

# **Energy Efficiency: A Recipe for Success**

### Annex 2

Overview of energy efficiency policies measures: summary tables

Synthesis of the 2009 survey draft

## **Energy efficiency institutions and agencies**

	National Energ	y Efficiency Age	ency	Ministry Department f efficiency	or energy	Number	of regional	local EE
Europe	Name of the agency	Budget (MUS\$ or €)	Staff	(Yes or No)	Staff number	L for local/ R for regional	Regional agencies	Local agencies
Austria	Austrian Energy Agency	6,7 M€ (2007)	74	Y	1	R/L	4	6
Belgium	None			Y		R/L	3	16
Bulgaria	EEA	0,89 M\$ (2009)	70	Υ	11	R/L	5	5
Cyprus	CIE					R	1	
Republic	None			Υ	8	R/L	7	37
Denmark	Danish Energy Agency	30 M€ (2008)	41	Y	2	L		9
Estonia	KredEx			Y	3			
Finland	Motiva Oy	5,3 M€	33	Y	5	R/L	6	2
France	ADEME	319 M€ (2009)	850	Y	15	R/L	32	15
Germany	DENA		100	Υ		R/L	23	8
Greece	CRES	9.5M€	150	Υ	7	R/L	7	2
Hungary	Energy Centre	3,68 M€	60	Υ	8	R/L	1	150
Ireland	SEI	25.6 M€	43	Υ	4	L		17
Italy	ENEA	302 M€ (2006)	130	Υ	10	R/L	4	25
Latvia	None			Υ		L		2
Lithuania	Energy Agency	0,44 M€	29	None	None	R/L	1	1
Luxembourg	Agence de l'Energie (ALE)		8					
Malta	MRA	1.65 M€	49	Υ	2	R	1	
Netherlands	SenterNovem/ Agentschap NL	1113 M€	1250			R	4	
Poland	KAPE	1,5 M€	32	Y	4	R	11	
Portugal	ADENE	3,2 M€	40	Y		R/L	10	12
Romania	ARCE	9 M\$	62	None		R/L	3	6
Slovakia	SIEA	3,05 M€	106			R/L	2	1
Slovenia	None			Y	12	R	6	
Spain	IDAE	459 M€ (2010)	140			R/L	11	34
Sweden	STEM	337M€ (2009)	274	None	None	R/L	13	290
UK	Energy Saving Trust <sup>1</sup>			DECC	~1000	R/L	13	11
Norway	ENOVA	175 M€	55			R	1	
Croatia	EPEEF / EIHP	189 M€	100	Υ	2	R/L	3	1
Iceland	EAI	0,25 M\$ (2005)	2	Υ	1	R	1	
Montenegro	None							

<sup>1:</sup> UK does not have a national energy efficiency agency as such but government funds the work of the Energy Saving Trust and the Carbon Trust

				Ministry Department f	or energy	Number	of regional	local EE
	National Energ	y Efficiency Ag	ency	efficiency		agencies		
America	Name of the agency	Budget (MUS\$ or €)	Staff	(Yes or No)	Staff number	L for local/ R for regional	Regional agencies	Local agencies
Argentina	None			Υ	9	R/L	5	5
Bolivia	None			None				
Brazil	None			Energy Dpt	3	R/L	Υ	Υ
Canada	OEE	150 M \$Can	275	Υ		R	6	
Chile	CNE/PPEE		45					
Colombia				Y (UPME)				
Costa Rica	CONACE							
El Salvador				Y				
Mexico	CONUEE	5 M\$ (2010)	100	None		L		16
Paraguay	None			Y(VMME)	1			
Peru	None			Y (MEM)	5	R	23	
Trinidad &								
Tobago	None			None				1
Uruguay	None	-	-	Y (Energy Efficiency Unit)	7			
USA	EPA, NHTSA		100	Office of Energy Efficiency and Renewable Energy (EERE)	350	R/L	200	
Venezuela				Energy and Petroleum		L		1

				Ministry Department f	or energy	Number	of regional	local EE
	National Energ	y Efficiency Ag	ency	efficiency			agencies	
Asia	Name of the agency	Budget (MUS\$ or €)	Staff	(Yes or No)	Staff number	L for local/ R for regional	Regional agencies	Local agencies
Australia		, , , , , , , ,		у		R	2	. 9
China				Y		R	37	
Hong Kong (China)	EMSD Electrical and Mechanical Services Dept	160 M\$ HK	40	Environmental Bureau, Energy Division	5			
India	Bureau of Energy Efficiency	15,5 M€	80	Ministry of Power	10	R	31	
Indonesia	None			Υ	9			
Japan	ECCJ	52 M\$	122	MITI	26	R	17	
Rep of Korea	KEMCO	917 M\$	450	Y	11			
Malaysia	PTM		50	Y	31			
Mongolia	National Renewable Energy Agency	1,2 M\$	50	у	5			
Myanmar				Ministry of Energy				
New Zealand	EECA	92174 NZ\$	110	None				
Philippines	Energy Utilisation Management Bureau	0,5 M\$	33	PDOE	16	R	2	
Singapore	National Climate Change Committee NCCC			Y	10			
Sri Lanka	SLSEA	2 M\$	25	Y	165	R/L	1	11
Taiwan, China				Y				
Thailand	DEDE	100 M\$	1101	Y	136	R	11	
Vietnam	Energy Efficiency and conservation office	2 M\$	14	None		R/L	7	7

	National Energ	National Energy Efficiency Agency		Ministry Department f	linistry Department for energy efficiency		Number of regional/ local EE agencies		
Middle East	Name of the agency	Budget (MUS\$ or €)	Staff	(Yes or No)	Staff number	L for local/ R for regional	Regional agencies	Local agencies	
Iran	Iran Energy efficiency organization (IEEO SABA)								
Israël									
Jordan	NERC	0,7 M\$ (2009)	35	Y	2	L		4	
	Building and Energy Technologies, Institute for Scientific								
Kuwait	Research		20	None	20	L			
Lebanon	Lebanese Center for Energy Conservation	0,8 M\$	8	None	0				
Syria	National Energy Research Center NERC	2	80	None					
Yemen	None			None					

	National Energ	ıy Efficiency Ag	nnev	Ministry Department f	or energy	Number	of regional	local EE
Africa	Name of the agency	Budget (MUS\$ or €)	Staff	(Yes or No)	Staff number	L for local/ R for regional	Regional agencies	Local agencies
Algeria	APRUE	82,5 M\$ (2005)	47	Υ				
Botswana	Energy Efficiency	0,4 M\$ (2005)	3					
Cote d'Ivoire								
Egypt	None			Υ	10			
Ghana	Energy Foundation / Energy Commission		6	None				
Guinea								
Bissau								
Kenya	Kenya Association of manufacturers	0,25 M\$(2005)	5	Υ	3	L		5
Mali								
Mauritanie								
Morocco	CDER (ADEREE)	2 M€ (2009)	150	у		5	5	
	National Center for EE&C , University of							
Nigeria	Lagos	0,69 M\$		Yes	16			
Senegal	None			Υ	2			
South Africa	SANEDI	38 M\$ (2006)	4	Υ	4			
Tanzania								
Tunisia	ANME	66682 Million DT (2009)	142	Υ	20	R/L	6	1

targets on energy efficiency from official National

programmes or law

Europe	Name of the program/law	sector	nature of target	target value
Austria	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%
Belgium	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%
Belgium	CHP certificates (Flanders)	Final consumers	Energy savings (value)	0,58 TWh/year
Bulgaria	National Long Term Energy Efficiency Program, 2005-2015	Final consumers	Energy intensity reduction	-8%
Bulgaria	National Long Term Energy Efficiency Program, 2005-2016	Overall	Energy intensity reduction	-17%
Bulgaria	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%
Cyprus	National Energy Efficiency Action Plan	Final consumers		
Czech Rep			Energy savings (rate)	10%
•	State Energy Policy	Overall	Energy intensity reduction	3,22%
Czech Rep	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%
Denmark	National Energy Strategy	Overall	Energy consumption reduction	-4%
Denmark	National Energy Strategy	Final consumers	Energy savings (rate)	10%
Denmark	Strategy for energy reduction in buildings	New buildings	Energy efficiency improvement	75%
Denmark	Obligation of energy savings for energy compagnies (white certificates)	Final consumers	Energy savings (value)	0,12 TWh/year
Estonia	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%
Finland	National strategy for Climate and Energy	Final consumers	Energy consumption reduction	(same level than 2008)
Finland	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%
France	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%
France	National Energy Efficiency Action Plan	Final consumers	Energy intensity reduction	-2%/year
France		Final consumors	Energy intensity reduction	-2,5%/year
France	Energy law(2005-781)- Loi POPE	Final consumers Final consumers	Energy consumption reduction	0% (stabilization)
France	Obligation of energy savings for energy companies	Final consumers	Energy savings (value)	54 TWh
France	Grenelle de l'Environment 2008	New buildings	Minimum efficiency standards	15 kWh/m2/year
France	Grenelle de l'Environment 2008	Existing buildings	Thermal retroffiting	400 000 /year
France	Grenelle de l'Environment 2008	Public sector	Thermal retroffiting	120 M m2
France	EU draft regulation	Lighting	lamps/CFL	Ban
Germany	Coalition agreement	Overall	Energy intensity reduction	3%/year
Germany	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%

Europe	Name of the program/law	sector	nature of target	target value
Greece	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%
	Energy Saving and Energy Efficiency Action Programme 1999-	T THAT COTIGUITICIS	Energy intensity reduction	3,5%/year
Hungary	2010	Overall		,
Hungary	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%
Ireland	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%
Ireland	Energy White Paper	Final consumers	Energy savings (rate)	20%
les les est	Obligation of energy savings for energy compagnies (white	Titlar consumers	zneigy camige (rate)	
Ireland	certificates)	Final consumers	Energy savings (value)	0,24 TWh
Italy	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%
Italy	White Certificate	Final consumers	Energy savings (value)	3,5 Mtep/year
Italy	Energy Efficiency in Buildings Law and EE Appliances Incentives	New buildings	Energy savings (value)	56,8 TWh/year
Italy	Energy Efficiency in Buildings Law and EE Appliances Incentives	Existing buildings	Energy savings (value)	56,8 TWh/year
Latvia	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%
Lithuania		<u> </u>		
	National Energy Efficiency Action Plan  National Energy Strategy	Final consumers	Energy savings (rate) Energy intensity reduction	9% EU average
Lithuania		Overall	3, 4 4 , 4444	intensity
Malta	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%
Luxembourg	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%
Netherlands	Clean and Efficient" program	Overall	Energy savings (rate)	2%/year
Netherlands	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%
Delevel	National Energy Efficiency Action Plan		zneigy camige (rate)	9%
Poland		Final consumers	Energy savings (rate)	
Poland	Obligation of energy savings for energy compagnies (white certificates)	Final consumers	Energy savings (value)	
Portugal	Directive on energy end-use efficiency and energy services (NEEAP)	Overall	Energy savings (rate)	10%
Romania	National Strategy for Energy Efficiency (2004-2015)	Overall	Energy intensity reduction	40%
Romania	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	14%
Slovakia	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%
Slovenia	National Energy Efficiency Action Plan	Overall	Energy savings (rate)	9 %
Slovenia	National Energy Efficiency Action Plan	Public sector	Energy savings (rate)	18 %
Slovenia	Energy Act			

Europe	Name of the program/law	sector	nature of target	target value
Spain	Action Plan 2008-2012 (E4)	Overall	Energy savings (value)	87.9 Mtoe
Spain	Action Plan 2008-2012 (E4)	Residential	Energy savings (value)	7.9 Mtoe
Spain	Action Plan 2008-2012 (E4)	Industry	Energy savings (value)	17,3 Mtoe
Spain	Action Plan 2008-2012 (E4)	Transport	Energy savings (value)	30,3 Mtoe
Spain	Action Plan 2008-2012 (E4)	Residential	Energy savings (value)	1.7 Mtoe
Spain	Action Plan 2008-2012 (E4)	Public sector	Energy savings (value)	0.69 Mtoe
Spain	Action Plan 2008-2012 (E4)	Forestry	Energy savings (value)	1.4 Mtoe
Spain	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%
Sweden	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%
Sweden	Energy Bill	Final consumers	Energy consumption reduction	7%
Sweden	Energy Bill	Final consumers	Energy intensity reduction	20%
Sweden	Sweden environmental objectives	Residential	Energy consumption reduction	20%/50%
UK	Housing Act	Residential	Energy efficiency improvement	20%
UK	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	9%
UK	Obligation of energy savings for energy compagnies (white certificates)	Final consumers	na	
Croatia	National Energy Efficiency Action Plan	Final consumers	Energy savings (rate)	14%
Iceland				
Serbia	Energy Strategy Implementation Programme	Industry	Energy savings (rate)	15%
Norway				
Switzerland	SwissEnergy Programme	Overall	Energy consumption reduction	-10% for fuel
Switzerland	SwissEnergy Programme	Final consumers	Cap electricity demand increase	5%
Switzerland		Lighting	lamps/CFL	Ban
Turkey	Energy efficiency strategy (2004)	na	na	
Russia	Energy Strategy of the Russian Federation (2009)	Overall	Energy intensity reduction	-40%
Russia	Federal Law on Energy saving and energy efficiency improvement (2009)	Final consumers	Energy savings (rate)	15%
Russia	Federal program Energy Efficient Economy (project)	Overall	Energy savings (rate)	

