DRAFT NGO POSITION PAPER: ENERGY[1]

1. BACKGROUND AND METHODOLOGY

Thematic Papers are developed for each Annual Meeting (AM) of the EF project to prepare more targeted sessions with the European Commission and explore topics of concern to NGOs in the enlargement process. At the 2010 AM, the NGOs selected **'Energy'** and 'Transport' as thematic topics for the 2011 AM. It was also agreed that the papers will be developed in the form of **common position papers** that can be presented to the European Commission and could also be useful for a broader audience at the national and regional level.

The Energy paper[2]was jointly prepared by the NGO representative and Thematic Expert. As a first step to developing these papers, NGOs discussed the two thematic topics during Preparatory Meetings held in February - April. Based on these discussions, draft versions of the papers were developed and presented at the Regional Meeting in May. At this meeting, NGOs were given a further opportunity to discuss and provide additional input to the thematic papers. Revised versions of the thematic papers were then circulated among the NGOs for review and subsequently finalised based on the additional input received. For the energy paper, input was received from NGOs in Bosnia and Herzegovina, Croatia, FYROM, Kosovo[3] , Montenegro, Serbia and Turkey. This paper presents the NGOs position paper and the opinions expressed are NGO opinions.

2. REGIONAL ISSUES

In most countries in the region there is a **monopoly in the energy market** that results in distortions, corruption in decision-making and long-term problems in modernization, the introduction of state of the art technologies and the retention of out-dated energy concepts which in the long run will cause the countries to fall behind and economically and socially and can lead to economic, social and in the end political instabilities in countries of the region.

Such problems cannot be solved by "diversification of supply of liquid hydro carbonates" or by using existing local coal deposits (valid for almost all countries in region) because this is only "pumping" fiscal deficits, growing damages on the environment from usage of fossil fuels, bringing significant parts of society on the brink of energy poverty and growing structural imbalances of economies in the region. One could argue that the real hole in budgets is not social spending, health care spending and pensions but the enormous percentages of national budgets spent on imported fuels that are inefficiently used. A striking characteristic of national energy policies is that **all of countries are planning to become regional leaders in energy production and export of energy.**

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[1]NGO position paper prepared for the Environmental Forum Annual Meeting, 25-27 September 2011, Brussels. This paper represents the opinions of NGOs as gathered during the preparation of this paper.

[2]This paper is linked and interconnected with the paper on Transport, as well as papers developed and discussed at previous AMs: Climate Change, IPPC and SEA.

[3]under UNSCR 1244/99

This is partially a problem in the approach of political elites which are under pressure from industrial and energy corporations as well as support from IFIs and regional Energy community agreement which supports exploration and utilization of all "economically acceptable" production capacities[4] regardless of which resources they come from and at what cost (burden) on local communities and national economies. Due to this approach, most of communities directly affected by plans are strongly opposing their implementation and are considered from the side of business elites, national authorities and IFIs as opposing the development of economy and a threat to energy security. This has led to instabilities and political disturbances which could be avoided by the involvement of communities, NGOs and other interested local and national stakeholders in concrete plans as well as general overarching plans and programs.

Plans and programs in the region are not scrutinized in relation to the climate targets of the EU and globally nor with respect to their social, economic and environmental impacts. A systemic problem in all countries in the region including Turkey is that **SEAs of programs and policies are not produced** and future scenarios of needs and potentials of fulfilling these needs from locally based production are not assessed, thus leading to the proposal of out-dated, traditional and ever more fossil fuels dependent plans. It is therefore not strange that Serbia, Montenegro and Bosnia and Herzegovina continue to plan same capacities like it did in the mid-1970s. Plans for the development of national production capacities are misled by industrial and business elites that see their interest in producing even more dependency on imported fossil fuels or producing large scale domestic quantities of dirty energy.

In the region to date, EE and RES have not attracted significant attention among national and regional energy authorities and decision makers. Despite the availability of some funds for EE and RES, especially from IFIs and the EU, to date there have been a very limited number of projects that have been financed in these areas given the lack of credible projects which are prepared and ready for financing. **Significant bureaucratic obstacles** are another major problem for the implementation of RES or EE projects in region as is the lack of support from IFIs for local and national authorities in preparation of alternative scenarios and programs in the energy sector that would be a base for credible local and regional projects. **In this sense, the Energy Community can be considered to have failed to support the green transition of countries by allowing national authorities to champion traditional fossil fuels based projects**.

3. REGIONAL POSITION

The major challenges for the region in relation to this sector in their strategic goal to join EU are to achieve a decarbonized energy sector, eliminate inefficient fossil fuel subsidies, and to improve energy efficiency and energy security. These require a policy mix containing both demand and supply-side measures. Some of the most important issues relate to **energy security**- this is one of the most important points from the side of national governments; **socio-economic impacts** of energy production and consumption; the **base-load approach** to energy production and consumption

[4] When speaking about economically viable we are clearly pointing to the conservative concept of economically viable which is in most of cases not aiming to internalize negative social, environmental and economical "externalities" of production

/decentralization, localization of production and consumption; and **alternative scenarios** for development of energy sectors in the region. Other issues include: Renewable energy resources with sustainability criteria; models and instruments for the support of renewable energy sources (RES) and energy efficiency (EE); EE in housing, industry; Biomass; cumulative impacts (sustainability criteria) for new RES.

NGOs demand that the following sectors **should not be supported by Governments, IFIs or EU funds**:

- Coal and fossil fuels;
- Nuclear energy/ power plants and supporting infrastructure or facilities ;
- Biofuels (biomass production can be environmentally unsustainable and may compete with food demand thus its potential impacts must be carefully studied);
- Public support for gas utilization.

