

TAKING
COOPERATION
FORWARD



Block 2: Management of Energy Plans



Module 2.1. Development of Energy Plans



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The module explains the energy planning and the energy pathways in achieving the EU targets



- Energy planning
- National Energy Plans
- Energy planning in the project partners regions
 - Level of implementation
 - Thematic focus on energy plans
- Examples of measures



The basis for energy planning in EU is given by the 2020 Climate and Energy Strategy. The EU Member States are presenting their energy target pathways into their energy plans.

Under the Energy Efficiency Directive, the EU countries are required to submit their National Energy Action Plans every three years.



The 2020 Climate and Energy Package consists a set of binding legislation to ensure that the EU meets its climate and energy targets for the year 2020. The package sets three key targets that include:

- 20 % cut in greenhouse gas emissions (from 1990 levels)
- 20 % of EU energy from renewables
- 20 % improvement in energy efficiency

The targets are translated by EU Member States into their energy plans, which are developed at national, regional, and local level.



National level: The national energy plans transpose EU-wide targets into national energy frameworks and set basic conditions for development and implementation of regional and local energy plans.

Regional level: In countries with a higher degree of autonomy of regions, regional energy planning is the most important level. While at national level, only general goals (usually in a form of energy strategy/policy) are set, each region can autonomously decide how to achieve these goals. On the other hand in countries with centralized administration and governance, regional energy planning plays less important role and several measures and activities are already set in national plans. These measures and activities should be respected by regional plans.

Local level: Some cities and municipalities develop their local energy plans, for instance SECAP (Sustainable Energy and Climate Action Plan) plans under Covenant of Mayors initiative. These plans are also implemented autonomously, but should refer to regional and national energy plans and their goals.



The European Member States create their own energy pathways to achieve the EU targets.

The institutional stakeholders operating with the sectoral energy strategies are responsible to arrange the top assignments (policy measures and activities) based on comprehensive analysis of external and internal conditions affecting the country's energy.

These measures, activities, and activities in the future are comprised and elaborated in the Energy Plans.



Under the Renewable Energy Directive, the EU countries are required to submit their National Action Plans that cover:¹

- individual renewable energy targets for the electricity, heating and cooling, and transport sectors
- the planned mix of different renewable technologies
- national policies to develop biomass resources
- measures to achieve national targets including cooperation between local, regional, and national authorities
- measures to ensure that biofuels used to meet renewable energy targets are in compliance with the EU's sustainability criteria
- planned statistical transfers or joint projects with other countries



ENERGY PLANNING IN THE PROJECT PARTNERS REGIONS

In partner regions, energy planning plays an important role in the overall planning policy both at national level and at regional level.

The partners identified relevant energy planning documents (strategies and action plans), which were analyzed from different points of view, including:

- level of implementation
- motivation
- thematic focus
- industry involvement
- support mechanisms used
- evaluation processes



Energy strategies and plans in partner regions

Country	National plans	Regional plans	Local plans
Italy (Veneto)	1	1	
Italy (Emilia-Romagna)	1	1	Yes
Germany	1	2	
Austria	1	1	
Poland (Lower Silesia)	3	2	Yes
Poland (Lubelskie)	3	2	Yes
Hungary	1	1	Yes
Czech Republic	3	1	Yes
Croatia	2	1	Yes

Note: For local energy plans, the table does not indicate a concrete number of plans, but only their existence (if deemed important by the partner). Usually, they are implemented in a form of SECAP under the Covenant of Mayors.



Energy strategies and plans in partner regions

In countries with centralized administration and governance (e.g. Croatia, Czech Republic, Hungary), the core of energy planning lies at national level.

