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Solidarity: Towards 2030 ambitions in energy policy

Edited by Charlotte Billingham, FEPS

Energy policy is at the forefront of political debates across Europe. It is a very contentious topic in several ways. However it is more widely recognised that in order to solve the energy 'trilemma' and ultimately move to a low-carbon society, there needs to be more cooperation at European level and also more political will to take ambitions forward. Ahead of the upcoming Commisssion proposals for the 2030 framework on energy and climate change this collection of articles addresses some of the fundamental issues at stake.

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Introduction – Towards a progressive European Energy System

By Ernst Stetter, Secretary General

Foundation for European Progressive Studies (FEPS)

In light of the European Commission proposals due out next month for the 2030 framework on climate and energy, FEPS supports the initiative that proposals are being brought in early to follow the post-2020 framework. The recent debate on capacity mechanisms shows that within Europe, lack of coordination between national energy policies risks being counter-productive. Diverging national schemes will be detrimental to the long-term objectives of a *common* European energy strategy.

A true common energy policy is still slowly emerging, despite clear ambitions. Although the European Union was founded on pooling energy resources together, in contrast to the Common Agricultural Policy, it wasn't until 2009 that energy gained formal status as an EU policy area with it's inclusion in the Lisbon treaty. It is high time action and leadership be taken to transform our energy sector.

The latest European Parliament working document on this issue clearly highlights why this is necessary **"Energy is a basic requirement for survival and is central to our economy"**.[1] The fact that fuel poverty exists in Europe is a real shame.

The current 'trilemma' – of how to attain carbon reduction, whilst maintaining security of supply and affordable energy for consumers is the most pressing issue we face today.

We can see that right across Europe, energy policy is at the forefront of pressing political debates. In Bulgaria, the rising prices toppled the government this year and provoked street riots. In Germany the 'energiewende' or 'energy transition' of the move away from nuclear and towards more renewables is hitting consumers the hardest. In the UK, the energy price debate looks set to turn the government at the next general elections and in Spain the economic crisis has meant that previously set legislation in investment in renewable energy has been abandoned.

In Eastern Europe there is a lack of interconnection facilities within and between the EU member states which means that Russian energy suppliers still have a huge influence and political power over the region.

It is clear that the market cannot manage on it's own and more concrete policies and long-term planning is needed. As economist Mariana Mazzucato discusses in her recent book and article for

[1] A. Delvaux and K. Szymański in European Parliament working document 6/11/2013 on a 2030 framework for climate and energy policies (2013/2135 (INI)) Committee on Environment, Public Health and Food Safety. Committee on Industry, Research and Energy

Queries magazine, "the state is more than a 'fixer' in times of market failures". [2]

Contrary to austerity measures it is now that Europe needs investment in new technologies and infrastructure to ensure further growth, jobs, economic stability and not forgetting a cleaner sustainable future. Energy policy can provide the key momentum in demonstrating if the EU is equipped to carry out the transition for the benefit of its citizens.

Consequently FEPS decided this year to concentrate its work on energy policy within the framework of 'solidarity, the reason to fight climate change'. Towards an integrated, progressive energy system in Europe is the objective of this project and the transition to a low-carbon society.

Several elements have constituted the work to this project, round-table debates in different corners of the EU and desk research on interconnection and infrastructure facilities, each with our various partners.

Complementary to that we established an energy focus group with various stakeholders who meet in Brussels. This publication is a collection of articles from several members of the group. Each have written in their own capacity. The idea for this is to highlight the need for a coordinated, European energy policy. The collection shows that on many levels there is much agreement that there is urgent need for more cooperation and more sharing of energy resources and planning is needed. To stimulate this, political will is needed. This is the main reason why FEPS believes it is important to illustrate this, and we hope it will be taken into account when considering the next phase of the climate and energy framework in Europe.

[2] M. Mazzucato and Kim Rahir, [in] Making State Intervention Glamourous, FEPS Queries Magazine issue 2, Brussels, 2013

On energy, thinking European saves money

By Dries Acke, Policy Manager

European Climate Foundation (ECF)

The many 2050 energy roadmaps, published over recent years, all share one conclusion: **the transition towards a decarbonised economy in Europe requires a fundamental transformation of the power sector.**

That is quite an undertaking, especially considering the European Commission's calculations that the transformation requires up to €1 trillion of investments in the power sector, only within this decade.