Adequate, integrated and reliable **energy networks /infrastructure** are a crucial prerequisite not only for EU energy policy goals but also for the EU's economic strategy. Competitiveness, security of supply and climate objectives will be undermined unless electricity grids are upgraded, obsolete plants are replaced by competitive and cleaner alternatives, and energy is used more efficiently throughout the whole energy chain. A fully interconnected European market will also improve security of supply and help stabilize consumer prices by ensuring that electricity and gas goes to where it is needed. European networks including, as appropriate, neighboring countries, will also facilitate competition in the EU's single energy market and build up solidarity among Member States. Permitting and cross-border cooperation must become more efficient and transparent to increase public acceptance and speed up delivery. Developing the huge renewables potential in Southern Europe will be impossible without **additional interconnections** within the EU and with neighboring /EU accession countries. The energy infrastructures planned today must be compatible with the longer term policy choices. The key for countries economic development, quality of life and EU integration are energy and transport networks which are fully integrated in European ones. The EU candidate and potential candidate countries in the process of adapting legislation to EU legislation have technologically outdated energy production facilities with high specific fuel consumption, low efficiency of energy transformation processes, and poor environmental performance.

The cross-border nature of energy supply security, energy and transport networks and environmental challenges highlights the crucial importance of regional cooperation. This includes the Southeast Europe Energy Community - **The Energy Community Treaty** (ECT)[5], covering Albania, Bosnia and Herzegovina, Croatia, Kosovo (under UNSCR 1244/99), the FYROM, the Republic of Moldova, Montenegro, Serbia and Ukraine. The Energy Community Treaty is a legally binding agreement which entered into force in July 2006 for all mentioned countries except Ukraine. The Secretariat is based in Vienna.

Recently, the European Commission welcomed the achievements of the Energy Community but warned of the risks of not addressing outstanding shortcomings and called for a radical change of

[5] http://www.energy-community.org/portal/page/portal/ENC_HOME/ENERGY_COMMUNITY

attitude to bring about market reforms in the countries. In the coming years a number of existing power plants will require replacement or rehabilitation, electricity networks and gas infrastructures need modernization and further development, energy efficiency and environmental standards have to be fully applied, and unexploited renewable energy potential put in use. The Commission intends to make financial assistance conditional on the effective implementation of the Energy Community *Acquis*, and to link good progress on the enforcement of the *acquis* to a smoother advancement in the accession discussions of the EU candidate countries or potential candidates. It is also important to point out the importance to meet the emission limit values (ELVs) given in the LCPD (large combustion plants Directive).

3.1. Areas of concern

The **consultation on the Energy Road Map to 2050** which took part in early 2010 was a good opportunity for *governments, expert groups and NGOs* of SEE countries to express their views and to formulate their interests in the future energy policy of the EU in its respect of integration of SEE energy markets, technological development of SEE energy structures and decarbonization of national energy sectors. However, **only a limited number of organizations and authorities from the SEE region took part in this consultation.** This may signal that SEE countries do not currently see that they have a right to express their views of crucial importance for future integration of this region in the energy market of EU, or that they are not really able to plan and implement policies that are not mutually exclusive and destructively competitive but rather supplementary in terms of mutual cooperation in for future energy and climate sustainability of their countries.

4. KEY REGIONAL PROPOSALS FOR ACTION

To overcome the identified challenges the following key actions are recommended: specific legislation, standardization and interoperability, data protection, infrastructure investments, demonstration, R&D and innovation projects, as well as the promotion of new skills.

Involvement of IFIs in programming and implementation of energy related programs

- IFIs should give **special attention to full implementation of horizontal legislation especially SEA, EIA and ESPOO Convention in their operations in the energy sector**. This should be of specifically importance to the EC to ensure that IFIs, and especially EBRD and EIB fully comply with SEA and ESPOO Conventions and that the maximum degree of public participation in all phases of program, policies and project work is ensured.
- IFIs should **not support any fossil fuel or nuclear projects** (including all phases and sub phases of such projects) including reconstructions and revitalizations with the aim of prolonging period of usage of such projects and capacities.
- IFIs should avoid investments in **large hydro power plants and small hydro power plants** which have a significant identified cumulative impact. IFIs should **avoid energy grab projects and large scale "new renewable" projects** which have a clear aim of producing capital for the export of energy to other markets without clear benefits for the market and environment of host countries.

- IFIs should focus on **decentralization and small scale energy production** as well as the "NEGAWAT" approach of energy efficiency and support for small communities and remote areas to establish sustainable energy structures.
- IFIs should allow easier access to capital for projects that are trying to explore and utilize EE potentials in housing sector using local resources for cogeneration (district heating) and to industry which is suffering from high levels of poor efficiency. Therefore, IFIs should explore ways and channels of how to support such projects even before perfect conditions for investment in RES and EE are put in place in whole region.
- IFI should increase support to local communities to enable the **development of local urban transport structures and capacities**, in particular infrastructure that will enable diversification of non-motorized and non-fossil fuels based transport means.
  IFIs should also provide strong support in the form of **technical assistance to** local and national authorities in the planning and implementation of programs in RES, EE and sustainable urban transport.