America	Name of the program/law	sector	nature of target	target value
Argentina	Plan Nacional PRONUREE (Decreto Nº 140/2007)	Industry	Energy savings (rate)	5,4%
Argentina	Plan Nacional PRONUREE (Decreto Nº 140/2007)	Residential	Energy savings (rate)	10%
Argentina	Plan Nacional PRONUREE (Decreto N	Service sector	Energy savings (rate)	12%
Argentina	Plan Nacional PRONUREE (Decreto Nº 140/2007)	Public sector	Energy savings (rate)	10%
Argentina	Plan Nacional PRONUREE (Decreto Nº 140/2007)	Lighting	Electricity savings (value)	1500 MW
Argentina	Plan Nacional PRONUREE (Decreto Nº 140/2007)	Lighting	lamps/CFL	25 M
Bolivia	Programa nacional de eficincia energetica (2008) PNEE			
Brazil	Long Term Perspective 2030 developped by Brazilian Energy Planning EPE	Overall	Electricity savings (value)	109 TWh
Brazil	National Climate Change Plan (PNMC)	Overall	Electricity consumption reduction	-10%
Canada	Council of the province	Overall	Energy efficiency improvement	20%
Chile	National Energy Efficiency Programme (PPEE) (under preparation)			
Colombia	National Programme for the Rational Use of Energy and Energy Efficiency PROURE), 2001			
Costa Rica	National Programme of Energy Conservation, Pronace			
El Salvador				
Mexico	Programma Sectorial de Energia 2008-2012	Overall	Electricity savings (rate)	16% (43 TWh)
Mexico	Programma Sectorial de Energia 2008-2012	Solar water heaters	Solar water heaters	1,8 Mm2 installed
Paraguay	None			
Peru	Law of the Promotion of the Efficient Use of Energy (2000)			
Trinidad &				
Tobago				
Uruguay	National Energy Strategic Priorities (including Energy Efficiency in every economic field as one of the four priorities).	Overall	Energy savings (rate)	
Uruguay	Creation of the Energy Efficiency Fund: (USD 2,475,000 acting as a guarantee fund for loans given by commercial banks (December 12th 2008). Creation of the Energy Efficiency and Saving Fund (Law 18.597, September 21st 2009).	overall	Energy savings (value)	7,000 toe and 14,577 tons of CO <sub>2</sub>
Uruguay	Energy Plan for Public Sector (Decrete 527/008, October 29th 2008).	Public sector	lamps/CFL	Ban
Uruguay	Energy Plan for Public Sector (Decrete 527/008, October 29th 2008).	]	lamps/CFL	Ban
Uruguay	Energy Plan for Public Sector (Decrete 527/008, October 29th 2008).	Public sector	Energy savings (rate)	Minimum 5 % savings
USA	National Energy Conservation Policy Act	Final consumers	na	
USA	Energy Policy Act of 2005	Final consumers	na	
USA	National Energy Plan (2001)	Final consumers	na	
Venezuela	National Programme of Electric Efficiency	Final consumers	na	

Asia Pacific	Name of the program/law	sector	nature of target	target value
Australia	Home Insulation Programme : a key part of the Energy Efficient Hor	Residential	na	
Australia	National strategy on Energy efficiency (NSEE); Energy efficience	Final consumers	Energy efficiency improvement	
Australia	Energy Efficiency in Government Operations (EEGO)	Public sector	Energy consumption reduction	
Australia	New South Wales Energy savings Scheme	Final consumers	Energy savings (rate)	4% of the electricity sales
China	11 <sup>th</sup> Plan (2006-2010)	Overall	Energy intensity reduction	-20%
China	Energy Conservation Regulation for Civil buildings	Public sector	na	
China	Medium and long term Plan of Energy Conservation	Final consumers	Energy conservation	
China	1000-Enterprise implementation Plan of Energy Conservation (	Industry	Energy savings (value)	100 Mtce
China	Policies for the Develpment of Iron and Steel industry (2005)	Industry	Energy intensity reduction	-8%
Hong Kong (China)	APEC Sydney Joint Declaration	Overall	Energy intensity reduction	25%
India	Energy Conservation Act 2001 NAPCC Mission Enhance Energy Efficiency	Overall	Energy savings (value)	> 23 Mtoe
India	Energy Conservation Act 2001 NAPCC Mission Enhance Energy Efficiency	Overall	Electricity savings (value)	19 000 MW
India	Performance, Achieve & Trade (PAT)	Industry	Energy efficiency improvement	1.5 to 7.5 %/company
India	Energy Conservation Building Code (ECBC) + Building Star Rating	Service sector	Energy consumption reduction	1,7 TWh/year (500 MW)
India	Bachat Lamp Yojana	Lighting	lamps/CFL	400 M
India	Star rating for appliances, appliances standard	Residential	Energy savings (value)	18 TWh/year (3000 MW)
Indonesia	Presidential Regulation No. 5/2006 on National Energy Policy	Overall	Energy elasticity to GDP	<1
Japan	Law on rational use of Energy (1979, revised in 2005)			
Republic of Korea	The 4th Energy Use Plans by National Energy savings Commitee	Overall	Energy efficiency improvement	11,30%
Malaysia				
Mongolia	National Renewable Energy Programme (2005-2020)	Power sector	na	10% reduction of losses in overall energy system
Myanmar				
New Zealand	National Energy Efficiency and conservation Strategy	Overall	Energy savings (value)	30 PJ/year
New Zealand	Energywise Transport	Transport	Energy savings (value)	20 PJ/year
New Zealand		Industry	Energy savings (value)	2,4 PJ /year
New Zealand	Energywise Industry		na	10 PJ /year
New Zealand	Energywise Homes	New buildings	Energy savings (value)	1.55 PJ
New Zealand	Energywise Homes	Existing buildings	Energy savings (value)	1.9 PJ

Middle East	Name of the program/law	sector	nature of target	target value
Philippines	Republic Act 7638	Overall	Energy savings (value)	150 Mtoe
Philippines				91 million barrel fuel oil equivalent
	National Energy Efficiency and Conservation Program	Overall	Energy savings (value)	or 1.3 Mtoe/year
Singapore				
Sri-Lanka	National energy policy & strategies	Overall	Energy savings (rate)	-20%
Sri-Lanka	Action plan of the Sustainable Energy Authority	Residential	lamps/CFL	50%
Taiwan, China		Overall	Energy intensity reduction	20%
Taiwan, China	Energy efficiency and conservation programme	Transport	Energy efficiency	25%
Taiwan, China	Energy efficiency and conservation programme	Public sector	Energy consumption reduction	7%
Thailand	Energy Efficiency Strategy under the national energy policy	Overall	Energy savings (rate)	20 %
Viet Nam			Energy savings (rate)	3-5%
Viet Nam	National energy efficiency programme	Overall	Energy savings (rate)	5-8%
Iran	Energy Management Programme	Overall	Energy savings (value)	2,7 Mtoe
Israël		Overall	Electricity savings (rate)	20%
Jordan	National Energy Strategy	Overall	Energy intensity reduction	20%
Syria	Energy efficiency programme	Overall	Electricity savings (rate)	10%
Lebanon				
Yemen				

Africa	Name of the program/law	sector	nature of target	target value
Algeria	National Program of Energy Conservation	Overall	Energy savings (value)	897 062 toe
Algeria	National Program of Energy Conservation	Lighting	lamps/CFL	1 million
Algeria	National Program of Energy Conservation	Service sector	na	200 000 lamps
Botswana				
Cote d'Ivoire				
Egypt	National Plan of Energy Efficiency of the Supreme Council of Energy in public sector	Public sector	Energy savings (rate)	20% (10 Mtoe)
Egypt	Energy Efficiency Program in Residential Sector (lighting & S&L for Home Appliances)	Lighting	Energy savings (rate)	
Ghana				
Guinea Bissau				
Kenya				
Mali				
Mauritanie				
Morocco	National Energie Efficiency Plan (2020)	Final consumers	Energy savings (rate)	12 to 15%
Nigeria				
Senegal	Programme de réduction des coûts de Senelec	Power sector	Energy savings (rate)	3%
South Africa	Energy efficiency Strategy, Energy Act n°34 (2008)	Overall	Energy consumption reduction	15 % or 433 PJ
Tanzania				
Tunisia	Four Year Energy Conservation 2008-2011	Overall	Energy savings (value)	3.2 Mtoe
Tunisia	Four Year Energy Conservation 2008-2011	Overall	Energy intensity reduction	-3%/year
Tunisia	Four Year Energy Conservation 2008-2011	New buildings	Energy efficiency improvement	38 000 housing
Tunisia	Four Year Energy Conservation 2008-2011	Existing buildings	Thermal retroffiting	21 500 housing
Tunisia	Four Year Energy Conservation 2008-2011	Lighting	lamps/CFL	2 million/year
Tunisia	Four Year Energy Conservation 2008-2011	Solar water heaters	Solar water heaters	480 000 m2

#### **Financial incentives**

**EA** Subsidies for energy audits (% of subsidy)

S Subsidies for energy efficiency investments / equipment (% of subsidy)

SL Soft loan for energy efficiency investment / equipment (soft loan = subsidised loan at a rate lower than the market rate)

No measure

EUROPE		Energy	audits	
Europe	Commercial / Public Buildings	Residential Buildings (dwellings)	Industry	Transport companies
Austria	EA		EA	
Belgium	EA		EA	
Bulgaria				
Cyprus	EA (up to	EA (up to		
Czech Republic	30%)	30%)	None	None
Denmark	None	None	None	None
Estonia	NOTE	INOTIE	NOTIE	INOTIE
Finland	EA (40-50%)	EA (max. 40%)	EA (40- 50%)	EA (40-50%)
France	EA (50-70%)	None	EA (50- 70%)	EA (50-70%)
Germany		EA(max. 50%)	EA(max. 80%)	
Greece				
Hungary				
Ireland		EA		
Italy				
Latvia	None	None	None	None
Lithuania	EA	None	None	None
Luxembourg				
Malta	EA		EA	
Netherlands				
Poland	None	None	None	None
Portugal	EA	EA	EA	EA
Romania	EA - 50%	None	None	None
Slovakia				
Slovenia	EA (50%)	EA (50%)	EA (50%)	None
Spain	EA	EA	EA (75%)	EA
Sweden			EA (50%)	
UK	EA	EA	EA	EA
Norway			EA	
Croatia	EA (50%)	None	EA (50%)	None
Iceland	(==)		. (/-/	
Serbia	None	None	None	None
Montenegro				
Switzerland	None	None	None	None
Turkey			EA	
Russia				
	I.	1	I.	1

#### **France**

Three levels of subsidy (from 50% to 70%) depending on the audit type (light, detailed)

#### Austria

In Austria there is no obligation to implement energy audits, except for public buildings in several provinces.

Industrial/commercial operations often implement energy audits in a voluntary way, investment subsidies will be granted.

Investment subsidies for energy audits can deviate depending on the provinces.

#### **Czech Republic**

In the public sector, audits were obligatory if energy consumption was above 1,500 GJ per year.

For private facilities, audits were mandatory if energy consumption is above 35,000 GJ per year.

It was mandatory to elaborate energy audit to the end of the year 2005.

It was possible to gain subsidy for elaboration of energy audits in the framework of annual Government programme part A – subprogram I.2 Energy audits during period 2000 - 2005. The Subsidy for the

elaboration of energy audit could cover up to 30% of the total costs, up to a maximum of 500 000 CZK for each action. CEA is responsible for implementation of Government programme part A (Ministry of Industry and Trade). It is possible to co-finance energy audits from CF in the framework of preparation of energy saving project request to Operational Programme Environment. It is eligible cost.

Italy

Buildings Enery audits regulation and subsidies are implemented at regional and local level.

Ireland

Energy audits in households, as part of an improvement grant scheme 'Home Energy Savings Scheme'

run by SEI. Improvement measures must accompany the grant to receive payment.

Finland

50% for municipals and small and medium sized companies within voluntary agreement scheme, 40%

for the others, Ministry of Employment and the Economy

2) does not include detached and semi-detached houses, Ministry of the Environment

3) for buildings, Ministry of Emplyment and the Economy

**Switzerland** 

Some municipally-owned utilities may offer discount audits.