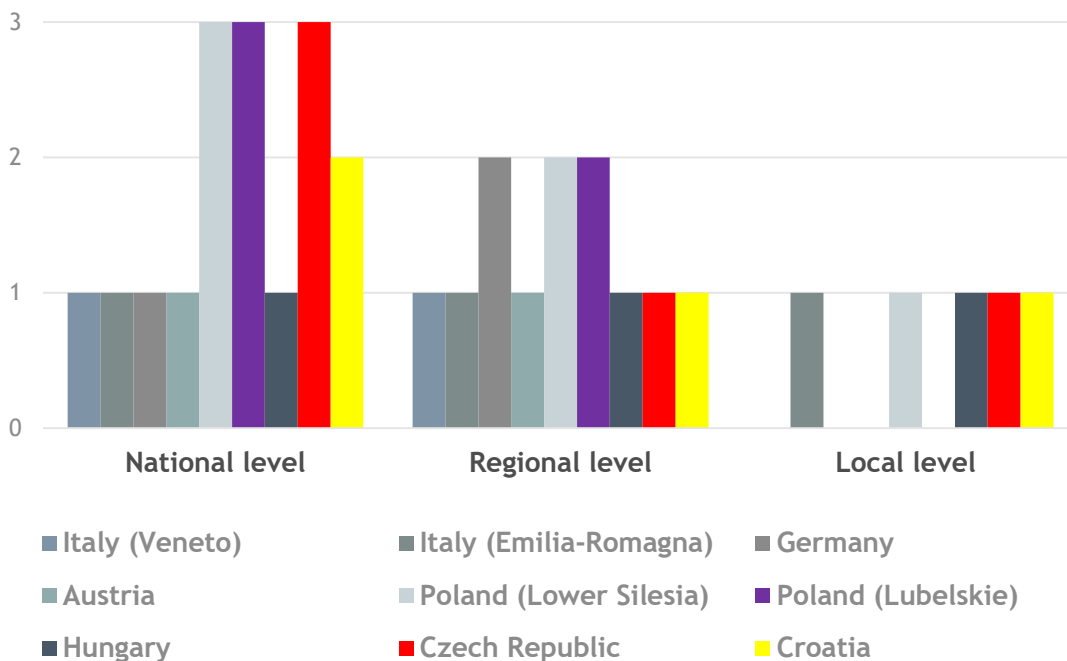
In countries with high level of decentralization (e.g. Italy, Germany), the participating regions develop and implement their regional energy plans, while at national level, there exist energy strategies of a more general nature.

In some regions are identified energy plans on a local level (i.e. municipalities) as an important player in energy planning.



LEVEL OF IMPLEMENTATION

Energy strategies and plans in partner region



Motivating factors in implementation of Regional Energy Plans:

- systematic planning of energy efficiency and renewable energy sources development
- planning of energy supply and demand
- environmental protection (reduction of environmental impacts from energy generation and consumption)
- economic and social development of a region
- creating business opportunities and jobs
- funding from Operational Programs (REP as a basis document for OP)