Role of EU – To properly address public concerns and secure energy

A challenging role for the EU is **to accommodate public opinion in the strategic energy planning**.
There was a considerable divergence in opinions among NGOs as to the best way to decarbonise the energy sector. EE should be pursued along the full supply chain including power generation, cogeneration, district heating and actions on the demand side. The importance of EE in buildings which represent 40% of EU energy use was underlined. The utilization of offsets in other regions of the world through the *Clean Development Mechanism* and *Joint Implementation* to complement emission trading was also advocated. There is a broad consensus among NGOs on supporting technology and innovation and on extension of the Strategic Energy Technology Plan beyond 2020.

National Governments

National governments have **to show commitments to EU accession through implementation of laws, and adopt on time new developments in EU**.
Infrastructure reform and development present a major challenge to South East Europe, considering their limited resources and administrative capacities. Strong energy regulatory authorities are needed, with enough powers, resources and independence to ensure non-discrimination, effective competition and efficient operation of the energy market.

Civil Society Organizations

As called for in the consultation on the future EU Energy Strategy there is a need to advocate voice of CSOs, especially environmental NGOs. The role for education and media in driving behavioural change (energy saving) and increasing public understanding or acceptance of certain technologies and thus there is a role for CSOs in this area.

5. KEY NATIONAL ISSUES

5.1. Country issues

Albania

Albania is exposed to energy grab from EU countries interested in developing projects that will serve as export to EU Member States (e.g. Italy) and to the EU market. Albania needs to protect its interest from misuse of energy production and damages from the energy production. The Albanian public is considering projects to build new production capacities in coastal areas as not sustainable and not acceptable. To a large extent the Albanian public is calling on the EC, IFIs (WB, EBRD and EIB) and the national government to restart the consultation process to ensure that principles of sustainable development are followed and consultations and alternatives are considered. Furthermore, the Albanian public is calling on all these actors to fully follow the obligations of the Aarhus Convention and to stop considering and providing finance for such projects until all preconditions are fulfilled.

Serbia

- Most of the problems in the energy sector in Serbia arise from market distortions caused by the monopoly position of the Electric Company of Serbia, Oil Company of Serbia and Gas Company of Serbia. These companies actively influence and distort the decision-making capacity of the government and its agencies in planning the future energy development of Serbia. This is leading to large levels of corruption in companies as well as in the whole system. Their national champion position is also leading to a very formal approach to RES and EE potentials of Serbia with very low levels of support for these sectors. There are however some RES projects on the agenda that are more in line with the energy grab agenda of foreign multinationals or national companies of those countries where foreign investors are trying to build unsustainable RES projects that will serve as export resources to the EU, for "feed- in-tariffs" and support the profitability of those companies with mostly negative consequences on the environment in Serbia.
- The development of the energy sector is not submitted for SEAs and these plans are not open to wide public consultations thus leading to unsustainable development patterns.
- Nuclear energy is becoming acceptable for Serbian authorities despite existing law prohibiting such activities and the active opposition by significant parts of Serbian society.
- One important problem in this regard is the lack of involvement of environmental CSOs in dialogue, decision making, EU funds programming etc. Moreover, the Government does not recognize environmental organizations as important stakeholders in decision-making processes. Environmental CSOs have to improve their capacities and coordination in order to have stronger role in EU accession processes.
- Capacities for implementation of legislation on national and local level are missing (e.g. Law on strategic environmental assessment).
- ''Business as usual'' approach is environmental field is problematic.

Kosovo[6]

- Lack of air quality monitoring
- No significant progress in industrial pollution control and risk management

[6] under UNSCR 1244/99

- Significant lack in environmental capacity (horizontal and vertical coordination) of Kosovo authorities
- In energy sector most important problems are in power (electricity) billing and collection.
- Lack of further consideration of RES and EE potentials exploration and utilization
- Kosovo still considers its energy future as completely locked into exploration and utilization of significant coal deposits, which in the long run is against Kosovo's strategic plans to become a member of the EU due to EU targets for reduction and phasing out of coal and other fossil fuels and its GHG emission reduction targets.
- At the same time Kosovo is not using any of its RES or EE potential despite some progress made in the assessment of Kosovo's potentials in these areas. Supportive mechanisms and legislation for RES and EE are also not currently in place.

Croatia

- The Ministry for the Environment recently published information that the development of the Operational Programme "Environment and Energy" has started, and presented the list of projects to be potentially funded from the Cohesion and Structural Funds in 2013.
- As the National Strategic Reference Framework[7] recognizes "Environment protection and sustainable energy use" as a thematic priority, one would expect that the list of projects contains number of projects promoting use of renewable energy and energy efficiency.
- The indicative list of projects (213 in total) contains 156 "waste management" type projects, mostly landfill remediation; 39 "water management" type projects; 13 "nature protection" type projects; 4 "energy" type projects and 1 "air protection" type project. The number of projects in the different areas indicates the priorities of the Government and the influence of water and waste "management" business sectors.
- In addition to clear under representation of projects in the energy sector, an even larger problem related to the content. Despite the official goal of the OP "Environment and Energy" to "develop energy infrastructure with the highlight on sustainable use of energy and energy efficiency" which should be achieved with "support for transition from traditional to renewable energy sources and energy efficiency", nominated projects with the exception of one, clearly do not relate to the specified goal.

Montenegro

- The serious problem is implementation of energy legislation (The National Energy Development Strategy until 2025, The Energy Efficiency Startegy, The Energy Law and Energy Efficiency Law).
- In the frame of Energy Efficiency Law, the Government had not predicted establishing Energy Efficiency Fund and EE Agency.
- Implementation of EE is very poor.
- RES potential (solar, wind, biomass), with the execption of hydro-power potenial, are not fully utilised. There is also an absence of subsidies for EE and RES (except interventions for solar panels in Podgorica and Budva).

