 million passengers in 2012. It is projected that the construction of new terminals and the expansion of the integrated transport systems in Bratislava will attract a number of passengers from private car use to the extent that the annual fossil fuel consumption associated with the need for approximately 17.75 million vehicle kilometres currently travelled by private car users will be saved.</li> <li>In the projects to construct integrated transport system in Košice carried 86.8 million passengers in 2012. It is projected that the construction of new terminals and the commissioning of the integrated transport systems in Košice will attract a number of passengers from private car use to the extent that the annual fossil fuel consumption associated with the need for approximately 7 million vehicle kilometres currently travelled by private car users will be saved.</li> <li>In the</li></ul>
Reason for the use of estimates (e.g. if there are gaps in relevant information)	The expert estimate was used in calculations only in cases where the necessary figures were not forthcoming or could not be determined by means of statistical methods.
Monitoring and verification of the energy savings made	Periodic evaluations of compliance with the energy-saving values planned under this measure will be carried out by means of the calculation described above, taking into account projects under the measure which have actually been implemented.
Overall evaluation and way forward (success of the measure, continuation or closure of the measure)	This measure will continue as long as the projects defined under the Slovak Public Passenger Development Strategy Plan are implemented and are incorporated into the forthcoming Operational Programme Integrated Infrastructure 2014–2020 and the cofinancing of measures/projects is provided by the EU.
Overlapping anticipated with another measure     Duplicate counting of savings     Interaction with other measures (support and horizontal)	Overlapping with another measure and the duplicate counting of savings are not anticipated.

Measure 4.4 3AP			Support for the	development of no	on-moto	orised transport,
			especially cycling			
Transport sector Reporting period			Source of financing: IROP 2014-2020 2014–2016, with an outlook up to 2020			
Duration of the measure (from – t	(0)					
Responsible ministry			Ministry of Transport, Construction and Regional Development			
Energy savings apply to: Heat %	N	atural gas	Electricity	Fuels		Other:
Planned	Energy saving energy consu	gs – FEC (final mption) <sup>33</sup>	Reduction in the primary energy	e consumption of sources	Financ	cing
Year	TJ	GWh	TJ	GWh	EUR t	housands
2014	9.4	2.61				6,185
2015	0	_				90
<b>2016</b> 2014–2016	9.4					6,275
2014-2016 2017	1.57	0.44				80
2018	0					500
2019	0	C				1,068
2020	1.93	0.54				200
2017-2020	3.5	0.97 t for the developme				1,848
Characteristics of measure (description of the measure and method used to make savings)	Non-motoris the Developr non-motorise comprises the path Eurovelo Žilina (Solinky bus final stop "Cycle path P is a continuo construction give passeno use) to energ Energy savir	ment of Cycling in the dinfrastructure proper implementation to 13, Devinska cestady - centre)", "Construction of the collection of the co	lopment Strate, the Slovak Report ojects identified of the following (Karlova Vestaction of the V6 of the V9 cycle road Susstation and Infixed duration. It is and roads in the company of the vertage of the company of the vertage of	gy up to 2020 and ublic and contain and by the strategy pecific projects Devín)", "Construcycle road in Žilina din Žilina V9 (Vičir railway station - Ci The principle pur order to provide smotorised transportorised transportonsumption. The	d the N is all "q docui s: "Con ction of (Veľký nce - Ve ity of Ba rsued k suitable ort (esp it, espe is will	ational Strategy for green" cycling and ment. This measure astruction of the cycle f the H2 cycle road in to Diel - Vičince, trolley odné dielo)" and anská Bystrica". This by the measure is the e infrastructure to pecially private car acially cycling. take the form of a
Detailed description of the method to calculate energy savings (so that savings can subsequently be recalculated and verified)	The methodo projected rec transportatio use or public switch to no breakdown o	uction in the share of private car use in the overall breakdown of transport with the methodology for the calculation of energy savings is based on the quantificating jected reduction in fossil fuel consumption, i.e. fuel currently consumed in the importation of passengers travelling within the city by means of private road velow to the transport who, on completion of quality cycling infrastructure, we to non-motorised cycling. This will reduce the share of private car use in the akdown of transportation in the cities concerned.				sumed in the ivate road vehicle astructure, will car use in the
Assumptions and estimates in the calculation of energy savings	selected Slovin other Slovinother Slovinos in the city pe 3 %cycling a 2.8 km and, oper year. In Medical of the defin cities in Sicycling infra an expert estithe current leter in other slowing in the current leter slowing in the current slowin	vak cities – Žilina a rak cities where a nation is represented a under consideration day a population ay when a verage, a bicyckeeping with the fulling in the structure. By implestimate, to increase evel of 3 % to 4 % –	nd Prešov. The nobility survey in much the sa on are as follow on is 2.45 per dir use; the averable can be used ndamental vision is 2.45 per dir use; the averable share of cycling by 2020. Another menting this mathe current mother sales in the final sales is the sales of the sa	basic assumption has not been corume way as in the ws: the number of ay; the current mage length of a cyfor transportation of the National corumn, the aim is to erun the overall the key measure deasure, it would dal split in the reancing of the investment of the i	on of the ductees es seld fourn odal specifing to appropriate to be pospecified by the contraction of the co	ne calculation is that d, the mobility of the ected cities. The eys regularly taken plit in the city is rip in the city is eximately 150 days
Reason for the use of estimates (e.g. if there are gaps in relevant information)  Monitoring and verification of the energy savings made	Because the cities, the sh conducted ir prediction, a Periodic evalues		ese cities was  Due to the ins  as used to det  nce with the er  neans of the ca	determined on th ufficient quantity ermine the future nergy-saving valu alculation describ	e basis of inpelevel les pla oed abo	of cycling. nned under this ove, taking into