UK

Energy Audits - varying in complexity depending on target audience - are available free of charge

through the Energy Savings Trust and Carbon Trust

Serbia

From 2007 energy audits in industry and service sector subsidised up to 50%; soft loans up to 80% of total investment for industry, services and households (interest rate=EUROBOR+ (0.5-1%); tax

deduction on annual income should be applied

Spain

Subsidies for audits related to energy efficiency improvements in outdoor lighting installations in public

services (Action Plan 2008-2012)

Sweden

Subsisides for energy audits for companies which consume more than 500 MWh/year (amount limited at

30 000 SEK)

Norway

Audit can be a part of a subsidy project

				Subsidy	(S) or Soft Loar	n (SL)				
_	Residential Buildings (dwellings)	Low income households	Industry	Transport companies	Efficient/ low CO2 emission cars	Efficient electrical appliances	CFL (Compact Fluorescent Lamps)	Solar water heaters	Wood stove	Electric motors
Europe							Lamps)			
Austria	S, SL	S, SL	S, SL	S	S			S, SL		
Belgium	S									
Bulgaria	SL									
Cyprus										
Czech Republic	S,SL (50%)	S (50%)	S (40%)		None	None	None	S		
Denmark	None	None	None	None	None	None	None	None	None	None
Estonia										
Finland	S (10-15%)	None	S (15-20- 40%)	S(15-40%)	None	None	None	None	None	None
France	S+SL (40%)	SL	S(40%)	S(20%)	S			S (40%)	None	None
Germany	SL S		S(30%), SL(75%)					, ,		
Greece			S	S						
Hungary	S(33%),SL(30 %)		SL(5%)	SL(5%)		tax cut planned	info camp.			
Ireland	S(30%)	S(~70%)	S (35%)	(-,-,	S (~10%) (electric & hybrids only)			S (20%)	S (20%)	
Italy	0(0070)	3( 1070)	(3070)	S	S			S	0 (2070)	
Latvia	None	None	None	None	None	None	None	None	None	None
Lithuania	S	S	None	THORIC	None	None	None	None	None	None
Luxembourg	3	3	None		NOTIC	None	None	None	INOTIC	INOTIC
Malta	S		S, SL	S			S	s		
Netherlands	3		S	3			3	3		
Netherlands	SL with		3							
Poland	premium (16%)	None	None	None	None	None	None	None	None	None
Portugal	SL		S	S	S	S	S	S		S
Romania	S-80%	None	None	None	None	None	None	S	S	None
Slovakia			S(75%), SL							
Slovenia	SL, S (25%)	None	SL		S	S		S		
Spain	S(7%), SL		S(22%),SL		S	S	S	S		
Sweden	S		S					S		
UK	None	S	SL		None	None	None	None	None	None
			S (max							
Norway			20%)	S				S	S	
Croatia	S, SL (40%)	None	S, SL (40%)	ĺ						
Iceland	, , , , , , , ,		SL							
Serbia	SL	None	SL	SL	None	None	SL	SL	None	None
Montenegro				1	1					
Switzerland	None	None	None	None	None	None	None	None	None	None
Turkey			S		1.30.10		1.00			
Russia	SL		Ĭ							
Eranco		<del></del>	<del>!</del>		<del></del>	role (embeight :	00000			

#### France

For cars, bonus malus depending on CO2 emissions levels (subsidy : 2600 € < 60gCO2/km, 1000 € < 61-100 gCO2, 700 € < 101-120 g , 200 € 121-130 g and tax : 200 € > 161-165 g, 750 € > 166-200g, 1600 € > 201-250g , 2600 € > 250 gCO2)

#### Austria

Subsidies: Up to 30% of investment costs for building reorganization or investment in renewable energies, subsidies for energy research, energy concepts etc. Households: Investment subsidies for energy saving building, for solar/biomass space heating/water heating etc.

All sectors: Promotion for cars using natural gas

#### Soft loans:

Households: Interestless loans for energy saving building, for solar/biomass space heating/water heating etc., interestless loans for energy-saving electrical appliances
Undertaking: interest subsidy for energy-saving appliances

#### Czech Republic

It exist several energy saving projects in the framework of Operational programmes of Ministry of Environment and Ministry of Industry and Trade co-financed from SF and CF EU for period 2007-2013. Next there is the Green Light for Savings subsidy programme for Czech households, which will start in April 2009. This programme will be announced for period 2009 - 2012. The Subsidies will be financed from the Sale of emission credits (AAUs). There are different rules concerning share subsidy on eligible cost hence average rate of subsidy is very inaccurate estimation.

Solar water heaters and the wood stove are supported mainly in the framework of government programme of Ministry of Environment. It was supported 1 500 solar water heaters and 475 wood stove measures in 2008.

There will be supported these measures in the framework of Green Light for Savings subsidy programme.

**Denmark** Private utility companies in some cases offers subsidies and soft loans to their customers

**Italy** Budget Law 2007 establish financial package: € 150 ML for the three year period (2007-2009) for the

installation of LPG and methane devices in the Euro 0 and Euro 1 vehicles stock plus a budget for

financing eco - incentives for scrapping of vehicles.

Ecobonus ' Sea Motorway' : € 240Ml for the years 2007-2010: subsidies are granted to road haulage

companies which make use of existing or new maritime routes instead of roads

Ireland Subsidies in commercial/public building and industry: Pilot campaign with limited numbers. Support for

Exemplar Energy Efficiency projects grants scheme run by SEI.

10% subsidies for electric and hybrid vehicles (Fixed sum off vehicle registration tax up to €2500)

Finland Normal subsidy range 15-20% for conventional energy conservation investments (only for companies and

communities joined to voluntary agreement scheme), max. 40% for new technology promoting energy

savings, Ministry of Employment and the Economy

2) does not include detached and semi-detached houses, Ministry of the Environment

Lithuania According to the Programme for Modernization of Multifamily Buildings state support depends on

implemented energy efficiency measures (15%-30%-50%), families with low income are also supported by

the state.

**Switzerland** Some cantonal banks offer lower-interest mortgage rates for high-efficiency buildings.

**UK** Interest free loans are available to SMES for investment in energy efficiency technologies via the Carbon

Trusts. Grants are available to those in fuel poverty to improve the energy efficiency of their homes under

the Government's Warm Front Scheme

We do not have Government subsidies though Enhanced Capital Allowances apply to a range of prescribed energy efficiency technologies. Under the Carbon Emissions Reduction Target supplier smay offer subsidies on effcienct electrical equipment and lamps etc in order to help meet their energy-saving

targets but there is no obligation on them to do so.

Malta Amount of subsidies: 15.75% for electric vehicles (up to US\$ 1425), 66% for solar water heaters (up to

€465), 25% for roof thermal insulation (up to €300),

50% for PV systems (up to €3000), 20% for wind systems (up to €233)

Iceland Up to 50% of cost waived if unsuccessful

Russia Tax deduction max US\$1450 per person per year for households; in services State guarantees available

for energy efficiency projects financed by international financial organizations in RF regions

**Portugal** % of subsidies : 6,7% for commercial / public buildings and industry , 16,7% for residential, 3,3% for

ransport

Spain
Plan VIVE/Plan 200 E for efficient / low emission cars; Plan RENOVE for efficient electrical appliances

Norway

Subsidies in industry: max 20% of project cost

Subsidies for wood stoves: up to 20% for investemenst in pellets stoves (max NOK 4000)

Subsidies for solar water heaters: <20% (max NOK 4000)

America		Energy	audits	
Country	Commercial / Public Buildings	Residential Buildings (dwellings)	Industry	Transport companies
Argentina	None	None	None	None
Bolivia				
Brazil	None	None	None	None
Canada	EA	EA	EA	None
Chile			EA	
Colombia	None	None	None	None
Costa Rica				
El Salvador				
Mexico				
Paraguay				
Peru				
Trinidad &				
Tobaggo				
Uruguay	EA	EA	EA	None
USA			EA	
Venezuela				

#### Canada

No federal subsidy for commercial energy audits, but subsidies in place in select provinces/territories. For example, New Brunswick's Energy Smart Commercial Buildings Retrofit Program provides financial incentives of up to \$3,000 towards an evaluation to determine the potential for energy efficiency upgrades in a commercial building.

- 2) No federal subsidy, but provincial/territorial subsidies include Nova Scotia's reimbursement of the cost of the initial home energy evaluation for low-modest households.
- 3) No federal subsidy, but provincial/territorial subsidies includes Efficiency New Brunswick will offer up to 50% of Eligible Costs incurred, up to a maximum payment of \$250,000.

#### Chile

70% up to US\$ 10 000

#### Uruguay

Creation of the Energy Efficiency Fund: financial line designed and set-up in order to encourage studies and investments in energy efficiency, the capital of the fund adds up to USD 2,475,000 acting as a guarantee fund for loans given by commercial banks (December 12th 2008).

Grant Agreement between Uruguay and the International Bank for Reconstruction and Development (IBRD) (Resolution Agust 11th 2004).

				Subsidy (	S) or Soft Loar	n (SL)				
Country	Residential Buildings (dwellings)	Low income households	Industry	Transport companies	Efficient/ low CO2 emission cars	Efficient	CFL (Compact Fluorescent Lamps)	Solar water heaters	Wood stove	Electric motors
Argentina	None	None	None	None	None	S	S	None		
Bolivia										
Brazil	SL	SL	SL		None	SL	SL	SL		
Canada			S		S	S	None	S		
Chile			SL							
Colombia	None	None	SL	None	S (16%)	S (16%)	S (16%)	S		
Costa Rica										
El Salvador										
Mexico										
Paraguay										
Peru										
Trinidad & Tobaggo										
Uruguay	SL	None	SL	None	None	None	S (only for 2.3 million CFL): 100%	SL	None	None
USA	S/SL	SL	SL			S				
Venezuela										

Brazil

There are tax reduction on energy efficient appliances or investments, using a specific funding (Financial Support Facility for Energy Efficiency Projects – PROESCO) in the Brazilian Development&Social Bank (BNDES). In shared risk operations, BNDES may bear up to 80% of the operation's risk, and the accredited financial institutions must bear at least 20%. In this case, the beneficiary will be charged a special spread due to risk assumption, of 3% p.a. The accredited financial institutions must require as a collateral for the financing arrangements the guaranty from the majority shareholders of the ESCO and the pledge of its credit rights arising from ESCO's service agreement with its client

#### Canada

Under the ecoENERGY Retrofit - Small and Medium Organizations program, qualifying investments receive up to \$50,000 per project and \$250,000 per organization. Related and additional incentives exist at the provincial and territorial levels.

- 2) The maximum grant an individual may receive for a home is \$5,000. The amount of the incentive depends on the number and type of eligible improvements ranging from ceiling insulation to doors/windows that a homeowner undertakes. In the case of Multiple Unit Residential Buildings, the grant receivable is up to \$5,000 per dwelling unit (to a maximum \$500,000 for owners with multiple properties). This grant is matched by most provinces and territories, such that homeowners in qualifying provinces may be eligible for up to \$10,000 in rebates.
- 3) Treatment of low income households varies by province. In some cases, provincial agencies undertake the energy efficiency investments on behalf of low income applicants and the federal/provincial grant is then re-assigned to that agency.
- 4) Under the ecoENERGY Retrofit Small and Medium Organizations program, a financial incentive of up to \$50,000 per application and \$250,000 per corporate entity to help small- and medium-sized industrial facilities implement energy-saving projects. Related and additional incentives exist at the provincial and territorial levels.

No federal subsidy, but examples of provincial/territorial subsidies include Quebec refundable tax credit of up to \$2,000 for acquisition or lease of green vehicles and Ontario incentive of between \$4,000 and \$10,000 for plug-in hybrid and battery electric vehicles purchased after July 1, 2010.

- 2) Under ecoENERGY Retrofit Homes program, residential homeowners receive grants for heating systems. Average grant depends on equipment being replaced and efficacy of model being installed, but ranges from \$375-790. Cooling systems eligible for \$250 grant, ventilation \$375 and gas hot water heaters \$375
- 3) For installation of solar domestic hot water system with solar collectors that meet standard and provide at least 6000MJ annually, the coENERGY Retrofit Homes program offers \$1250. The ecoENERGY for Renewable Heat program offers up to \$400,000 for the installation of water heating solar collectors on commercial, institutional and industrial buildings.

#### Colombia

Tax exemption equivalent of 125% investment budget

Environment Ministry validate VAT exemption for imported equipment

#### USA

Soft loans in industry (Loan garantee program)

Soft loans in households: Energy Efficient Mortgages EEM (http://www.resnet.us/ratings/mortgages); for households, EEM helps homebuyers and homeowners to finance the cost of adding energy efficiency features to new or existing housing as part of their home purchase or refinancing mortgages. Subsidies in households: Weatherization Assistance Program (provides subsidized cost-effective energy efficiency improvements to low-income households through the weatherization of homes). In addition, the Low Income Home Energy Assistance Program (LIHEAP) provides grants to States to help low-income consumers in meeting their heating/cooling needs.

Subsidies in households concern also new energy efficient appliances: a rebate up to 250 \$ per appliance can be got by consumers to replace existing appliances (appliances eligible are Energy-Star rated: boilers, central AC, washing machine, dishwasher, freeers, furnaces, heat pumps, refrigerators, room air conditioner and water heaters)

#### Chile

up to US\$5m for investments and US\$1m for environment

#### Uruguay

Creation of the Energy Efficiency Fund: financial line designed and set-up in order to encourage studies and investments in energy efficiency, the capital of the fund adds up to USD 2,475,000 acting as a guarantee fund for loans given by commercial banks (December 12th 2008).

Grant Agreement between Uruguay and the International Bank for Reconstruction and Development (IBRD) (Resolution Agust 11th 2004).