[7]A National Strategic Reference Framework (NSRF) establishes the main priorities for spending the EU structural funding a member state receives between 2007 and 2013. Each member state has its own NSRF. Adopting an NSRF is a new requirement of the Structural Funds regulations for 2007 to 2013. Each NSRF functions as a high-level strategy for the Operational Programmes in the respective member state. The document provides an overview of the economic strengths and weaknesses of the member state's regions, and sets out the approach to future Structural Funds spending across the member state.

- There is a lack of transaparency in the decision-making proces
- There is a high level of institutional constraints with regard to implementation of the environmental acquis, especially in sense of fragmentation of responsibilities and jurisdictions.
- A series of environment related by laws need to be adopted for the establishment of fully functioning environmental authorities.
- Inspection and enforcement of environmental regulations is extremely low.
- Particular attention needs to be given to issues related to the Environmental Liability Directive, especially regarding prevention and remediation of environmental damage.
- Implementation and enforcement of legislation in this field require considerable strengthening. In particular, environmental impact assessments, including due consideration of viable alternatives, need to be properly carried out wherever legally required and proper coordination among different authorities as well as with all stakeholders needs to be ensured.
- Montenegro is highly dependent on imported energy resources and in general fossil fuels represent a significant portion of energy in Montenegro's energy mix. This will lead to further destabilization of the macroeconomic situation and to further high levels of inefficiency especially in the industrial sector that spends enormous quantities of energy while producing enormous losses.
- The energy sector is like in other countries of the SEE region, highly distorted by the strong influence of interest groups that exert pressure on domestic decision-makers to plan future developments in line with their interest especially in terms of further subsidies for coal utilization, subsidies for gas and oil projects and subsidies for large scale "new renewable" projects that will have very negative impacts on the society and economy of Montenegro.
- Decentralization and democratization of energy sector for the sake of improving the social and economic status of local communities can be the only response to energy dependency of Montenegrin society.
- A special body responsible for implementing the EE national action plan should be established.

Turkey

- The main problem in the energy sector is the long term *Take or Pay*Natural Gas Purchase agreements made with Iran, Russia and other countries in the region.
- Energy Efficiency and Renewable Energy laws requested by EC are designed so that the implementation of energy end use efficiency and renewable energy is always delayed.
- Coal and Hydro Power Plant Licences are distributed by the Energy Market Regulation Board easily with the encouragement of the Ministry of Energy.
- Ministries of Energy and Environment try to convince everybody that nuclear energy is safe , economic and clean.
- The tax taken from petroleum products is one of the main sources of income of the Turkish State Budget.
- Obsolete Technologies are reallocated to Turkey from OECD countries.
- There is no political support for open and transparent long term planning.
- In view of turkish NGOs, the EC should advise the candidate countries to target 100% renewable energy as early as possible and discourage the obsolete technology transfer to candidate countries. For Turkey 100 % renewable energy is possible before 2020.
- IFIs should support only the best available end use technologies and best available renewable energy technology investments.

- The Turkish government should use MARKAL Turkey as an energy sector decision support tool and should cancel all tenders of coal, nuclear, hydro, petroleum power plants.

Bosnia and Herzegovina

- Energy development strategy for BiH is not developed
- Lack of plans and investments in renewable energy sources and energy efficiency
- Lack of consultations with public and local community in planning energy projects (especially applicable to small hydro power plants)
- EC standards on energy are not met in existing planning documents
- Plans for new thermal power plants (lignite and coal) would tremendously increase GHG emissions, and could become an obstacle for BiH accession to EU
- CSOs are not involved in monitoring of strategic documents that target energy issues
- Development strategy of the energy sector in BiH should be subject of SEA (financed through IPA)
- Bosnian NGOs have expressed their demands toward EU and IFIs:
    - EU/EC – to increase pressure on governments in the region to align legislation and goals with EU policies. Also, to allocate sufficient funds for CSOs and sustainable projects in the region.
    - IFIs - to stop financing unsustainable projects in energy and transport sectors and increase finances for railways, renewables, urban transport, energy efficiency, etc.

6. EXAMPLES (INCLUDING POSITIVE EXAMPLES) OF PROJECTS

Albania

- In this context we are specially pointing out highly controversial and dangerous projects of Thermo power plant in Vlora Bay and "Karaburun" Wind Park.
- Aarhus convention is accepted and need to be implemented in national and local level especially in such already listed cases.

Serbia

- EPS champion position is also leading to fully formal approach toward RES and EE potentials of Serbia, with very low levels of support for these sectors. There are however some RES projects on the agenda that are more in line with energy grab agenda of foreign multinationals or national companies of that countries where foreign investors are trying to build not sustainable RES projects that will serve as export resources toward EU and will serve for drainage of "fid- in-tariffs" and support of profitability of those companies with mostly negative consequences in sense of environment damages and growth of deficits of Serbia.
- In this sense we are point toward large wind farm projects, plans to build number of "small" hydro power plants on Ibar and Lim rivers and in protected area of "Stara Planina" mountain protected area and apart of these projects very significant are also plans to build large HPPs on Drina River despite of growing opposition of local communities and national NGOs.
- Energy sector development is not submitted for SEA and these plans aren't consulted in wide public consultations thus leading toward not sustainable development patterns.