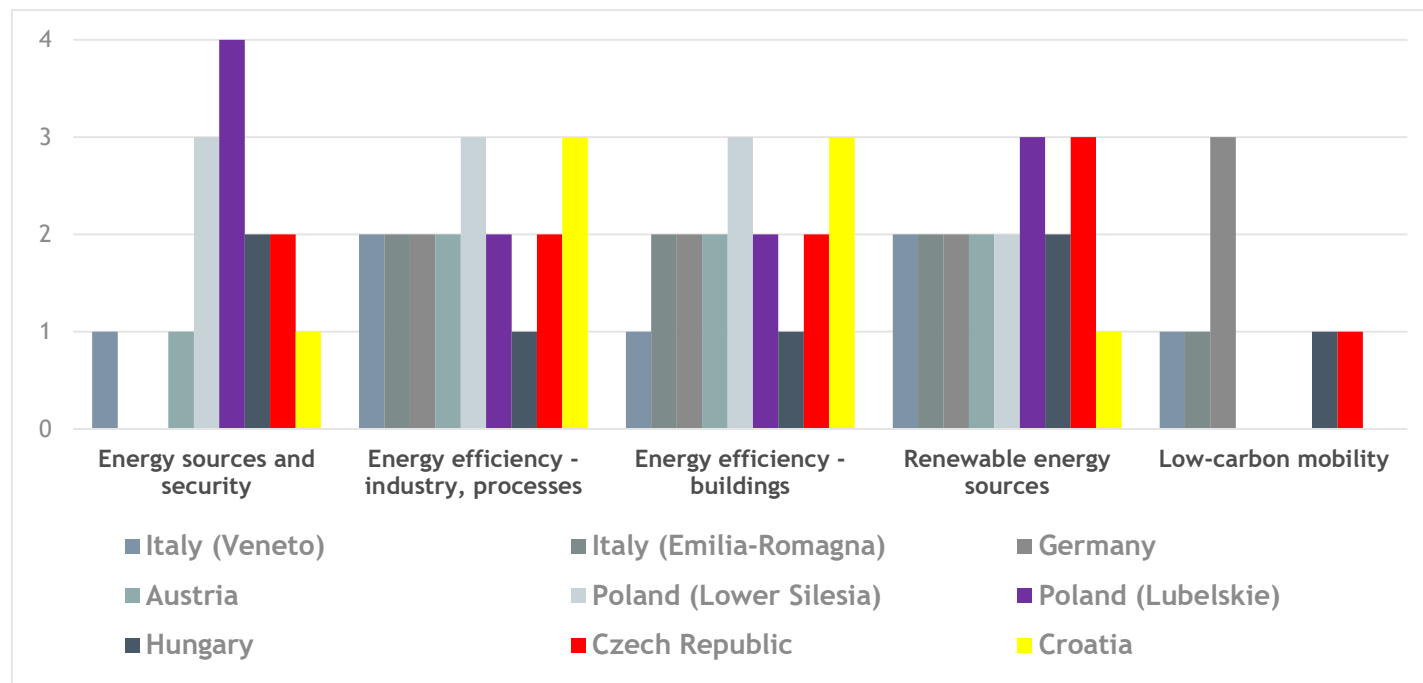
THEMATIC FOCUS OF ENERGY PLANS

Country	Energy sources and security	Energy efficiency in industry	Energy efficiency in buildings	Renewable energy sources	Low-carbon mobility
Italy (Veneto)	1	2	1	2	1
Italy (Emilia-Romagna)		2	2	2	1
Germany		2	2	2	3
Austria	1	2	2	2	
Poland (Lower Silesia)	3	3	3	2	
Poland (Lubelskie)	4	2	2	3	
Hungary	2	1	1	2	1
Czech Republic	2	2	2	3	1
Croatia	1	3	3	1	

Note: In the table, number of strategic documents that cover the relevant topic is indicated. (For local energy plans, the table does not indicate a concrete number of plans, but only their existence.)



THEMATIC FOCUS OF ENERGY PLANS



Energy plans (and strategies) are documents that fully address the most important areas of a low-carbon economy. In all partner regions, energy efficiency in buildings and industry is covered as well as planning of development of renewable energy sources.

Several energy plans also deal with the issue of energy security in relation to projected energy demand and so necessary energy supply. The issue of low-carbon mobility is covered only by a few energy plans.



Examples of measures that are implemented in the National Action Plans of the project partners countries:

- **Energy sector**

- promotion of renewable and alternative methods of heat generation
- promotion of green electricity generation for network based on renewable energy sources
- increase competitiveness of district heating system

- **Energy in Industry**

- promotion of energy efficiency (reduction of energy consumption)
- reduction of coal consumption - priority use of gaseous fuels and biomass

- **Energy in Buildings**

- energy renovation and insulation of public and private buildings
- replacement of solid fuel boilers by gas boilers, district heating and electricity
- decrease of fossil fuel consumption
- replacement of large household appliances