The subsidy for CFL was part of a specific campaign. The CFL that are sell in the market do not have any subsidy

Asia		Energy audits									
Country	Commercial / Public Buildings	Residential Buildings (dwellings)	Industry	Transport companies							
Australia											
China											
(China)											
India	EA (100%)	None	EA (100%)	None							
Indonesia	EA (100%)	None	EA (100%)	None							
Japan	EA (100%)	EA (100%)	EA (100%)	EA (100%)							
Korea	None		EA (70%)								
Malaysia			EA(50%)								
Mongolia											
Myanmar											
New Zealand	EA	None	EA (100%)	None							
Philippines	EA		EA	EA							
Singapore	EA(50%)		EA(50%)								
Sri Lanka	None	None	None	None							
Taiwan, China											
Thailand	EA (50-100%)	EA (50-100%)	EA (50-								
Vietnam	EA (100%)	EA (100%)	EA (100%)	EA (100%)							

India Demonstation projects only

Japan ECCJ conducts free charge audit for public bldgs. and factories total 1200 per year. Audits for residential and

ship are far smaller scale.

**New Zealand** Grants for large energy-using businesses \$0.6 million of grants allocated to fund audits to the AUS/NZ Audit Standard, where appropriate, resulting in at least \$4 million of potential energy savings identified by 30 June

2010. Grants for energy intensive SME s and industry associations - establishing a nation-wide programme to provide audits, advice and training for energy intensive SMEs to EECA's internal quality criteria by 30 June

2010

**Thailand** Energy Audits used to be conducted as a compulsory basis for designated buildings and factories with a

max. subsidy of 50%. But now it has been done on voluntary basis with the technical and financial assistance

from the government agencies. Max. subsidy can be up to 100%.

Vietnam The number of paticipation and subsidies is limited depend on the budget of national program on enery

efficiency and conservation

singapore

Up to US\$ 116 000 per facility/building

				Subsidy (	S) or Soft Loar	ı (SL)				
Country	Residential Buildings (dwellings)	Low income households	Industry	Transport companies	Efficient/ low CO2 emission cars	Efficient electrical appliances	CFL (Compact Fluorescent Lamps)	Solar water heaters	Wood stove	Electric motors
Australia	S/SL		S			S		S/SL		
China			S/SL		S	S	S			
Hong Kong										
India	None	None	None	None	None	None	S			None
Indonesia	None	None	None	None	None	None	None	None	None	None
Japan	S (33%), SL	None	S (33%), SL		S	S	S	S		
Republic of Korea	S, SL	None	SL (80%), S							
Malaysia			S							
Mongolia										
Myanmar										
New Zealand	S/SL (33-60%)	S/SL (60%)	S (40-75%)		None	None	S (50-80%)	S		
Philippines										
Singapore										
Sri Lanka	None	None	S(1,5%)	None	None	None	None	None	None	None
Taiwan, China	S		S							
Thailand	S		SL	SL	None	None	None	None	None	None
Vietnam	S(30%)	S(30%)	S(30%)		None	None	S	None	None	None

#### Australia

Subsidies: Householders, including owner-occupiers, landlords and tenants can access either the insulation assistance of up to AUD 1,200 under the Home Insulation Program.

The Green Loans programme was announced by the Australian Government in May 2008 as part of its Climate Change Budget. The programme combines low-interest loans of up to AUD 10 000, a green reward card to the value of AUD 50, as well as detailed household sustainability assessments.

The loans will help homeowners install solar, water saving and energy-efficient systems and products. Solar Hot Water Rebate scheme offers a rebate of up to AUD 1600 for the installation of a solar hot water heater, or AUD 1000 for the installation of a heat pump hot water system, that replaces electric hot water storage systems.

#### China

4 types of economic tools to promote energy efficiency and conservation: finacial, tax pricing and government procurement. Financial tools include direct funding of energy efficiency projects in industry and buildings, subsidized loans and loan and credit guarantees.

In 2009, a project named "People favoring Energy-Conserving Products" popularizes energy efficient products with financial subsidies; eligible products include high-efficient lighting products, energy conserving cars and new energy cars

#### India

Subsidies for CFLs replacement are provided bu carbon crfedits relying on CDM projects (Bachat lamp Yojana programme)

#### Japan

Many measures are implemented according to their purposes.

#### Korea

In case of electric motors, installation subsidy is 240 USD/1kW saved when consumers newly installing or switching to high efficiency motor.

#### **New Zealand**

A. The technology grants your business can apply for are:

Grants - up to 40% of the total project cost, up to a maximum of \$100,000

Scoping study grants - up to a maximum 75% of the study costs (up to \$10,000).

B. Insulation & Clean heating

-All eligible houses 33% of the total cost of ceiling and under floor insulation installation up to \$1300 (incl GST). Homes with under floor and ceiling insulation qualify for a Clean Heat Grant of \$500 (incl GST) for a clean heating appliance (heat pump, LPG flued heater, approved wood pellet burner)

-Homeowners who hold Community Services Cards (low income households) receive 60% of the total cost of under floor and ceiling insulation. Homes with this insulation are eligible for a Clean Heat Grant of \$1200 (incl GST) for a clean heating appliance (listed above)

-Landlords with tenants who hold Community Services Cards receive 60% of the total cost of under floor and ceiling installation for tenanted proprietary and Clean Heat Grant of \$500 (incl GST) (same provisions apply as above)

\$1000 grant for Solar Water Heater or Heat Pump Water Heater. Estimated cost of Solar water heaters is between \$4000-\$8000. Estimated cost of Heat Pump Water Heaters is between \$5000-\$7000

The NZ Electricity Commission is currently collaborating with a number of bulb manufacturers and distributors (as a result of the November 2008 and March 2009 Request for Proposals (RFPs) for Efficient Lighting CFL Subsidy Programmes) to offer a range of subsidised efficient lighting products. Subsidies are also offered for electric motors.

#### **Thailand**

Soft loans industry and commercial/public buildings with interest less than 4%; in households subsidies not more than 30,000 baht

#### Vietnam

The number of paticipations is limited depend on the budget of national program on energy efficiency and conservation

<b>Middle East</b>	Energy audits								
Country	Commercial / Public Buildings	Residential Buildings (dwellings)	Industry	Transport companies					
Iran									
Israël									
Jordan	EA 80%	None	EA 80%	None					
Lebanon	EA (70%)	None	EA (70%)	None					
Syria	None	None	None	None					
Yemen	EA (100%) proposed	None	EA (100%) proposed	None					

Yemen

Incentives are only proposed

				Subsidy (S	S) or Soft Loan	(SL)				
Country	Residential Buildings (dwellings)	Low income households	Industry	Transport companies	Efficient/ low CO2 emission cars	Efficient electrical appliances	CFL (Compact Fluorescent Lamps)	Solar water heaters	Wood stove	Electric motors
Iran			S, SL							
Israël										
Jordan	None	None	S 50%	None	None	None	50%	50%	None	50%
Lebanon	None	None	SL		None	None	None	None	None	None
Syria								S		
	S/SL 50 %	S/SL 50 %								
Yemen	(proposed)	(proposed)	None	None	None	None	None	None	None	None

Lebanon

Soft Loan with KAFALAT (National Institution) under implementation

Yemen

Incentives are only proposed

Africa		Energy	audits	
Country	Commercial / Residential Buildings (dwellings)		Industry	Transport companies
Country			EA (20-	
Algeria	EA (20-70%)	EA (20-70%)	,	EA (20-70%)
Botswana				
Cote d'Ivoire				
Egypt	EA(30%)	None	EA (90%)	None
Ethiopia	None	None	None	None
Ghana	None	None	None	None
Guinea Bissau				
Kenya				
Mali				
Mauritanie				
Morocco				
Nigeria	None	None	None	None
Senegal	None	None	None	None
South Africa	None	None	EA (15%)	None
Tanzania				
Tunisia	EA (70%)	EA (70%)	EA (70%)	EA (70%)

Algeria Subsidies are between 20 to 70% according to the projects and sectors

South Industry is the biggest consumer of energy in the country and therefore the place to start with incentives. The Department of Trade and Industry through the National Cleaner Production Centre is the implementer.

**Egypt** 90% subsidy for energy audits in the industrial sector provided by the Industrial Modernization Center of the Ministry of Industry and Trade

30% subsidy for energy audits provided by the energy efficiency project in commercial/public buildings

				Subsidy (S	S) or Soft Loan	(SL)				
Country	Residential Buildings (dwellings)	Low income households	Industry	Transport companies	Efficient/ low CO2 emission cars	Efficient electrical appliances	CFL (Compact Fluorescent Lamps)	Solar water heaters	Wood stove	Electric motors
Algeria	S	None	S	S	None	s	S	S		
Botswana										
Cote d'Ivoire										
Egypt	None	None	SL	SL	None	None	S	None	None	None
Ethiopia	S +SL	SL	S			None	None	S		
Ghana	None	None	SL		None	None	None	None		
Guinea Bissau										
Kenya										
Mali										
Mauritanie										
Morocco										
Nigeria	None	None	None	None	None	None	None	None	None	None
Senegal	None	None	None	None	None	None	None	None	None	None
South Africa	None	None	S (15%)		None	None	S (100%)	S		
Tanzania										
Tunisia	S (20%)	S (20%)	S (20%)	S	None	None	S	S		

Ethiopia

Not yet fully operational at the moment.

The rate is to be clarified after the Energy law (PLANED)

South Africa

Due to the energy shortfall in the country Government has to lead by example and has made a small amount of funding available to ensure energy efficiency in public buildings. Tax incentives are proposed for Industrial energy efficiency - not implemented yet.

CFL's are being handed out for free due to the shortage of supply.

**Egypt** 

Subsidy for CFL provided by the Minbistry of Electricity and Energy to sell 6 Million CFLs for half of their

price

#### Fiscal measures

TRE Tax reduction for energy/CO2 efficient equipment/investments (TRE), split in 4 categories: import tax (IT), Purchase tax (PT), Annual Tax (AT) or VAT (Value added Tax)

TRI Tax on inefficient cars or electrical appliances (TRI)

TRT Tax reduction on energy tax in exchange of energy efficient investment (TRT): F for fuel, E for Electricity

ACCELERATED ACCELERA

UROPE		Т	ax reduction					
	Appliance	Cars	Lamps	Labor cost	solar water heater	Tax credit		
Country							Industry	Tertiary
		TRE(PT),						
Austria		TRI				TC		
Belgium								
Bulgaria								
Cyprus		TRI						
Czech Republic		TRI		TRE(VAT)				
		TRE (PT), TRE						
Denmark		(AT)					TRT (F,E)	
Estonia								
Finland		TRE (PT)		TRE (VAT)		TC		
France		TRE (PT), TRI		TRE (VAT)	TC	TC	AD	AD
Germany		TRE (PT), TRI						
Greece								
Hungary		TRE (PT)						
Ireland		TRI					AD	AD
Italy	TRE(PT)	110		TRE(VAT)	TC	TC	7.0	TRE
Latvia	11112(1 1)	TRI		INE(VAI)		10		111.
Lithuania		110						
Luxembourg								
Malta		TRE (PT)						
Marta		TITE (I I)						
Netherlands		TRI						
Poland		TRI						
David and		TO					TDT / A D / TD F	
Portugal		TRI					TRT/AD/TRE	
Romania		TDE(AT)						
Slovakia		TRE(AT)						
		TRE (PT),						
Slovenia		TRI			TC		TDE	
Spain		TRE (PT)			TC	T.C	TRE	1
Sweden		TRE(AT)		TDE		TC	TRT(E)	
UK		TRE (PT), TRI		TRE (VAT)			TRT (F,E)	
Norway		TRE (PT)						
Croatia								
Iceland		TDE (IT)				-		1
Serbia		TRE (IT)					AD	
Montenegro								
Switzerland		TRE (PT)				TC	TRT	1
Turkey								
Russia France Tax cre	edit for roof & wa							

Tax credit for roof & wall thermal insulation (25%), double glazing (15%), condensing boilers (15%), solar & wind water heating (50%), heat pumps (50%), geothermal pumps (40%); VAT reduction on labour costs from 5,5% vs 19,6% for restoring works, transformation works

Austria

Households: Tax deduction for energy saving investments; Tax reduction by using biofuels resp. in case of 5% admixture;

For cars tax depends on the motor capacity

**Denmark** 

Electrical cars have been tax-omitted until 2012 (Normal tax is 180% on cars)

Apply only for large industrial companies

**Finland** 

Tax deduction max 3000 € per person per year, max two persons per household can make the deduction, deduction is max. 60 % of total labour cost of the renovation

Labour costs: Tax deduction max 3000 € per person per year, max two persons per household can make the deduction, deduction is max. 60 % of total labour cost of the renovation

Cars:The vehicle tax law was last revised on 21 December 2007 and took force on 1 January 2008 (Law on Car Tax 1292/2007). The revision made the car tax percentage of passenger cars linearly dependant on the vehicle's specific carbon dioxide emissions. Depending on carbon dioxide emissions, the car tax was 10-40% of the car's retail price.

Cars: Tax on the propelling force is levied on all vehicles using fuel other than petrol (e.g. diesel oil). For passenger cars, the daily tax is 6,7 cents/100 kg (22,45 euros/100 kg) of the total weight or a fraction thereof. The tax is levied due to the lower excise duty on diesel oil etc. than on motor gasoline. Passenger cars using methane are exempted from this tax (albeit there is no fuel tax on methane). However, there is a proposal to revise the annual registration taxation starting on 2010 to be based on carbon dioxin emissions.