 $<sup>\</sup>overline{}^{33}$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

	energy consumption and energy savings will have to be monitored by means of transport surveys on cycling traffic using the infrastructure constructed under the non-motorised transport projects, and by subsequent verification of the projected increase in the proportion of cycling in the breakdown of city transportation, with a parallel contraction in private car use.
forward (success of the measure, continuation or closure of the	This measure will continue as long as the projects of non-motorised transport infrastructure defined under the Slovak Public Passenger Development Strategy Plan up to 2020 are implemented and are incorporated into the forthcoming Operational Programme Integrated Infrastructure 2014–2020 and the co-financing of measures/projects is provided by the EU.
	Overlapping with another measure and the duplicate counting of savings are not anticipated.

# **Energy transformation, transmission and distribution**

			0		-1
Measure 6.1 3AP			distribution system	onstruction and moder ns	nisation of heat
INDUSTRY sector			2014-2020, Priority Ax	ng: OPERATIONAL PROGRAMM is4, IP5 A. (Construction, re distribution systems)	ME ENVIRONMENTAL QUALITY econstruction and
Reporting period				an outlook up to 202	0
Duration of the measure (from - to	0)		2014-2020, n+2		
Responsible ministry			Ministry of the E (intermediate bo	nvironment (MA), Mi dy)	nistry of Economy
Energy savings apply to:	Heat	Natural gas	Electricity	Fuels	Other:
% (forecast)			Destruction to the co		
Planned	Energy saving	gs – FEC <sup>34</sup>	Reduction in the oprimary energy so	•	Financing
Year	TJ	GWh	TJ	GWh	EUR thousands
2014			0.00		
2015			0.00		
2016			714.96		89,397
2014–2016			714.96		,
2017			1072.44		- ,
2018			1072.44		,
2019			714.96		,
2020			0.00		
2017-2020			2,859.84	794 and 30 years old, and	
Characteristics of measure (description of the measure and method used to make savings)  Detailed description of the method to calculate energy savings (so that savings can subsequently be recalculated and verified)	last 10 years in relative los reconstruction where neces systems to the Savings in place of the	, part of the heat disses during the disses during the dison of technically a sary, there will be wo-tube systems with the systems of the distriction of the consibility of its systems, the project of the Operation of the Operation of the Operation of Programme Consider a programme Consider of the Market of the Consider of the Operation of the O	listribution systems tribution of heat. Independent of heat a change in the hour ces in district he estimate was basict heating networthe specific geograplementing project will be implement on al Programme Experience of im	aphical conditions a jects (depending on t	Iting in an increase on the gradual ution systems and, rom four-tube tations. It is allocation, the investment costs (in nd town planning the length of the gradual y in Slovakia ne 2007–2013 period
(e.g. if there are gaps in information)		a new measure.			
Monitoring and verification of the energy savings made		nd verification of t ation and Energy		s made will be the re	sponsibility of the
Overall evaluation and way forward (success of the measure, continuation or closure of the measure)	At present, the European			mental Quality is und planned energy savir	dergoing approval by ngs and financial
<ul> <li>Overlapping anticipated with another measure</li> <li>Duplicate counting of savings</li> <li>Interaction with other measures (support and horizontal)</li> </ul>	None anticip	ated.			