Examples of measures that are implemented in the National Action Plans of the project partners countries:

○ Transport

- replacement of high emission vehicles with new technology vehicles (hybrid, clean-fuel, and e-vehicles)
- electricity, hydrogen and natural gas supply for transport
- increase the use of local public transport
- extending the pedestrian zones (promote cycling and walking)

○ Agriculture

- prohibition of combustion of agricultural waste on fields
- modernization of the domesticated animal farms
- development of the agricultural water management sector
- forestry sector: sustainable forest management and use of wood, exploiting the potential of natural forest development protection of peatlands, conservation of permanent grassland



INFORMATION ON NATIONAL LEVEL IN PROJECT'S PARTNER REGIONS



AUSTRIA

Source of information	Link / PDF / Video document
Burgenländische Energiestrategie 2020 (de) [pdf]	http://www.tobgld.at/uploads/tx_mddownloadbox/Energiestrategie_Burgenland_2020_01.pdf



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CROATIA

Source of information	Link / PDF / Video document
Energy Efficiency Act (Official Gazette 127/14), 2014 (cr)	https://narodne-novine.nn.hr/clanci/sluzbeni/2014_10_1_27_2399.html
Energy Development Strategy of the Republic of Croatia (cr)	https://narodne-novine.nn.hr/clanci/sluzbeni/2009_10_1_30_3192.html
Third National Action Plan for Energy Efficiency for the period 2014-2016 / Treći nacionalni akcijski plan energetske učinkovitosti za razdoblje 2014-2016 (cr) [pdf]	https://www.mingo.hr/public/3%20Nacionalni_akcijski_plan.pdf
Fourth National Energy Efficiency Action Plan of the Republic of Croatia for the Period from 2017 to 2019 [pdf]	https://ec.europa.eu/energy/sites/ener/files/hr_neeap_2017_en.pdf



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CROATIA

Source of information	Link / PDF / Video document
Strategy for Regional Development of the Republic of Croatia by the end of 2020	https://razvoj.gov.hr/
County Development Strategy for Istrian County by 2020 / Županijska razvojna strategija za Istarsku županiju do 2020 (cr) [pdf]	http://www.ida.hr/fileadmin/sadrzaji/datoteka/Opci_akti/Zupanijska_razvojna_strategija_do_2020._godine.pdf
Istrian County Energy Efficiency Action Plan for the Period 2017 - 2020 / Akcijski plan energetske učinkovitosti Istarske županije za razdoblje od 2017. do 2019. godine (cr) [pdf]	https://www.istra-istria.hr/fileadmin/dokumenti/novosti/sjednice_skupstine_2013/38/38-25-En_ucinkovitost_IZ_2017_2019.pdf
Istrian County Annual Energy Efficiency Plan for 2017 / Godišnji plan energetske učinkovitosti Istarske županije za 2017. godinu (cr)	https://www.istra-istria.hr/index.php?id=4454



INFORMATION ON NATIONAL LEVEL IN PROJECT'S PARTNER REGIONS



CZECH REPUBLIC

Source of information	Link / PDF / Video document
Státní energetická koncepce České Republiky, 2014 (cz) [pdf]	https://www.mpo.cz/assets/dokumenty/52841/60959/636207/priloha006.pdf
Aktualizace Národního akčního plánu energetické účinnosti ČR, 2017 (cz) [pdf]	https://ec.europa.eu/energy/sites/ener/files/documents/cz_neap_2017_cz.pdf