Cars: Motor fuel tax (excise duty) on motor gasoline (reformulated and with extremely low sulphur content) is 62,7 cents/litre and on diesel oil used as propellant (reformulated and with extremely low sulphur content) is 36,4 cents/litre.

Ireland

Accelerated depreciation for select industry appliances only. Accelerated Capital Allowance scheme administered by SEI.

Italy

Budget Law 2007 established:

For the years 2007-2010 a fiscal deduction of 55% pf the costs of works carried out before the 2010 and directed to improve energy buildings performances. For each type of works, is set a maximum threshold as well as a minimum energy performance to be reached.

A tax incentives up to €200 for the purchasing of A+ or A++ appliances and ax incentive oup to 36% for any energy saving lighting systems installed by 2009 in non - residential buildings;

A Gross tax deduction equal to 20% of the amounts remaining payable by the taxpayer, up to a maximum deduction of €1500 per high efficiency motors of electric power

Lithuania

Import tax higher for old cars

UK Ene

Energy intensive sectors receive an 80% reduction in the Climate Change Levy if they meet the energy-saving or energy effciency targets they have agree dunder the voluntray climate change agreements

Bulgaria

Tax deduction under corporate income taxation act in cases when companies delivering grants to the EE Fund

Switzerland

Bonus/malus under consideration in parliament; Some cantons have it for annual traffic registration fee, Large companies can be exempted from the CO2-tax on stationary fuels if they enter convenants with the Government to reduce their CO2 emissions by certain agreed amounts.

Bonus Malus into consideration; Large companies can be exempted from the CO2-tax on stationary fuels if they enter convenants with the Government to reduce their CO2 emissions by certain agreed amounts.

Some cantons have it for annual traffic registration fee

Turkey

Decreasing for 6 years

Russia

>73.55 kW cars: 5 R/kW; 73.55-110.33: 7R/kW; 110.33-147.1: 10R/kW; 147.1-183.9: 30R/kW; >183.9kW:30 R/kW. Unified transport tax for all car owners in RF. Energy efficiency intensives are established by progressive scale of tax depending on engine capacity. Similar progressive scale is implemented for all type of vehicles (motor bike, truck, ...)

Enhanced Capital Allowances available for investment by business in energy efficienct technologies

Accelerated depreciation only optional

Norway

Serbia

No CO2 tax for cars with <120 g CO2/km (increasing taxt with emission level)

Spain

Law 24/2001, of 27 December: deduction of up to 10% of the investments in equipment related to the exploitation of renewable energies.

Law 51/2002, of 27 December: reduction for municipalities of up to 50% in the Tax on economic activities (IAE) for those companies which use or produce energy from either renewable energies or CHP; and a reduction of up to 95% in the Tax on Buildings, Installations and Works (ICIO) for those which use solar energy for self-consumption.

Royal Decree Law 2/2004, of 5 March: introduction of fiscal ordinances which should be approved by the Local entities for the application of fiscal measures: reductions up to 50% in case of the Property Tax for those who have installed solar energy systems; up to 95% in ICIO; up to 50% in IAE.

Sweden

On the 1 January 2005 the Programme for Improving Energy Efficiency Act (PFE) came into force. Energy intensive companies applying before 31 March 2005 where entitled to a tax reduction backdated to 1 July 2004, when the legislation on the tax came into force.

<b>America</b>		T	ax reduction	n				
	Appliance	Cars	Lamps	Labor cost	solar water heater	Tax credit		
Country							Industry	Tertiary
Argentina								
Brazil								
Canada		TRI					AD	AD
Chile								
Colombia	TRE (IT, VAT)							
Costa Rica								
Mexico						TC	TC	TC
Peru								
Uruguay		TRE(PT)			TRE (IT,VAT)		TRE(AT)	
USA		TRE(PT)				TC	TC	TC
Venezuela								
Bolivia								
El Salvador								
Trinidad & Tobaggo								
Paraguay								

Brazil Transport: Reduction of annual tax (75%) in NG vehicle on Rio de Janeiro State.

Canada

Province of Saskatchewan and the Province of British Columbia

Accelerated capital cost allowance, Class 43.2, extended to highly fossil-fuel-efficient and renewable energy generation equipment.

Colombia Import Tax normal rate is 10% and VAT nominal rate is 16%

USA

30% tax credit for qualified fuel cells, 10% credit for microturbines and 30% for solar energy equipment.

Energy Efficient Commercial Building Tax Deduction (for energy efficient commercial buildings that reduce annual energy and power consumption by 50% compared to ASHRAE, standard). (maximum of \$1.80 per square foot) -- operational from 2006 to 2013 (extended to 2013 in 2008)

Tax credit in households: includes (1) <u>Business Tax Credit for Increased Manufacture of Energy Efficient Appliances</u> (credits vary depending on the efficiency of the unit and criteria established by Energy Star; (2) Business Tax Credit for Construction of Energy Efficient New Homes (\$1,000 for new Energy Star qualified homes or with 30% savings and \$2,000 for homes with 50% savings relative to the International Energy Conservation Code standard and meet minimum efficiency standards established by the Department of Energy) and (3) Residential Energy Efficiency Tax Credit (The credit applies to energy efficiency improvements in the building envelope of existing homes and for the purchase of high-efficiency heating, cooling and water-heating equipment, with a maximum amount of homeowner credit for all improvements combined is \$1,500 for equipment purchased during the two-year period of 2009 and 2010) For more details, see the US database of State Incentivoes for renewables and energy efficiency at http://www.dsireusa.org/incentives/allsummaries.cfm?State=US&re=0&ee=1

<u>Automobile Tax Credits</u> (maximum of \$3,400 for the most fuel-efficient vehicles); tax credit for purchase of high efficiency hybrid vehicles or diesel light duty vehicles (credit depends upon the weight class of the vehicle and its rated fuel economy compared to a base fuel economy. Will not exceed \$7,500-\$30,000 based on vehicle.

Asia		Та	x reductio	n				
	Appliance	Cars	Lamps	Labor cost	solar water	Tax credit		
Country					heater		Industry	Tertiary
Australia								
China		TRE(PT)						
Hong Kong (China)								
India								
Indonesia								
Japan	TRE(AT)	TRE (PT), TRE (AT)	TRE (PT)	TRE (PT)	TC	тс	AD, TC	AD
Republic of								
Korea	TRE(AT)					TC	TC	
Malaysia							TC	TC
Mongolia								
Myanmar								
New Zealand								
Philippines								
Singapore								
Sri Lanka							AD	AD
Taiwan, China								
Thailand		TRE (PT)						
Vietnam								

#### Japan

In 2009FY and 2010FY ,100% depreciation is allowed for energy efficient equipment.

Either annual tax reduction or accelerated depreciation can be applied. Tax reduction is equivalent to 7% of purchase value. Only for smaller business operator under specified conditions.

Korea

Domestic residents seeking to invest in energy saving facilities, as designated by the President's Executive Order exclusing investments on second hand equipments, can apply for a tax waiver (10% of total investment cost) from income or corporate tax. Target buildings are with single phase electric motors, fluorescent lamps, ballasts for fluorescent lamp, compact fluorescent lamp, high illumiance reflectors for fluorescent lamp, sensor lighting equipments, waste heat recovery vetilators, high efficiency windows, high efficiency heat pumps, transformersm high efficiency boilers.

#### **Thailand**

20-25% tax for cars

#### New Zealand

Ethanol for blending in petrol is exempt from excise. Normal rate for petrol that ethanol does not have to pay is 42.524 cents per litre.

Exemption to Road User Charges for light electric vehicles to 2013. Normal rate for vehicles not paying excise is \$32.06 per 1,000 km including GST (rate from 1 October 2009)

Also, 42.5 c/litre grant for biodiesel sales.

Thailand

Regarding the fiscal tax incentive measure, a tax incentive from Board of Investment (BOI) is offered to a business in manufacturing of EE equipments and ESCO business. An exemption of corperate income tax up to the max. of 8 years and import tax is given to the qualified business as being mentioned.

Vietnam

Tax reduction for energy efficient equipment is planed in the content of draf of Energy efficiency and conservation law, which is being submitted to National Assembly

Mongolia

50% of 50W solar home system cost; PV module exempt from custom tax

China

Excise tax rates for vehicles have been proportional to the size of car engines since 1994; on september 2008, the excise tax for engines 1.0L or less further decreased to 1%, while for engines from 3.0 to 4.0 it increased to 25%; the rate for cars with engines over 4.0L increased to 40%.

Middle East		Та	x reductio	n				
Country	Appliance	Cars	Lamps	Labor cost	solar water heater	Tax credit	Industry	Tertiary
Iran								
Israël								
			TRE(VAT,		TRE(VAT,			
Jordan		TRE(IT)	IT)		IT)			
Lebanon								
Yemen							AD	
Syria			TRE(IT)		TRE(IT)		AD	AD

Syria

import tax free for CFL lamps 100% and SWH (absorbe plate) 100%

Africa		Та	x reductio	n				
Country	Appliance	Cars	Lamps	Labor cost	solar water heater	Tax credit	Industry	Tertiary
Algeria	None	None	None	None	None	None		
Botswana								
Cote d'Ivoire								
Egypt						TC		
Ethiopia	None	None	None	None	None	None	AD(P)	AD(P)
Ghana								
Guinea Bissau								
Kenya								
Mali	None	None	None	None	None	None	None	None
Mauritanie								
Morocco								
Nigeria	None	None	None	None	None	None	None	None
Senegal	None	None	None	None	None	None	None	None
South Africa	None	TRE (PT, P)	None	None	None	None	AD	None
Tanzania								
Tunisia	TRI	TRI	TRE (IT, VAT)		TRE (IT, VAT)	TC		

Ethiopia

Accelerate depreciation planned under the new Energy Law

South Africa

The announcement has been made but it has not been implemented yet. Carbon tax for cars - Not fully implemented yet - announcement made.

#### Regulatory measures

LB for Energy efficiency labels (electrical appliances, cars, buildings)

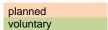
MS for Minimum energy efficiency standards for new buildings, appliances or cars

V for voluntary

C for measures with control of regulation

Mandatory energy audits (MEA), Mandatory energy managers (MEM), Mandatory energy consumption reporting (MCR), Mandatory energy savings plans (MSP),

#### Energy efficiency labels (electrical appliances, cars, buildings)



EUROPE									
Country	Refrigerators	Washing machine	Air conditioning	Lamps	Water heaters	Total number of household appliances with labels	Cars	Existing buildings	New buildings
EU	LB(1995	LB(1996)	LB(2002)	LB(1999)		9	LB		
Austria	LB	LB	LB	LB	LB	9	LB		
Belgium	LB	LB	LB	LB		9	LB		
Bulgaria	LB(2003)	LB(2003)	LB(2003)	LB(2003)		9			
Cyprus	LB	LB	LB	LB		9	LB		
Czech Republic	LB(2004)	LB(2004)	LB(2004)	LB(2004)		9		LB(2009,V)	LB(2009)
Denmark	LB (1995)	LB(1996)	LB(2003)	LB(1999)	LB	9	LB	LB	LB
Estonia	LB (2001)	LB(2001)	LB(2004)	LB(2004)		9	LB		
Finland	LB(1995)	LB(1996)	LB(2005)	LB(2000)	LB (P)	9	LB(P)	LB(2009)	LB(2008)
France	LB(1995)	LB(1998)	LB	LB(1999)		9	LB(2006)	LB(2007)	LB(2007)
Germany	LB(1998)	LB(1998)	LB(2003)	LB(1999)		9	LB	LB	
Greece	LB(1998)	LB	LB	LB		9	LB		
Hungary	LB	LB	LB	LB	LB(P)	9	LB		LB
Ireland	LB(1997)	LB(1996)	LB(2002)	LB(1999)	LB(2008)	9	LB(2001)	LB(2008)	LB(2008)
Italy	LB(1998,2005)	LB(1998)	LB(2003)	LB		9	LB	LB(V)	LB
Latvia	LB(2002)	LB(2002)	LB	LB(2002)		9	LB	LB(2009)	LB(2009,V)
Lithuania	LB(2003)	LB(2003)	LB	LB(2003)	LB(2003)	9		LB(2006)	LB(2006)
Luxembourg	LB	LB	LB	LB		9	LB		
Malta	LB(2004)	LB(2004)	LB(2004)	LB(2004)		9	LB	LB	
Netherlands	LB(1996)	LB	LB			9	LB		
Poland	LB (2003)	LB(2003)	LB(2003)	LB(2003)		9	LB		LB(2009)
Portugal	LB(1999)	LB(1999)	LB	LB	LB(1996)	9	LB	LB	LB
Romania	LB(2001)	LB(2001)	LB(2003)	LB(2001)		9	LB	LB(2010)	LB(2010)
Slovakia	LB(2002)	LB(2002)	LB(2003)	LB(2002)		9	LB		
Slovenia	LB (2001)	LB(2001)	LB(2004)	LB(2001)		9	LB	LB(2009,P)	LB(2009,P)
Spain	LB(1995)	LB(1996)	LB(2003)	LB(2002)		9	LB	LP(P)	LP(P)
Sweden	LB(1995)	LB(1998)	LB(2003)	LB(1999)	LB(2011,P)	9		LB(2009)	LB(2006)
UK	LB(1995)	LB(1996)	LB(2003)	LB(1999)		9	LB	LB(2008)	LB(2008)
Norway	LB	LB	LB	LB		8	LB	LB (V)	LB (V)
Croatia	LB(2007)	LB(2007)	LB(2007)	LB(2007)			LB	LB(2009)	LB(2009)
Iceland	LB(1996)	LB(1996)	LB(2004)						
Serbia									
Montenegro									
Switzerland	LB(2002)	LB(2002)		LB(2002)	LB		LB(2002)		
Turkey	LB(2002)	LB(2003)		LB					
Russia	LB(2001,V)	LB(2001,V)	LB(2000, V)			9			

#### EU: Labels at EU level

- electrical appliances: 9 appliances concerned (refrigerator 1995, freezer & combinaison 1997, washing machine 1996, electric dryer 1995, combined washer drier 1996, dishwasher 1997, lamps 1998, Ac 2002, electric oven 2002)

- buildings (residential & public): The EPBD Directive has been designed by the European Commission to improve the energy performance of all buildings across the EU. The Directive will require that energy certificates be produced for buildings on construction, sale and lease. Large public sector buildings will be required to display energy certificates to the public. The Directive also targets boilers and air conditioning as major sources of energy consumption.