- Nuclear energy is becoming acceptable for Serbian authorities despite existing law prohibiting such activities and active opposition of significant parts of Serbian society thus adding fuel to anyhow corrupted Serbian decision making processes

Kosovo[8]

- New Kosovo power plant project, which was not transparent to the public and that is oriented for the using resources by lignite burning, as well as planned capacity for this power plant.
- Self-initiatives for energy production from renewable sources –Hydro power plant in Zhur and the wind turbines in Golesh and several projects for energy efficiency funded by the European Commission and GIZ.
- Kosovo has adopted the Law on Environmental Impact Assessment and Strategic Environmental Assessment Law, which laws are harmonized with EU directives in the range of EIA 62% and SEA 90%. However it is obvious that real public participation in project and program lewel is lacking to large extent.
- The main problem regarding these laws is related to the implementation of these laws that is not is in satisfactory degree. Particularly worrying is the law providing to the public opportunity to take part in decision making, which is to large extent corrupted therefore making impossible for public to really take part.
- There is especially necessary for the establishment of an Energy Efficiency Agency and a Special Fund for Energy Efficiency and Renewable Sources.

Croatia[9]**:**

Indicative list of projects - Energy sector

1. *Power plant on biomass near Velika Gorica* **-** Construction of Biomass power plant in the industrial zone near the city of Velika Gorica. Planned installed capacity of the power plant is 20MW el. and 30MW heat; Beneficiary: HEP Obnovljivi d.o.o. Total cost: 59,5 million Euros
2. *Regional gas pipeline Kukuljanovo-Omišalj* **-** Construction of Regional gas pipeline Kukljanovo/Omišalj DN 500/100;Beneficiary: Plinacro d.o.o. Total cost: 23 million Euros
3. *Storage capacities for mandatory stock reserves for Crude Oil and Petroleum Products – Brižine* - Construction and reconstruction of storage capacities for Crude Oil and Petroleum Products 100.000m$^{3;}$ Beneficiary: The Croatian Compulsory Oil Stocks Agency (HANDA) Total cost: 30 million Euros
4. *Storage capacities for mandatory stock reserves for Crude Oil and Petroleum Products – Gaženica* - Construction and reconstruction of storage capacities for Crude Oil and Petroleum Products 50.000m^3;Beneficiary: The Croatian Compulsory Oil Stocks Agency (HANDA) Total cost: 15 million Euros[10]

Croatia will be able to access most of this amount through Cohesion and structural funds and in the first two years it will be able to draw a total of EUR 2.205 billion.[11]

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[8] under UNSCR 1244/99

[9] http://zelena-akcija.hr/hr/programi/energetika_i_klimatske_promjene/dan_planeta_zemlje_2011_buducnost_je_u_obnovljivim_izvorima_i_energetskoj_ucinkovitosti

[10] http://www.vlada.hr/hr/naslovnica/sjednice_i_odluke_vlade_rh/2010/80_sjednica_vlade_republike_hrvatske (1.1. dn.reda)

[11] http://eu.mfa.hr/InfoPopup.aspx?mv=297&pr=t&id=8877

Croatian NGOs have very clearly expressed their demands toward Croatian and EU energy authorities:
- Urgent creation of prequalification program for 1000 unemployed persons into installers of solar heating systems (governments)
- Significant increase (to 20 000 per year from current less than 1000) of subventions for solar heating systems in households, public institutions and small business (Crotian government / regional governments)
- Start of national program of energy efficiency (EE) especially in buildings sector which could serve as anti-crisis measure to construction sector (regional governments, European Commission)
- Thorough reform of incentives for use of renewable sources of energy, primarily through simplification of procedure for small producers, while for larger (in wind generators and cogeneration power plants on biomass) especially support projects in public ownership (regional governments)
- Redistribution in favour of energy efficiency and renewable energy sources together with better financial management in Fund for Environmental Protection and Energy Efficiency (Croatian government)
- Significant increase in administrative and expertise capacity of local administration for planning, financing from EU funds and implementation of projects related to renewable sources of energy and energy efficiency (regional governments, European Commission)
- Stop of further privatisation in energy sector, especially of existing hydroelectric plants which should in their operation respect the principle of environmental flow and be used as support for variable production from renewable sources of energy (regional government)
- Construction of domestic factory (cca 50 MW production per year) of photovoltaics and panels in public ownership that would for costs of production sell small systems for households and public institutions on domestic market (Croatian government)
- Stop of so called "Croatian Nuclear Program", reintroduction of moratorium on planning and construction of nuclear plants in Croatia and active lobby of Croatian government against construction of new reactors in neighbouring countries (Croatian government)
- End of investments for new large hydroelectric plants since their social and environmental costs on remaining potential locations are too high (regional governments, European Commission, EIB, EBRD)
- Stop in construction of new thermo power plants on coal and we believe that coal should not be a part of our energy future (regional governments, European Commission, EIB, EBRD)
- Creation of new "Crisis Energy Strategy of Croatia" based on following presumptions:
a) consistent adoption of EU goals on 20 % from renewables (without large hydro) and 20 % increase in energy efficiency until 2020
b) realistic assessments of future energy consumption and prices of classic energy sources
c) serious shortages of oil on world market and Russian gas starting from mid of this decade with less and less options to obtain their supply.