INFORMATION ON NATIONAL LEVEL IN PROJECT'S PARTNER REGIONS



GERMANY

Source of information	Link / PDF / Video document
Climate Action Plan 2050- Germany's long-term emission development strategy	https://www.bmu.de/en/topics/climate-energy/climate/national-climate-policy/greenhouse-gas-neutral-germany-2050/
Energy and Climate Protection Programme 2014-2020 - Leipzig Makes Plans for Sustainability	https://english.leipzig.de/environment-and-transport/leipzigs-climate-protection-programme
Official Website for the City of Leipzig / Stadt Leipzig (de)	https://www.leipzig.de/
Action Program for Clean Air, BMVI (Bundesministerium für Verkehr und digitale Infrastruktur) Support	https://www.now-gmbh.de/en/news/press/bmvi-supports-municipalities-in-switch-to-alternative-drives-via-an-immediate-action-programme-for-clean-air



INFORMATION ON NATIONAL LEVEL IN PROJECT'S PARTNER REGIONS



GERMANY

Source of information	Link / PDF / Video document
SAENA (Saxony Energy Agency)	http://www.saena.de/
DENA (German Energy Agency) - general information, documents and trainings, events, workshops (de)	https://www.dena.de/en/home/
Association of German Municipalities for Energy Topics / Starke Kommunen mit Erneuerbaren Energien (de)	www.kommunal-erneuerbar.de
NEEAP 2017 Zweiter Nationaler Energieeffizienzaktionsplan der Republik sterreich 2017 gemäß Energieeffizienzrichtlinie 2012/27/EU (de) [pdf]	https://ec.europa.eu/energy/sites/ener/files/documents/at_neeap_2017_de.pdf



INFORMATION ON NATIONAL LEVEL IN PROJECT'S PARTNER REGIONS



HUNGARY

Source of information	Link / PDF / Video document
National Energy Efficiency Action plan IV, Hungary [pdf]	https://ec.europa.eu/energy/sites/ener/files/documents/hu_neeap_2017_en.pdf
Hungarian National Energy Strategy 2030 [pdf]	http://2010-2014.kormany.hu/download/7/d7/70000/Hungarian%20Energy%20Strategy%202030.pdf
Climate and Energy Policy in Hungary - article [pdf]	https://www.researchgate.net/publication/272647507/download
South - Transdanubian Regional Energy Strategy [pdf]	http://www.deldunantul.com/sites/default/files/south_transdanubian_regional_energy_strategy_en_summary.pdf



INFORMATION ON NATIONAL LEVEL IN PROJECT'S PARTNER REGIONS



ITALY

Veneto (LP)

Source of information	Link / PDF / Video document
PAE Italian Energy Efficiency Action Plan [pdf]	https://ec.europa.eu/energy/sites/ener/files/documents/it_neeap_2017_en.pdf
Regional Energy Plan - Renewable Sources, Energy Saving and Energy Efficiency documents and information (it)	http://www.regione.veneto.it/web/guest;jsessionid=A4B80B26752DD6132B4FE2F42E7E03AE.liferay01



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ITALY

Emilia Romagna

Source of information	Link / PDF / Video document
PAE Italian Energy Efficiency Action Plan [pdf]	https://ec.europa.eu/energy/sites/ener/files/documents/it_neeap_2017_en.pdf
National Energy Strategy 2017-SEN 2017	http://www.lse.ac.uk/GranthamInstitute/law/national-energy-strategy-2017-sen-2017
Italy's National Energy Strategy 2017 - brochure [pdf]	http://www.sviluppoeconomico.gov.it/images/stories/documenti/BROCHURE_ENG_SEN.PDF
Main objectives of the Energy Plan on Local level / Strumenti operativi (it)	http://energia.regione.emilia-romagna.it/entra-in-regione/politiche-europee/patto-dei-sindaci-2/strumenti-operativi
Regional Energy plan: components and data sources for opinion mining. [pdf]	https://cordis.europa.eu/docs/projects/cnect/7/288147/080/deliverables/001-D91.pdf
Tool-kit for Energy Efficiency in Region Emilia-Romagna, Energy Regio [pdf]	[pdf]