Austria: Implemented between 1994 and 2004

France: other appliances (freezers&combinaison:1995, dishwashers:1998)

UK: Tumble driers, cookers, dishwashers, air -conditioners

Croatia: freezers and combination, dishwashers (2007,M)

Finland: dryers, tubble dryers, freezeq (1995-1997,M), dishwashers (2000,M), ovens (2003,M)

Czech Republic: Electrical oven, dishwashers, electric tumble dryers (2004,M)

Poland: Labels amended in 2005; labels concern also 6 other appliances (freezers, refrigerators-freezers, tumble driers, washing

machines-driers, dishwashers, ovens)

Slovenia: Tumble dryers, Electric ovens, dishwashers (2001,M)

Latvia: Dish washers, dryers (2002,M), ovens (2004,M)

Norway: Energy label are voluntary and will become mandatory from 1 July 2010 for new buildings and lease of existing buildings

Spain: Label for dwellings under development (Royal Decree)

America									
Country	Refrigerators	Washing machine	Air conditioning	Lamps	Water heaters	Total number of household appliances with labels	Cars	Existing buildings	New buildings
Argentina	LB(2005)	LB(2008)	LB(2007,V)	LB(2008)		7		LB(1996)	LB(1996,V)
Brazil	LB(2006)	LB(2006)	LB(2006)	LB(2006)	LB(2006)	5	LB(2009)	LB(2010,V)	LB(2010,V)
Canada	LB(1995)	LB(1995)	LB(1995)	LB(2008)	LB(1995)	10	LB(1998)	LB(1998,V)	LB(1982,V)
Chile	LB(2007)			LB(2007)		3			
Colombia	LB(2010, P)	LB(2010, P)	LB(2010, P)	LB(2010, P)	LB(2010, P)	Р			
Costa Rica	LB(1996)		LB(1996)	LB(1996)	LB(1996)	7			
Mexico	LB(1995)	LB(1995)	LB(1995)	LB(1995)		6			
Peru	LB(2007,V)	LB(P)	LB(P)	LB(2001,V)	LB(2006,V)				
Uruguay	LB(V)	LB(V)	LB(V)	LB(V)	LB(V)				
USA	LB(1980)	LB(1980)	LB(1993)		LB(1980)	17	LB		
Venezuela	LB(1998)					1			
Bolivia									
El Salvador				LB(2004)					
Trinidad & Tobaggo									
Paraguay									

**Argentina** Electric Mootor (industry) (2008,V)

boiler (2001), electric shower, ceiling fan, TV (stand by), gas powered stove and ovens (mandatory since

8 other appliances (dryers, freezers, coolers, cooking appliances (1995,M), CFL (planned, 2009,M), gas

Canada furnaces and boilers, heat pumps (1998, V)

Columbia

Label for refrigerators, washing machine and AC will be mandatory after 2010 (2011 for lamps and water

Uruguay heaters)

Brazil

Asia									
Country	Refrigerators	Washing machine	Air conditioning	Lamps	Water heaters	Total number of household appliances with labels	Cars	Existing buildings	New buildings
Australia	LB(1986)	LB(1990)	LB(1987)			6	LB(2004)		
China	LB(2005)	LB(2007)	LB(2007)	LB(2008)	LB(2008)	12	LB(2004)	LB(2008)	LB(2008)
Hong Kong (China)	LB(2008)		LB(2008)	LB(2008)					
India	LB(2009)	LB(2010,V)	LB(2009)	LB(2009)		8	LB(2010,V)	LB(2008,V)	LB(2008,V)
Indonesia	LB(2010,P)	LB(2012,V)	LB(2011,V)	LB(2009,V)	LB(V)	Р			
Japan	LB(2006)	LB(2004)	LB(2006)	LB(2006)	LB(2004)	15	LB(2007)		LB(2006)
Republic of Korea	LB(1992)	LB(2002)	LB(1993)	LB(1992)		31	LB(2002)	LB	LB(V)
Malaysia									
Mongolia									
Myanmar									
New Zealand	LB(2002)	LB(2002)	LB(2002)			9	LB(2007)	LB(2010,P)	LB(2010,P)
Philippines	LB(2000)		LB(2002)						
Singapore	LB(2007)		LB(2007)						
Sri Lanka	LB(2011,P)		LB(2011,P)					LB(2010,P)	LB(2010,P)
Taiwan, China	LB(1992,V)	LB(1992,V)	LB(2002)	LB(1992,V)		V			
Thailand	LB(P)	LB(P,V)	LB(P,V)	LB(P,V)	LB(P,V)	V	LB(P,V)	LB(2007,V)	LB(2007)
Vietnam	LB(P)	LB(P)	LB(P)		LB(P)	P			

India Labels for lamps concerns tube light; total 11 appliances labelled (voluntary); mandatory for products with meps in 2010

Indonesia Only volunatyr labels planned for 2010-2012

TV, Freezer, Rice Cooker, Microwave Oven, Toilet Seat, Video set, DVD recorder, Computer, Magnetic Disk, etc. (2004-2007: M)

2007; M)

Japan

Korea 15 appliances including dish washer, electric fan and vacuum clearners. Etc (M)

New Zealand

dryers, dishwashers (2002,M), gas heaters, heat pumps (2013,M), TV (2009,M)

The National Development and Reform Commission established mandatory fuel efficiency standards for passenger cars in 2004. The standards were implemented in two phases: Phase 1 took effect in 2005 for passenger vehicles and Phase

China 2 in 2008 for light-duty vehicles. The standards classify vehicles into 16 categories based on vehicle weight.

First mandatory information labelling was introduced in 2005 by the China Standards Certification Center Since 2008 China establishhed a building energy efficient certification system to inform consumers about energy efficiency of buildings (Energy Conservation Regulation for Civil Buildings)

Middle East									
Country	Refrigerators	Washing machine	Air conditioning	Lamps	Water heaters	Total number of household appliances with labels	Cars	Existing buildings	New buildings
Iran	LB(1998)	LB	LB			6			
Israël	LB(1986)	LB(1986)	LB(1990)			10			
Jordan	LB(P)	LB(P)	LB(P)	LB(P)		Р			
Kuwait									
Lebanon	LB(P)		LB(P)		LB(P)	Р			LB(P)
Yemen	LB(2010,P)	LB(2011,P)	LB(2011,P)	LB(2010, P)	LB(2010,P)	Р			
Syria	LB(2009)	LB(2009)	LB(2009)	LB(2009)	LB(2009)				

**Lebanon** Label on refrigerators, air conditioning and water heaters planned

Yemen Labels planned fro 2010-2011

Africa									
Country	Refrigerators	Washing machine	Air conditioning	Lamps	Water heaters	Total number of household appliances with labels	Cars	Existing buildings	New buildings
Algeria	LB(P;2010)		LB(P;2010)	LB(P;2010)		Р			LB(2010,P)
Botswana									
Cote d'Ivoire									
Egypt	LB	LB	LB(2003)		LB	5			
Ethiopia	LB(P)	LB(P)	LB(P)	LB(P)	LB(P)				
Ghana	LB(P)		LB(2005)			P			
Guinea Bissau									
Kenya									
Mali									
Mauritanie									
Morocco									
Nigeria	LB(P)	LB(P)	LB(P)		LB(2003,V)	Р	LB(2003,V)	LB(P)	LB(2005,V)
Senegal									
South Africa	LB(2007)	LB(P,V)	LB(P)	LB(P)	LB(P)	1	LB(2008)	LB(P)	LB(P)
Tanzania									
Tunisia	LB(2004)	LB(2011, P)	LB(2009)	LB(2011, P)	LB(2005)	3			LB(2008)

Algeria Labels for refrigerators, air conditioning and lamps planned for 2010

Ethiopia Under consideration after E law for refrigertaors, washing machine, lamps and water heaters

Nigeria Labels for refrigerators, washing machine and air conditioning are planned

South Africa Labels planned for air conditioning, lamps and water heaters

Tunisia Labels planned for washing machine and lamps in 2011

## Minimum energy efficiency standards for new buildings , new appliances and cars

EUROPE									
	Residential	Commercial,	Refrigerators	Washing	Air conditioning	Lamps	Water heaters	Cars	Electric
Country	buildings	public buildings	The state of the s	machine	7 til Corlattoring	Lampo		Ouro	motor
EU	MS	MS	MS(1996)				MS(1992)		
Austria	MS	MS	MS(1997)				MS		
Belgium	MS(1986/1997)	MS(2000)	MS				MS		
Bulgaria	MS(2005)	MS(2005)	MS (2001)				MS		
Cyprus	MS	MS	MS				MS		
Czech Republic Denmark	MSc (2007) MSc (2006/2010)	MSc (2007) MSc (2006/2010)	MSc (2004) MSc (1997)	MS (P;V)	MS (P; V)	MS (P;V)	MS (P;V) MS	MS	MS (P;V)
Denmark	NISC (2006/2010)	IVISC (2006/2010)	MSC (1997)		+				
Estonia	MS(1999/2007)	MS(1999/2007)	MSc (2004)			MSc (2004)	MS		
Finland	MSc (2007/2009)	MSc (2007/2009)	MSc (2000)			MSc (2002)	MS		
France	MS(2000/2005)	MS(2000/2005)	MS(1998)			MS(2001)	MS (1994)		
Germany	MS(2002/07)	MS(2002)	MS(1998)				MS		
Greece	MS(1995/01)	MS(1995/01)	MS(1998)				MS		
Hungary	MS(2007)	MS(2007)	MSc (2002)	MSc (2002)	MSc (2004)	MSc (2002)	MS		
Ireland	MS(2002/06)	MS(2002/06)	MS(1997)			MS(2001)	MS(2008)		
Italy	MS(1994/2005)	MS(1994/2005)	MS(1998/2005)	MS(1998)	MS(2003)	, ,	MS(1997/2005)		
Latvia	MSc (2009)	MSc (2009)	MS (2002)	MSc (2002)		MSC (2002)	MS		
Lithuania	MS (2006)	MS (2006)	MS (2004)				MS		
Luxembourg	MS	MS	MS				MS		
Malta	MS (2006)	MS (2006)	MS(1997)				MS		
Netherlands	MS(1998/2000)	MS(1998/2000)	MS(2004)				MS		
Poland	MS (2008)	MS (2008)	MS (2001/2003)			MS (2005)	MS		
Portugal	MS(2002)	MS(2002)	MS		MS		MS		
Romania			MS (1997)	MS (2001)	MS (2003)	MS (2001)		N	N
Slovakia	MS (2005)	MS (2005)	MS				MS		
Slovenia	MS (2002/08)	MS (2002/08)	MS (2001)				MS		
O	MS(1998/2007)	MS(1998/2007)	MS(1995/2003/2 007)	MS(1996)	MS(2003)	MS(1999/2007)	MS(12007)		
Spain	, , ,	, ,		` '	` '	_ `	` ′		MO(0044 D)
Sweden UK	MS(2006/2009)	MS(2006) MSc (2002/06)	MS(1999)	MS(2011,P)	MS(2011,P)	MS(2009)	MS(2011,P) MS	MS (P)	MS(2011,P) MS (P)
Norway	MSc (2002/06) MS	MSc (2002/06) MS	MSc (1996) MS	MS	MS (P)	MS (P)	IVIO	M2 (b)	IVIO (P)
Croatia	MS (2006)	MS (2006)	MS (2006)	<del> </del>	+	1			
	MS (2006) MS (1998)	MS (2006) MS (1998)	IVIS (2000)		-		-	-	
Iceland	` '	` '			-		-	-	
Serbia	MSc	MSc			+				
Montenegro	<del> </del>			-	+	-	-	-	MSc
Switzerland	MSc (2009-2011)	MSc (2009-2011)	MS (2003)	MS (2003)		MS (2003)			(P;2010)
Turkey	MS(2000)	MS(2000)	MS (2005)			MS (2003)			
Russia	MS(2003)	MS(2003)	MS (1987, V)	MS (1984, V)	MS (1988, V)	MS (2001, V)	MS (1996, V)		

**EU** For EU countries, it exist Directives defining mandatory labels for most appliances and mandatory standards for

some appliances: refrigerators and freezers (Directive 96/57/EC); a law has to be passed in each country to make it effective. For washing machine, there is a voluntary agreement to improve the efficiency, signed with

the association of manufactures (CECED).