There are some positive NGO examples of activities in fields of EE and RES: *Educational centre for sustainable energy "Solar Academy" on Island Šolta, Croatia***.** Environmental NGO Zelena akcija (Friends of the Earth Croatia) is developing an educational centre "Solar Academy" in the field of sustainable energy and environment protection, focusing on methodology of public advocacy and technology for use of renewable energy sources. Educational activities are mostly weekly workshops and seminars. The goal is to use the Centre for professional gatherings for both international and national institutions that work in the field of environment protection and promotion of the sustainable development concept. Solar Academy is situated in the former military barracks on island

Šolta near Split. Facility was donated to Zelena akcija by the Croatian government for the period of 10 years. Zelena akcija, in cooperation with many international institutions, has renovated the facility to an educational centre "Solar Academy ", where the Environmental and other NGO activists from Croatia and the region of SEE are trained on environmental protection and especially on how to use renewable energy sources. So far we have successfully organized 9 international and national volunteer camps with 200 volunteers (cca 20 per camp) and 10 seminars, workshops or internal gatherings. The biggest event was held from 15th -22nd August 2009 when Young Friends of the Earth (YFOEE) and Zelena akcija organized one week long preparatory conference and training for more than 70 participants coming from all over the Europe. This meeting was preparation and educational/media tool for mobilisation of youth to actively participate in the public debate on the future climate change negotiations in FCCC COP in Copenhagen 2009.

Montenegro:

Energy competitiveness of Montenegro can be achieved only by strong boost of EE measures and strong utilization of domestic energy potentials, especially solar hydro and wind, but not on the expense of environment like in proposed project of hydro power plants on Moraca River, that is object of strong opposition of Montenegrin CSO and public. Therefore tenders for this project should be consulted and scrutinized for viability, and feasibility of that project.

Montenegro NGOs have clearly expressed some of demands toward National government: Government:

- Increasing degree of Implementation Energy legislation
- Establishing of EE Fund and using this resources for funding energy efficiency projects
- Establishing subventions for companies and citizens in Energy field
- Using huge solar energy potential
- Increasing level of transparency in the proces of using Montenegrin energy potential (especially hydro potentential).

Turkey

Public support for gas utilization must be stopped. For all end use needs, best available technologies must be manufactured and used locally in Turkey to avoid being the waste storage or shower of other OECD countries.

Bosnia and Herzegovina

- lack of consultations with public and local community in planning energy projects (especially applicable to small hydro power plants)
- plans for new thermal power plants (lignite and coal) would tremendously increase GHG emissions, and could become a obstacle for BiH accession to EU
- Developments strategy of energy sector in BiH should be subject of SEA (financed through IPA).

ANNEX I: ENERGY IN THE EU[12]

The aims of the **EU Energy policy** are supported by market-based tools (mainly taxes, subsidies and the CO2 emissions trading scheme), by developing energy technologies (especially technologies for energy efficiency and renewable or low-carbon energy) and by Community financial instruments.

The European Union's energy policy has three key elements: competitiveness, supply security and sustainability, all of which are interrelated. The EU is putting in place an ambitious energy policy - covering the full range of energy sources. Since 1997, the European Union has had a successful renewable energy policy which has enabled significant progress to be made towards the EU's objectives of reducing greenhouse gas emissions, ensuring security of supply and improving EU competitiveness. In December 2008 the EU adopted a series of measures with the objective of reducing the EU's contribution to global warming and guaranteeing energy supply.EU adopted the 2009 Renewable Energy Directive, which included a 20% renewable energy target by 2020 for the EU. The "20-20-20" targets are: - a reduction in EU greenhouse gas emissions of at least 20% below 1990 levels, - 20% of EU energy consumption to come from renewable resources, and - a 20% reduction in primary energy use compared with projected levels, to be achieved by improving energy efficiency. The EU plans to set up a network of carbon capture and storage (CCS) demonstration plants by 2015 to test its viability, with the aim of commercial update of CCS by around 2020.

Importantly, the European Commission's 'Trends to 2030' expectations are with renewables meeting between 32.6% and 36% of electricity consumption.

All energy production and consumption has environmental impacts[13]. The EU has made a commitment to integrate environmental concerns into all relevant policy areas, including energy.

The EC is currently preparing an **Energy Roadmap to 2050** to be adopted towards the end of 2011. This Energy Roadmap will follow the **Low Carbon Economy Roadmap 2050**[14] adopted by the Commission on 8 March 2011 and will specifically focus on decarbonisation in the energy sector. The agreed framework for post-2020 consists of two elements: the Heads of States' commitment to reduce greenhouse gas emissions by 80-95% by 2050, and the directive on the EU Emissions Trading System (ETS), which will continue to reduce the emissions cap for the ETS sectors by 1.74% each year beyond 2020. Given the difficulty in the 2050 timeframe to eliminate emissions in sectors such as transport and agriculture, achieving the Heads of States' commitment is only certain if the power sector emits zero carbon well before 2050.

Public opinion in the strategic energy planning is presented bellow.

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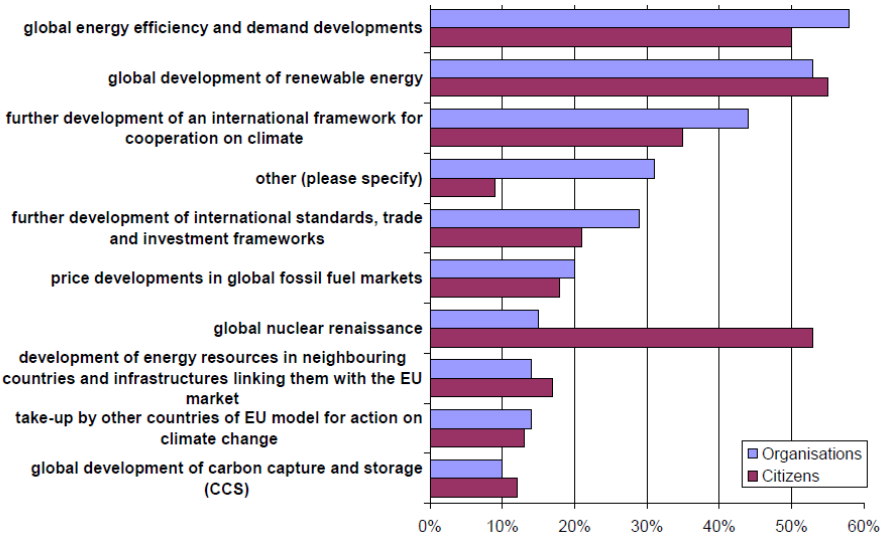
[12] Prepared by TE as the background information for NGOs