This puts a burden on policy makers across Europe to establish a policy framework that can drive this transformation in a secure and affordable manner. In a new report, called *From Roadmaps To Reality*, the European Climate Foundation analyses this exact question: is the current European energy framework adequate to drive the power sector transition in the next decades? And to the extent it is not, what needs to be improved?

It is widely known that the cost savings potential from an integrated European approach are significant. In a recently released report from the consultancy firm *Booz & Co*, prepared for the European Commission this Autumn, the potential system benefits from integrating energy markets go up to €40bn per year by 2030. Also, ECF's own analysis, called *Power Perspectives 2030*, calculated potential savings from optimal resource sharing up to €426bn in the 2020-2030 timeframe.

That means that the trend towards a fully functioning and integrated energy market is right and should be maintained.

However, ECF's analysis finds that **market integration will not materialise with a *laissez-aller* approach. It requires concrete policy action,** in particular with regards to adequate infrastructure, activating the demand side, regionalising system operation, and steering investment from high to low carbon assets.

The risk is that Member States will have a national reflex, letting a common EU approach to energy drift apart. In recent months, we see several EU countries mull over the designing of capacity mechanisms to compensate for idle generation assets in an attempt to secure electricity supply. Such mechanisms risk creating a patchwork of national policy measures that undermine market integration and the related cost savings.

In addition, if transmission interconnections are strengthened and demand response options are fully taken into account, the need for capacity mechanisms to secure national supply security will disappear as snow for the sun.

The challenge is therefore of a political nature. Member States need to think beyond national borders in solving their electricity challenges. The cost savings potential from cooperation should be an attractive *carrot*. **On energy, thinking European saves money.**

But more is required than just a reflex to think European. Member States may rightfully question whether the EU competences and governance structures allow it to take up key responsibilities related to energy supply. In the end, the responsibility lies with national system operators to safeguard a country from brown-outs, let alone black-outs.

Therein lies the core of the message of ECF's new report: due to limitations and weaknesses in current EU governance structures it is far more difficult to take measures on the EU level than it is in an individual Member State. It is also not politically realistic to expect a step-change in competences from national to European level over night.

That leads to two recommendations in the short-term:

1. It is time to formalise the many regional, cross-border initiatives that are already spreading across the continent. Regional cooperation could function as a more realistic 'stepping stone' towards wider European market integration. It is particularly relevant to look at the Regional Groups, already established in the Energy Infrastructure Regulations, and ACER, the EU umbrella group of national regulators, to shape and formalise regional cooperation initiatives.
2. EU governments should dare to look beyond the current governance structures and consider a 4th Internal Energy Market Package to bring together power market reforms and decarbonisation policies.

The emerging debate on a new 2030 climate and energy framework provides an attractive context for this discussion to take place. EU governments should take a fresh look at EU energy policy and work towards a stronger EU energy framework that aligns market liberalisation and decarbonisation objectives, links targets to delivery mechanisms and establishes robust and truly independent governance structures.

The timeframe between now and 2015 provides a unique window of opportunity to establish a more integrated and strengthened common EU climate and energy strategy.

A European Supergrid is Inevitable

By Ana Aguado Cornago, CEO

Friends of the Supergrid (FOSG)

In 2009 the European Union (EU) committed their countries to an 80-90% reduction in Green House Gas emissions by 2050. Consensus to reach this target requires the EU to achieve a "nearly zero-carbon power supply". Providing zero-carbon power to homes and businesses across the EU will require an open market in electricity, underpinned by both upgraded and new trans-national transmission networks. This new transmission network will exploit and optimise the existing and future energy mixes in Europe while also allow the integration and balance of the full potential of renewable energies.

Building this network in time to meet the 2050 challenge requires action now.

Benefits to the EU of a European Supergrid :

Supergrid is the fundamental architecture of European electricity generation and supply, without it we have a collection of suboptimal national markets.