New requirements based on EU EcoDesign directive (adopted in November 2009) will be implemented due to

EU specific regulations

Belgium

Dwellings: 15-25% savings compared to the previous period

Dwellings & buildings: 25-30% savings compared to the previous period (new revision planned in 2010 with

Denmark savings of 25%)

Finland Dwellings & buildings: 30% savings compared to the previous period

France Dwellings & buildings: 15% savings compared to the previous period

Germany Dwellings & buildings: 30% savings compared to the previous period

Greece Dwellings & buildings: 20-30% savings compared to the previous period

Italy Dwellings & buildings: 10% savings compared to the previous period

Netherlands Dwellings & buildings: 22% savings compared to the previous period

Norway The new building regulation (2007) is calculated to reduce energy demand by 25 % in new buildings.

Portugal Dwellings: 7,5% savings compared to the previous period and 25% for buildings

**Spain** Dwellings & buildings : 20% savings compared to the previous period

For coled appliances, lamps and water heaters : minimum standards Royal Decree 1369/2007 of Octiber

19.2007 setting Ecodesign requirements for energy using products

UK Dwellings & buildings: 40% improvement over pre 2002 revision Czech Republic Dwellings & buildings: 16% savings compared to the previous period Estonia Dwellings & buildings: 26% savings compared to the previous period Hungary Dwellings & buildings: 15% savings compared to the previous period Lithuania Dwellings & buildings: 25% savings compared to the previous period Slovenia Dwellings & buildings: 15% savings compared to the previous period Croatia Dwellings & buildings: 20-25% savings compared to the previous period Iceland Dwellings & buildings: 2% savings compared to the previous period

Switzerland Dwellings: 35% savings compared to the previous period and 15% for buildings

America									
Country	Residential buildings	Commercial, public buildings	Refrigerators	Washing machine	Air conditioning	Lamps	Water heaters	Cars	Electric motor
Argentina			MS(2007)			MS(2007)	MS (P)		MS (P)
Brazil	MS (P)	MS (P)	MS(P)			MS(2006)			
Canada	MS(1997,V)	MS(1997,V)	MS(1995)	MS(1995)	MS(1995)				
Chile									
Colombia			MS (2010,P,V)	MS (2010)	MS (2010;P)	MS (P;2010)	MS (P;2010)		MS (P;2010
Costa Rica			MS(1996)						
Mexico	MS(2007)	MS(2001)	MS(1995)	MS(1995)	MS(1998)	MS(1997)			
Peru			MS(2008, V)			MS(2009, V)	MS(2009, V)		MS(2009, V)
Uruguay	MS	MS	MS			MS	MS		
USA	MS	MS	MS(1990/93)	MS(1994/04)	MS(1992/06)	MS(1990/05)	MS(1990/04)		
Venezuela			MS(V)						
Bolivia									
El Salvador									
Paraguay									
Trinidad & Tobaggo									

Canada

Voluntary minimum standards for dwellings and buildings (20-50 % savings in dwellings compared to the previous standards)

Brazil

All the products included in the program are tested in laboratories authorized by the Inmetro following specific standards and regulations, certified for appropriateness and classified for power performance using a scale from "A" to "G". From times to times, the classification level values are increased in order to promote a continuous improvement of the products' power performance. After a given period of time, the labeling process becomes compulsory for the purposes of only allowing the sale of products that comply with the minimum efficiency, quality and safety requirements.

Columbia

Minimum standards for electrical appliances will be in a first step only voluntary

Mexico

Dwellings&Buildings: 30% savings compared to the previous standards

USA

A new standard has been adopted in December 2007 that require most new federal buildings to achieve at least 30% greater energy efficiency than that of the prevailing building codes. The new standards are also 40% more efficient than the standards in the current Code of Federal Regulations

Each States has each own residential / commercial codes (mandatory or voluntary, with or without amandements) : see http://www.energycodes.gov/implement/state\_codes/state\_status\_full.php

On 23 January 2006, DOE's regulations under the National Appliance Energy Conservation Act (NAECA) established a new efficiency standard for certain heating and cooling systems. The greatest impact of the new requirements is on residential sized central air conditioners and heat pumps, whose minimum efficiency ratings are now SEER 13 for cooling and HSPF 7.7 for heat pump heating.

cooling and HSPF 7.7 for neat pump neating

Uruguay

National energy efficiency standards have been recently approved.

Asia									
Country	Residential buildings	Commercial, public buildings	Refrigerators	Washing machine	Air conditioning	Lamps	Water heaters	Cars	Electric motor
Australia	MS(2006)	MS(2006)	MS(1999)		MS(2001)	MS(2003)	MS(1999)		MS
China		MS(2007)	MS(1990)	MS(1989)	MS(1989)	MS	MS	MS	
Hong Kong (China)		MS(1995)							
India		MSc (2007,V)	MSc (2010)		MSc (2010)	MSc (2010)			MSc (2011, planned)
Indonesia	MSc (2005,V)	MSc (2005,V)	MS			MSc (2006)			
Japan	MS (1979/2005/- 2008)	MS (1979/2005/- 2008)	MSc (V)		MSc (P;V)	MSc (V)	MS (V)	MSc (V)	
Republic of Korea	MS (2001,V)		MS (1992)	MS (2002)	Ms (1993)	MS	MS (2002)		MS (2008)
Malaysia		MS (2001,V)							
Mongolia									
Myanmar									
New Zealand	MSc (2000/2008))	MSc (2000/2008))	MS (2002)		MS (2002)	MS (2002)	MS (2004)		MS (2004)
Philippines		MS (1992,V)							
Singapore		MS (2004)							
Sri Lanka		MS (2010;P)	MSc (2011, P)		MS (2011; P)	MSc (2009)			MSc (P;2012)
Taiwan, China	MSc (1995/2002)	MSc (1995/2002)							
Thailand	MS (planned)	MS (2009; approx. 5-10 %)	MS (2006)	MS (P)	MS (2005)	N/A	N/A	MS (P)	MS (P)
Vietnam		MS(2007)	MS (P)	MS (P)	MS (P)	MS (2008,V)	MS (P)	MS (P)	

Australia Label and MEPS available on <a href="http://www.energyrating.gov.au/man1.html">http://www.energyrating.gov.au/man1.html</a>

Hong Kong Buildings: 15% savings compared to the previous standards

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Rate of savings in commercial / public buildings = 40 to 60% compared to conventional buildings (control planned); MEPS

India minimum one star

Voluntary minimum energy efficiency standards of 1979 revised in 2005/2008; Standards for electrical appliances based on voluntary agreement

**Korea** Voluntary minimum energy efficiency standards (13,5% savings compared to the previous standards)

New

**Zealand** Minimum standards in buildings reinforced in 2007/2008 : 30% savings

Higher insulation and double glazing requirements for houses were introduced progressively through 2007/08. Lighting requirements for commercial buildings were improved in 2007. 2000 revision of energy efficiency requirements for houses made small energy gains only. Energy efficiency requirements for commercial buildings were introduced in 2000 (includes building envelope thermal efficiency, lighting). Domestic type hot water systems are included for both residential and commercial buildings.

Singapore Minimum standards in buildings (2004): 22% savings

Ski Lanka Voluntary minmum standards for dwellings & buildings until now; mandatory standards planned for 2010

**Thailand** Effect only for new constructed buildings which have area of more than 2000 sq.m.

**Taiwan** Standards for dwellings with 20% savings (5-10% for buildings)

The Central Gouvernment adopted the first national building energy standard in 2007 as part of its Eleven Five Year Plan (50% reduction of building's total operation load based on building's energy consumption during the 1980s)

China's first product efficiency standards were introduced in 1989 with the adoption of the MEPS. Initailly 8 home electrical appliances were concerned (refrigerators, room air conditioners, washing machine, TV, rice cookers, radios and recorders, electric fans and electric irons.

Currently 22 major home and commercial electrical appliances are regulated under the MEPS (incl fluorescent lamps, small electric motors, gas water heatersand comercial packaged air conditioners)

Vehicle Fuel Economy Standards (2008)

Vietnam Energy efficiency and conservation Regulation for Civil Buildings (building codes 2004/2007)

Middle East									
Country	Residential buildings	Commercial, public buildings	Refrigerators	Washing machine	Air conditioning	Lamps	Water heaters	Cars	Electric motor
Iran	MS (2000)	MS (2000)	MS(1999)	MS(2002)	MS(2002)				
Israël			MS(1986)						
Jordan									
Lebanon	MS (P)	MS (P)	MS (2007,V)		MS (2008;V)	MS (2007,V)	MS (2008;V)		
Yemen						MS (2009,V)			
Syria	MS (2008)	MS (2008)							

Lebanon Minimum standards planned for buildings with 30% savings

Minimum standards on electrical appliances based on voluntary agreement (2007/2009) for refrigerators, air conditioning,

lamps and water heaters

Yemen Voluntary agreement for lamps (2009)

Syria Minimum standards for dwellings and buildings (40 % savings compared to the previous standards)

Africa									
Country	Residential buildings	Commercial, public buildings	Refrigerators	Washing machine	Air conditioning	Lamps	Water heaters	Cars	Electric motor
Algeria	MS (2005)	MS (2005)	MS						
Botswana									
Cote d'Ivoire									
Egypt	MS (2006)	MS (2009)	MS(2003)	MS(2003)	MS(2003)	MS 2005	MS2007		MS2009
Ethiopia			MS (P, 2010-2015)	MS (P, 2010-2015)	MS (P; 2010-2015)	MS (P; 2010-2015)	MS (P; 2010- 2015)	MS (P; 2010- 2015)	MS (P; 2010- 2015)
Ghana			MS (P)		MS (2005)	MS (2005)			
Guinea Bissau									
Kenya									
Mali									
Mauritanie									
Morocco									
Nigeria			MS (2010,V)	MS (2010)	MS (P)	MS (2003)	MS (2009)	MS (2005)	MS (P)
Senegal	MS (P)	MS (P)	MS (P)	MS (P)	MS (P)	MS (P)	MS (P)	MS (P)	MS (P)
South Africa	MS (2008,V)	MS (2008,V)							
Tanzania									
Tunisia	MSc (2007/2009)	MSc (2007/2010)	MSc (2004)	MSc (P;2010)	MSc (2009)	MSc (P;2011)	MS c (2005)		

Algeria Dwellings&Buildings: 30-40% savings compared to the previous standards

Morocco Minimum standards planned for dwellings and buildings with 20% savings

South Africa Voluntary minimun standards for dwellings and buildings

Tunisia Dwellings: 30% savings compared to the previous standards

Buildings: 30% savings compared to the previous standards (Next revision planned for 2010)

# Mandatory other regulations (audits, energy managers, energy consumption plans, energy savings plans)

Mandatory energy audits (MEA), Mandatory energy managers (MEM), Mandatory energy consumption reporting (MCR), Mandatory energy savings plans (MSP),

Czech

Rep

EUROPE					
		Commercial	Public		Transport
Country	Residentials	buildings	buildings	industry	compagnies
Austria		, and the second	Ü		
Belgium					
Bulgaria			MEA		
Cyprus					
Czech Republic		MEA, MCR	MEA, MCR	MEA, MCR	MCR
Denmark			MEA,MEM,MC R, MSP	MEM, MCR, MSP	
Estonia				MCR	
Finland					
France	MEA	MEA			
Germany	MEA	MEA/MCR	MEA	MCR	
Greece			MEM		
Hungary				MCR,MEM (planned)	
Ireland	MEA	MEA	MEA		
Italy	LB*	LB MEM**	MEM, LB	C*** MEM	MEM
Latvia					
Lithuania	MEA	MEA	MEA	MCR,MEM	
Luxembourg					
Malta	MEA	MEA	MEA		
Netherlands					
			MEM,MSP,		
Poland	MEA		MEA	MEM,MSP	
Portugal	MEA	MEA	MCR,MEM, MSP	MCR,MEM, MSP	MCR,MEM, MSP
Romania	MEA		MEM, MSP, MEA	MEM, MSP, MEA	MEM, MSP
Slovakia	MCR		IVIEA	MCR	MCR
Slovania Slovenia	WICK			WOR	WICK
Spain	MEA	MEA	MEA,MSP		MSP
Sweden	MEA	MEA	MEA,WSP		IVIOF
UK	MEA	MEA	MEA, MCR	1	+
Norway	IVILA	WILA	WILA, WOR	1	+
Croatia	MEA	MEA	MEA	MCR	+
Croatia Iceland	IVIEA	IVIEA	IVICA	IVION	+
	MCD	MCD	MCD		+
Serbia Montenegro	MCR	MCR	MCR		+
Montenegro Switzerland			MCR	1	+
Turkey			IVION		+
rurkey	-		1	MCR, MEM,	+
Russia	MCR		MCR	MSP	MCR

France Mandatory for new construction, sales of existing dwellings (2006) and renting (2007)

**UK** From June 2007 households selling or leasing a domestic property must provide an Energy Performance Certificate

In the public sector, energy audits is obligatory if energy consumption is above 1,500 GJ per year. For private facilities, energy audits is mandatory if energy consumption is above 35,000 GJ per year. The Mandatory consumption reporting must be elaborated for Czech Statistical Office in case some institution and company according to its rules concerning the size of company, energy consumption etc.