[13] http://ec.europa.eu/environment/integration/energy/index_en.htm

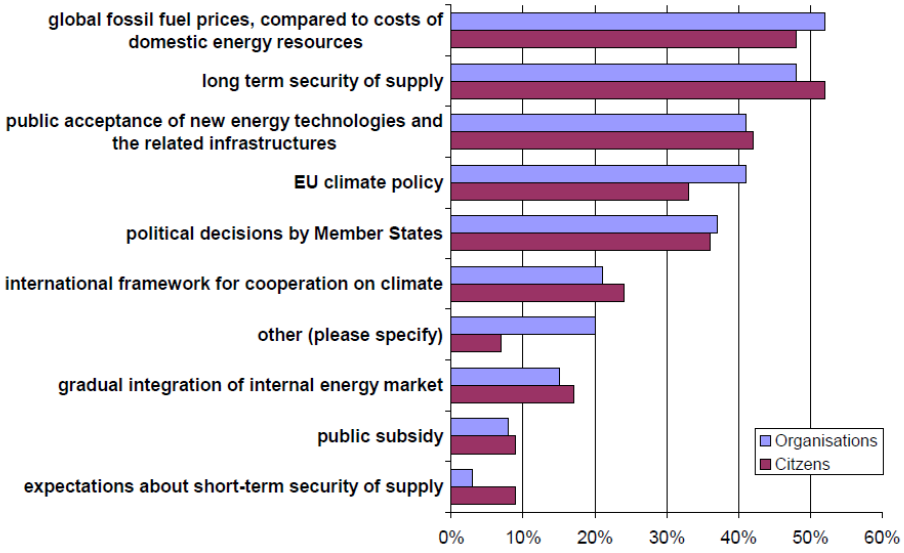
[14] Commission of the European Communities, (2011), A Roadmap for moving to a competitive low carbon economy 2050 (COM(2011)112), Brussels, 8/3/2011. http://ec.europa.eu/clima/documentation/roadmap/docs/com_2011_112_en.pdf

*Looking forward, EU energy policy may be increasingly influenced by developments in global energy supply and demand, international cooperation on climate and initiatives taken **outside the EU**. Which developments should be considered in the Energy Roadmap 2050? On which do you think a stronger EU line is necessary? (Pick three most important ones)*



Clarity on the future legislative framework is needed to avoid a lock-in into high carbon investments and the stranded cost in the associated assets.

*What are the most likely key drivers for the **future energy mix** in the EU? (Pick 3)*

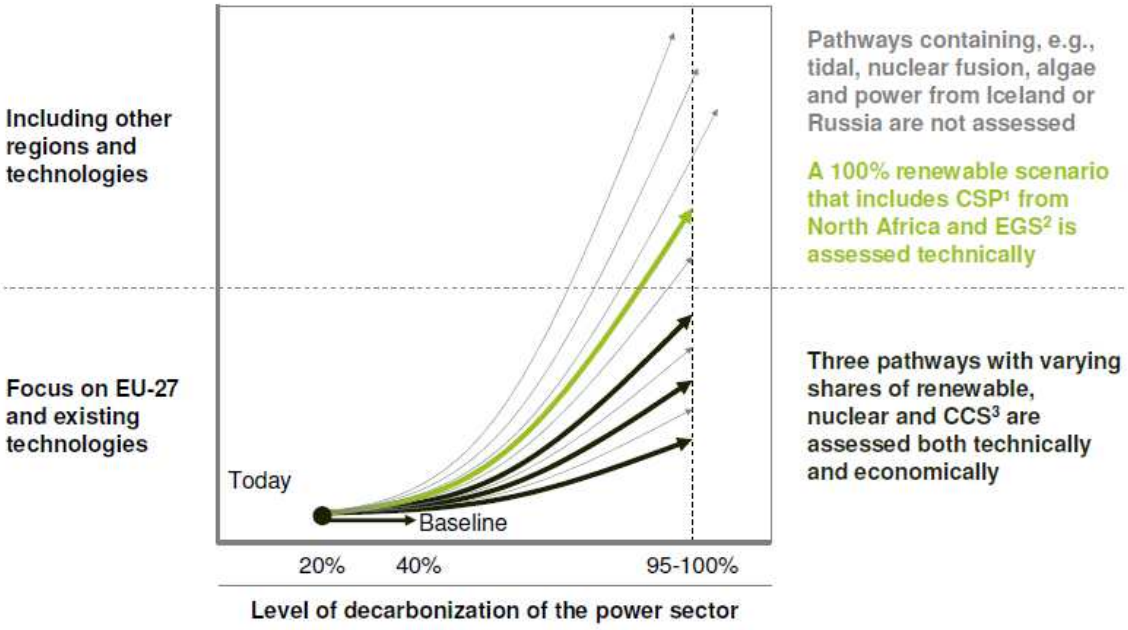


EU energy policy and the challenges ahead

The EU approach must be placed in a long-term perspective, beyond 2020. Many of the investments which are needed in the energy system are long-lived, so as much clarity as possible about policy after

2020 is needed now. More generally, clear thinking about the future can encourage the take-up of the widespread opportunities which the transition to a low-carbon energy system can offer.