 $<sup>\</sup>overline{\,}^{34}$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.

Measure 6.2. 3AP			heat production pla with a maximum the	nts via high-perfor ermal input of 20 N	
INDUSTRY sector			2020, Priority Axis 4, IP5 electricity and heat produith a maximum therma	5 B. (Construction, reco duction plants via high- il input of 20 MW )	AMME ENVIRONMENTAL QUALITY 2014- onstruction and modernisation of performance combined production
Reporting period			2014–2016, with a	n outlook up to 2	020
Duration of the measure (fro	m – to)		2014-2020, n+2		
Responsible ministry			(intermediate body	y)	Ministry of Economy
0, 0 11 ,	Heat	Natural gas	Electricity	Fuels	Other:
% (forecast)					
Planned	Energy savings –	- FEC <sup>35</sup>	Reduction in the co primary energy sou	•	Financing
Year	TJ	GWh	TJ	GWh	EUR thousands
2014	·	1			
2015					
2016			70.20	19.50	12,500
2014–2016			70.20	19.50	12,500
2017			104.40	29.00	18,750
2018			104.40		
2019			70.20	19.50	12,500
2020			0.00	0.00	0
2017-2020			279.00	77.50	50,000
savings) Detailed description of the	primary energy	sources; the	construction of coa	al-fired facilities v	ucing the consumption of vill not be supported
can subsequently be recalculated and verified)	energy sources, combined form production of he	, the basis wa as opposed to eat.	is the projected sav the separate prod	ving in the produc duction of power	·
savings (so that savings can subsequently be recalculated and verified)  Assumptions and estimates in the calculation of energy savings	energy sources, combined form production of he Energy savings implementation the approval the	the basis wa as opposed to eat. are broken do of the Operate ereof. Experie gramme Com	s the projected save on the separate procomminto individual tional Programme Ence of implementat	ving in the production of power years to reflect tension of the control of the co	ction of heat and power in and the separate he gradual lality in Slovakia following
savings (so that savings can subsequently be recalculated and verified)  Assumptions and estimates in the calculation of energy savings  Reason for the use of estimates (e.g. if there are gaps in relevant information)	energy sources, combined form production of he Energy savings implementation the approval the Operational Prothis breakdown.  Planning of a ne	the basis wa as opposed to eat.  are broken do of the Operate ereof. Experie gramme Com	is the projected save of the separate procount into individual cional Programme Ence of implemental petitiveness and E	ving in the production of power years to reflect t Environmental Qu tion from the 200' conomic Growth	ction of heat and power in and the separate he gradual lality in Slovakia following 7–2013 period (the ) was incorporated into
savings (so that savings can subsequently be recalculated and verified)  Assumptions and estimates in the calculation of energy savings  Reason for the use of estimates (e.g. if there are gaps in relevant information)  Monitoring and verification of the energy savings made	energy sources, combined form production of he Energy savings implementation the approval the Operational Prothis breakdown.  Planning of a ne Monitoring and	at the basis was as opposed to eat.  are broken do of the Operate ereof. Experie gramme Comew measure.	s the projected save of the separate procount into individual cional Programme Ence of implemental spetitiveness and E	ving in the production of power years to reflect t Environmental Qu tion from the 200' conomic Growth	ction of heat and power in and the separate he gradual lality in Slovakia following 7–2013 period (the ) was incorporated into
savings (so that savings can subsequently be recalculated and verified)  Assumptions and estimates in the calculation of energy savings  Reason for the use of estimates (e.g. if there are gaps in relevant information)  Monitoring and verification of the energy savings made Overall evaluation and way forward (success of the	energy sources, combined form production of he Energy savings implementation the approval the Operational Prothis breakdown.  Planning of a ne Monitoring and Slovak Innovation At present, the Combined for the Source of the Sou	are broken do of the Operatereof. Experie gramme Comew measure.  verification of and Energy Operational Pommission. T	s the projected save of the separate procount into individual cional Programme Ence of implemental spetitiveness and English from the energy saving y Agency.	ving in the production of power  years to reflect to the invironmental Quation from the 200 conomic Growth is made will be the mental Quality is	ction of heat and power in and the separate  he gradual helity in Slovakia following 7–2013 period (the ) was incorporated into

 $<sup>\</sup>overline{\ \ }^{35}$  The following conversion rate is used to convert energy savings: 1 GWh = 3.6 TJ.