Ireland Mandatory energy audits on all new dwelling & on sale or renting of existing dwelling)

Malta MEA on all new dwelling/building & on sale or renting of existing dwelling/building (production of energy efficiency certificate)

\* Energy Certification is required for exisitng building in case of commercial transactions

\*\*MEM is mandatory for industries with a consumption of more than 10.000 tep/per year and public authorities/services with
more 1.00 Tep per year

\*\*\* GHG emissions audit are requested for industries under the ETS system

Spain PAEE-AGE - Energy Saving and Energy Saving Plan in Public Administrations (within Action Plan 2008-2012)

Energy saving plan in public administration (Green Public Procurement Plan - ORDEN PRE/116/2008)

America					
		Commercial	Public		Transport
Country	Residentials	buildings	buildings	industry	compagnies
Argentina					
			MEA, MEM,		
Brazil			MCR, MSP		
Canada					
Chile					
Colombia	MSP**		MSP**		
Costa Rica					
Mexico					
Peru					
Uruguay			MEM, MSP		
USA			MCR		
Venezuela					
Bolivia					
El Salvador					
Trinidad & Tobaggo					
Paraguay					

Brazil

Public buildings - In all companies and entities of the Federal Administration have CICE - Internal Commission to Energy Conservation, if they are consumption above 600 MWh/year or above 15 toe/year.

Columbia

\*\* No Mandatory, only Voluntary. Only measures in public buildings are mandatory (ilumination)

Uruguay

Every Public Office was obliged to sign with the Ministry of Industry, Energy and Mining an Energy Efficiency Agreement. The aim of these agreements is to establish energy saving targets for the period 2009 – 2014, and the minimum energy savings allowed for such period is 5% regarding the energy consumption of 2007 of each office.

Moreover, the agreement also establishes that each office has to reduce 50% the purchase of incandescent light bulbs during 2009, and that from 2010 the purchase is banned. The purchase of fluorescent tubes (T12 type) is also banned since July 2009 by this decree.

USA

For Federal Agency buildings only US also has "voluntary" reporting for GHGs, including energy consumption reporting. The Registry of Greenhouse Gas Emissions and Emission Reductions encourages companies, electric utilities, farmers, landowners and other participants to submit reports on their emissions and emission reductions, including sequestration. http://www.pi.energy.gov/enhancingGHGregistry/index.html

# Mandatory energy audits (MEA), Mandatory energy managers (MEM), Mandatory energy consumption reporting (MCR), Mandatory energy savings plans (MSP),

Asia					
		Commercial	Public		Transport
Country	Residentials	buildings	buildings	industry	compagnies
Australia	MCR				
China			MEM,MCR, MSP	MEA, MSP, MCR,MEM	
Hong Kong (China)					
India		MEA, MEM, MCR, MSP (planned)	MEA, MEM, MCR, MSP (planned)	MEA, MEM, MCR and MSP (planned)*	
Indonesia		MEA, MEM, MCR, MSP (planned)		MEA, MEM, MCR, MSP (planned)	
Japan		MEA, MEM ,MCR, MSP	MEA, MEM ,MCR, MSP	MEA, MEM ,MCR, MSP	MEA, MEM ,MCR, MSP
Republic of Korea		MEA	MCR,MSP	MCR, MSP, MEA	MSP
Malaysia		MEM,MCR	MEM,MCR	MEM,MCR	
Mongolia					
Myanmar					
New Zealand					
Philippines			MEA	MEA	MEA
Singapore					
Sri Lanka		MEA,MEM, MCR, MSP	MEA,MEM, MCR, MSP	MEA,MEM, MCR, MSP	
Taiwan, China					
Thailand			MCR, MEM, MSP	MCR, MEM, MSP	
Vietnam				MCR, MEM	

China

In the framework of the programm "1000 entreprises implementation Plan of Energy Conservation", the entreprises are required to form energy managers, measure and report energy consumption and prepare energy conservation plans.

India

9 industrial energy intensive sectors Designated consumers (consumption > 30 000 toe/year)

Japan consuming more than 1500kL oil equivalent Efficient Management of Electrical Energy Regulations 2008 (March 2010): any installation consuming more than 3,000,000 kWhave to obligation: to submit information to the Commission information and to have an energy manger.

Middle East					
		Commercial	Public		Transport
Country	Residentials	buildings	buildings	industry	compagnies
Iran				MEM	
Israël					
Jordan					
Lebanon					
Yemen					
	MEA,MEM, MCR,	MEA,MEM,	MEA,MEM,	MEA,MEM,	MEA,MEM,
Syria	MSP	MCR, MSP	MCR, MSP	MCR, MSP	MCR, MSP

Africa					
Country	Residentials	Commercial buildings	Public buildings	industry	Transport compagnies
Algeria	MCR	MEA, MCR, MSP	MEA, MCR	MEA, MCR, MSP	MEA, MCR, MSP
Botswana					
Cote d'Ivoire					
Egypt					
Ethiopia	MEA (P)	MEA (P)			
Ghana					
Guinea Bissau					
Kenya					
Mali					
Mauritanie					
Morocco					
Nigeria					
Senegal					
South Africa					
Tanzania					
Tunisia	MEA, MSP	MEA, MSP	MEA, MEM, MSP	MEA, MCR, MSP	MEA, MSP

Algeria Commercial & Public buildings >= 500 toe; Industry >= 2000 toe; Transport companies >= 1000 toe

Ethiopia Planed but after the Energy law is effective.

Energy managers, energy savings plans and energy consumption reporting planned in industry, services

South Africa and residentials

#### Obligation of energy savings for energy companies for their consumers

Sector	E I	Target &
concerned	ruei	period
-		
		0,5 TWh/year
All	All	(2010)
All	All	2008-2016
		54 TWh in 3
All	A.II	years (2006- 2008)
All	All	2008)
-		
		Electricity
		distribution
		losses
	olootrioity	reduction to
	ciectnolly	7.5% by 2010
	gas and	10,86 Mtep for
clients	electricity	2016
+	1	
_		
All		Savings until 2015 in transport - 0,87 Mtep , Residential and Services - 0,58 Mtep, Industry 0,54 Mtep , Public 63 ktep
None		
Residential	Gas and Electricity	185 million lifetime tonnes of CO2 (2008- 2011)
1		
-	1	
-	1	
		1
N		
N	N	N
+		
- NI	N	N
IN	IN	N
	1	1
_		
	All All electricity distribution supplier with more than 50.000 clients  All	All

Italy Energy savings for gas: 1,9 Mtoe/year (2010), 2,2 Mtoe/y (2011) and 2,5 Mtoe/y (2012)

Energy savings for electricity: 2,4 Mtoe/year (2010), 3,1 Mtoe/y (2011) and 3,5 Mtoe/y (2012)

America			
	Sector		Target &
Country	concerned	Fuel	period
Argentina			
Brazil			
Canada			
Chile			
Colombia			
Costa Rica			
Mexico			
Peru			
USA			
Venezuela			
Bolivia			
El Salvador			
Trindidad & Tobaggo			
Paraguay			

Asia			
	Sector		Target &
Country	concerned	Fuel	period
Australia			
China			
Hong Kong (China)			
India			
Indonesia			
lawar.			3% annual reduction in
Japan	All	All	energy intensity
Republic of Korea			
Malaysia			
Mongolia			
Myanmar			
New Zealand			
Philippines			
Singapore			
Sri Lanka			
Taiwan, China			
Thailand			
Vietnam			

Japan relative to last year (5 year average)

Middle East			
Country	Sector concerned	Fuel	Target & period
Iran			
Israël			
Jordan			
Kuwait			
Lebanon			
Yemen			
Syria			

Africa			
Country	Sector concerned	Fuel	Target & period
Algeria			
Botswana			
Cote d'Ivoire			
Egypt			
Ethiopia			
Ghana			
Guinea Bissau			
Kenya			
Mali			
Mauritanie			
Morocco			
Nigeria			
Senegal			
South Africa			
Tanzania			
Tunisia			

# Voluntary agreement with energy efficiency / savings targets (VA) Number of branches / companies concerned by sector

		Housing			
	Industrial	companies /	Commercial	Public	Transport
Country		associations	buildings	buildings	companies
Austria	compagnics	d330Cldt10113	bullulligs	bullulligs	companies
Belgium					
Bulgaria					
Cyprus					
Czech					
Republic					
Denmark					
Estonia					
Finland					
France	VA (26)			VA	VA
Germany	VA (20)			VA	V A
Greece					
Hungary					
i iuligai y	122				
Ireland	companies				
Italy	companies 1				
Latvia	-				
Lithuania					
Luxembourg Malta					
Netherlands	<del> </del>				
Poland	<del> </del>				
Portugal	800				
Romania	None	None	None	None	None
Slovakia	None	None	None	None	None
Slovania	VA				
Spain	VA 7				
Sweden	l				
	VA VA				
UK					
	1 branch				
	(pulp &				
Norway	paper)				
Croatia					
Iceland	1/2	Nisas	1/4		N
Serbia	VA	None	VA	VA	None
Montenegro					
Switzerland					
Turkey				-	
Russia	<u> </u>		<u> </u>	<u> </u>	<u> </u>

UK

France Voluntary concerned 26 industrial companies, all administrative buildings (10% energy savings in 2008) and 10

transport companies (-90 ktCO2 in 3 years)
52 industrial sectors and about 10,000 facilities, grouped into around 5,000 target units (Targets are set with individual

sectors)

Slovenia Voluntary concerned 250 industrial companies (Target: at least 2.5% reduction of specific CO2 emissions in period

2005 - 2008. The companies under VA are not obliged to pay C02 tax)

Ireland 14% of industry TPER. This program is the Large Industry energy network (LIEN) run by SEI.

Italy Ministry of Environment and the Union of Italian manufacturers of two- and three-wheeled vehicles (ANCMA)

Voluntary agreement in 7 branches (Chemical; Food - drink and tobacco; Iron and steel; Non ferrous metals; Non

**Spain** metallic minerals; Paper and board; Textile)

A					
America					
		Housing			
	Industrial	companies /	Comercial	Public	Transport
Country	compagnies	associations	buildings	buildings	companies
Argentina					
Brazil					
Canada					
Chile					
Colombia					
Costa Rica					
Mexico					
Peru					
Uruguay				36	
USA					
Venezuela					
Bolivia					
El Salvador					
Trindad &					
Tobaggo					
Paraguay					

Asia					
		Housing			
	Industrial	companies /	Comercial	Public	Transport
Country	compagnies	associations	buildings	buildings	companies
Australia					
China					
Hong Kong (China)					
India					
Indonesia					
Japan	VA				
Republic of					
Korea	VA		VA		
Malaysia					
Mongolia					
Myanmar					
<b>New Zealand</b>					
Philippines					
Singapore					
Sri Lanka					
Taiwan,					
China					
Thailand	VA		VA		
Vietnam					

Japan Voluntary agreement concerned more than 1100 industrial companies, with different targets mong subsectors

Korea Voluntary agreement concerned 1355 industrial companies and 190 commercial buildings

**Thailand** Voluntary agreement concerned 765 industrial companies and 122 commercial buildings (target for industry : 8614 toe/year and 810 toe/year for commercial buildings)

Middle East					
		Housing			
	Industrial	companies /	Comercial	Public	Transport
Country	compagnies	associations	buildings	buildings	companies
Iran					
Israël					
Jordan					
Kuwait					
Lebanon	VA		VA	VA	
Yemen					
Syria					

**Lebanon**Voluntary agreement concern 7 industrial compnies, 11 commercial buildings and 4 public buildings with a (savings target : 20% of the final energy consumption)

Africa					
		Housing			
	Industrial	companies /	Comercial	Public	Transport
Country	compagnies	associations	buildings	buildings	companies
Algeria					
Botswana					
Cote d'Ivoire					
Egypt					
Ethiopia					
Ghana					
Guinea					
Bissau					
Kenya					
Mali					
Mauritanie					
Morocco					
Nigeria					
Senegal					
South Africa	VA		VA	VA	
Tanzania					
Tunisia	VA	VA			VA

#### VA South Africa

Voluntary agreement concerned 45 industrial companies, 1 commercial building and 1 public building Voluntary agreement with the South African Property Owners Association who represents 85% of the commercial buildings in the country. Department of Public Works is responsible for public buildings but have a funding problem.

#### VA Tunisia

Voluntary agreement concerned 390 industrial companies, 160 housing companies and 75 transport companies (target for industry: 395 ktoe til 2011; target for housing companies and transport companies : 20% each)