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POLAND

Legnica

Source of information	Link / PDF / Video document
Energy Policy of Poland until 2030 [pdf]	https://climateobserver.org/wp-content/uploads/2014/09/Poland_EPP-2030-2009.pdf
Energy Policy of Poland until 2030 - presentation [pdf]	http://www.koalicjaklimatyczna.org/theme/UploadFiles/konferencyjne/elzbieta_wroblewska_1.pdf
National Energy Efficiency Action Plan for Poland 2017 [pdf]	https://ec.europa.eu/energy/sites/ener/files/pl_neea_p_2017_en.pdf
National Energy Efficiency Action Plan for Poland 2017 (pl) [pdf]	https://www.gov.pl/energia/krajowy-plan-dzialan-dotyczacy-efektywnosci-energetycznej



INFORMATION ON NATIONAL LEVEL IN PROJECT'S PARTNER REGIONS



POLAND

Legnica

Source of information	Link / PDF / Video document
Energy Development Strategy on the Lower Silesia 2011 / STRATEGIA ROZWOJU ENERGETYKI NA DOLNYM ŚLĄSKU (pl) [pdf]	http://www.energia.pwr.wroc.pl/publikacje/1_Ropuszynska_Surma.pdf
Development Strategy of Lower Silesian Voivodeship 2020 [pdf]	http://www.umwd.dolnyslask.pl/fileadmin/user_upload/Rozwoj_regionalny/SRWD/SRWD_2020_wersja_ang..pdf
Strategia Rozwoju Województwa Dolnośląskiego 2020 (pl) [pdf]	http://www.umwd.dolnyslask.pl/fileadmin/user_upload/Rozwoj_regionalny/SRWD/SRWD_2020-final.pdf
Voivodship policy in the field of energy efficiency for the years 2014-2020 - presentation (pl) [pdf]	http://cieplej.pl/imgturysta/file/doe/DOE%202012/2Dzien/17_CIURLA_Polityka_wojewodzka_na_la_ta_2014_2020.pdf



INFORMATION ON NATIONAL LEVEL IN PROJECT'S PARTNER REGIONS



POLAND

Lubelskie

Source of information	Link / PDF / Video document
National Action Plan on Energy Efficiency (pl)	https://www.gov.pl/energia/krajowy-plan-dzialan-dotyczacy-efektywnosci-energetycznej
National Energy Efficiency Action Plan for Poland 2017 [pdf]	https://ec.europa.eu/energy/sites/ener/files/pl_neeap_2017_en.pdf
Regional Operational Program of the Lubelskie Voivodeship 2014-2020 / Regionalny Program Operacyjny Województwa Lubelskiego na lata 2014-2020 (pl)	https://rpo.lubelskie.pl/dokument-20-regionalny_program_operacyjny.html
Priority axes ROP VL 2014-2020 / SZCZEGÓŁOWY OPIS OSI PRIORYTETOWYCH RPO WL NA LATA 2014-2020 (pl)	https://rpo.lubelskie.pl/dokument-22-szczegolowy_opis_osi_priorytetowych_rpo.html
Regional Operational Program of the Lubelskie Voivodeship 2007-2013 [pdf]	http://www.npf.rpo.lubelskie.pl/widget/file/get/1258721590743050.pdf/



<https://ec.europa.eu/energy/en/topics/renewable-energy/national-action-plans>

<https://www.bmu.de/en/topics/climate-energy/climate/national-climate-policy/greenhouse-gas-neutral-germany-2050/>

https://ec.europa.eu/energy/sites/ener/files/documents/it_neeap_2017_en.pdf

https://ec.europa.eu/energy/sites/ener/files/documents/hu_neeap_2017_en.pdf

https://ec.europa.eu/energy/sites/ener/files/hr_neeap_2017_en.pdf

<https://ec.europa.eu/energy/sites/ener/files/ener-2017-00343-00-00-en-tra-00.pdf>

https://ec.europa.eu/energy/sites/ener/files/pl_neeap_2017_en.pdf



Thank you for your attention