Scenario analyses so far suggest that the transition to a low-carbon energy system can be feasible in technical and economic terms. The latest update of the "Energy Trends for 2030 – update 2009"[15] foresees slight growth of primary energy consumption between today and 2030.



1 Concentrated Solar Power (thermal, not photo voltaic)
2 Enhanced Geothermal Systems
3 Carbon Capture and Storage

The EU's dependency on imported fossil fuels will continue to be high for oil and coal and will increase for gas. As regards gas, the dependency on imports is already high and will be growing further, to reach about 73-79% of consumption by 2020 and 81-89% by 2030, mainly due to the depletion of indigenous resources. The adopted regulation on security of supply requires investing in infrastructures to increase the resilience and robustness of the gas system in the event of a supply disruption.

The aim of **the Southern Corridor** is to directly link the EU gas market to the largest deposit of gas in the world (the Caspian/Middle East basin) estimated at 90.6 trillion cubic meters. The key potential individual supplier states are Azerbaijan, Turkmenistan and Iraq; yet, if political conditions permit, supplies from other countries in the region could represent a further significant supply source for the EU. The key transit state is Turkey, with other transit routes being through the Black Sea and the Eastern Mediterranean. The strategic objective of the corridor is to achieve a supply route to the EU of roughly 10-20% of EU gas demand by 2020. With the financial support from the Commission[16] and great effort of pipeline companies, concrete transportation projects, namely Nabucco, ITGI, TAP and White Stream, are already in development stage and other possibly options are being studied.

[15] based on the PRIMES modelling framework
[16] EEPR and/or TEN-E programmes

Moreover, **the Nabucco** Intergovernmental Agreement, signed in July 2009, has provided Nabucco with legal certainty and terms for transporting gas through Turkey and created a precedent for further extension of transportation regimes. There is one main supplier in the CEE region - Gazprom deliveries are the overwhelming bulk of gas imports in the region (Poland: 70%, Slovakia: 100%, Hungary: 80%, **certain Western Balkan countries: 100%**).Due inter alia to monopolistic, isolated and small markets, long term supply contracts and regulatory failures, the region is not attractive for investors or producers.

Oil demand is expected to see two different developments in parallel: decline in the EU-15 countries and constant growth in new Member States, where demand is expected to grow by 7.8% between 2010 and 2020.

The main challenges for electricity infrastructure is growing demand and increasing shares of generation from renewable sources, in addition to additional needs for market integration and security of supply. EU-27 gross electricity generation is projected to grow by at least 20% from about 3,362 TWh in 2007, even without taking into account the possible effects of strong electro-mobility development. The share of renewables in gross electricity generation is expected to be around 33% in 2020[17], out of which variable sources (wind and solar) could represent around 16%.

More detailed information for the horizon up to 2020 is provided by the national renewable energy action plans (NREAP) that Member States have to notify to the Commission according to article 4 of directive 2009/28/EC. Most of the growth in wind capacities and generation will be concentrated in Germany, the United Kingdom, Spain, France, Italy and the Netherlands, while solar capacities and generation growth will be even more concentrated in Germany and Spain and to a lesser extent Italy and France. Alongside renewables, fossil fuels will continue to play a role in the electricity sector. Ensuring compatibility with climate change mitigation requirements of fossil fuel use in the electricity and industrial sectors may therefore require the application of CO2 capture and storage (CCS) on a large and trans-European scale.

Energy 2020 is a plan to cut, among others, **energy consumption**. The EU promotes more energy efficiency in the transport sector and in buildings - the two areas where consumption can be cut the most. Homeowners, landlords and tenants would get incentives for renovations and other energy-saving measures. Local and national governments would consider energy efficiency when buying products and services. Better energy labelling would push manufacturers to develop more efficient products. Consumers would be empowered to make price comparisons and to easily switch suppliers, who would have to provide them with clear details about their bills.

Key recent developments

On 8 March 2011, the European Commission published the **'Roadmap for moving to a competitive low carbon economy in 2050'**[18]. The roadmap sets out milestones to achieve an 80 per cent

[17] according to the Reference scenario

[18] Commission of the European Communities, (2011), A Roadmap for moving to a competitive low carbon economy 2050 (COM(2011)112), Brussels, 8/3/2011. http://ec.europa.eu/clima/documentation/roadmap/docs/com_2011_112_en.pdf

reduction in domestic EU GHG emissions by 2050 and identifies the percentage reductions that would have to be achieved by 2030 and 2050 over 1990 levels by key sectors. In relation to transport, the roadmap notes that savings from this sector could be 54-67 per cent (including CO_2 from aviation, but excluding maritime emissions).The roadmap also notes that until 2025, the main driver for reversing the trend of increasing GHG from transport is likely to remain improved fuel efficiency. The Commission goes on to say that in combination with additional measures such as pricing schemes, infrastructure charging, intelligent city planning and improving public transport, emissions from road, rail and inland waterways could be brought to below 1990 levels in 2030. The Commission invites the Member States, candidate and potential candidate countries to take the roadmap into account in further development of EU, national and regional policies for achieving a low carbon economy by 2050.

In addition, on 28 March 2011, the Commission presented the '**Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system'**[19]. The roadmap outlines a number of initiatives as part of an overall strategy to 'increase mobility, remove major barriers in key areas and fuel growth and employment' while simultaneously reducing GHG emissions by 60 per cent by 2050.

[19] Commission of the European Communities, White Paper - Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system, http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0144:FIN:EN:PDF, (COM(2011)144)