Given the geographic distribution of renewable resources, individual countries will struggle to deliver sustainable and secure energy supplies if they base policy on national considerations alone. The EU has encouraged the creation of a single energy market, while energy policy is retained at national level. This national focus is constraining thinking.

Rather than build capacity markets in each Member State, countries should be able to share their capacity and by so doing reduce the cost to the consumer of system balancing.

In this transition phase to sustainable (zero carbon) electricity supply, fossil fired gas and coal plants will become less used. With Supergrid this spare plant, which is now becoming semi redundant, can provide backup across the EU.

European trading in electricity is also minimal now. It is instead possible to envisage thousands of traders working the Supergrid, selling on price and therefore reducing the overall price to the consumer across the EU.

How to develop the European Supergrid in Phases:

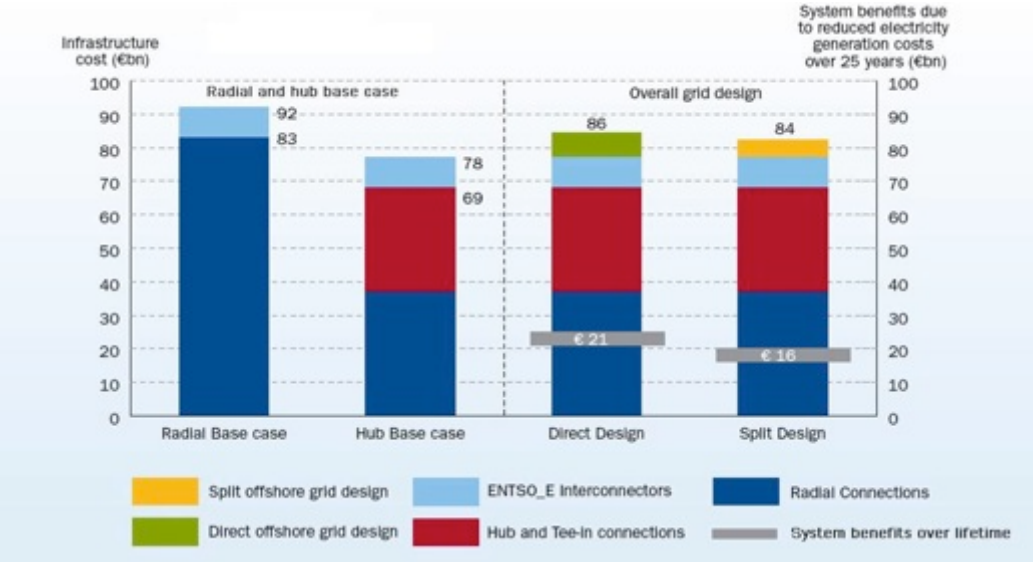
The EU recently adopted Regulation on Trans-European networks that entered into force on 15 May 2013[3] identifies the urgent need for new transmission infrastructure to uphold and further develop a secure and efficient supply of energy in Europe. The proposal has led to the publication of the list of Projects of Common EU Interest (PCIs) that intend to deliver the necessary investments in a timely manner.

However, existing project investments (within and out of the PCI list) are still not enough, particularly considering the urgency of meeting the demands from new renewables already by 2020, in addition to the challenge of catching up on the backlog of investments that did not materialise during the past decade.

If we take as example the North Sea, connecting offshore wind to the shore and on to load centres will become increasingly challenging as offshore capacity increases. Significant investment and operation costs can be saved on- and offshore if the connections are planned and coordinated with a longer term view, and on a regional/European scale, so that connections develop into a grid rather than purely park-to-shore connections.

The "OffshoreGrid project" study[4] financed by the EC has provided clear evidence of cost benefits to consumers in designing the offshore Supergrid by using Tee-in solutions or Hubs (among the offshore wind platforms from several Member States) in place of a more conventional grid design (radial or point-to point). Hub connections would save €14 billion and additional meshed connections costs of €5-8 billion would bring benefits of €16-21 billion (figure 1).

[3] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0658:FIN:EN:PDF
[4] Offshore Electricity Grid Infrastructure in Europe http://dropbox.3eprojects.net/?id=8a285a34-e1d8-431e-97c1-444a92f27a47



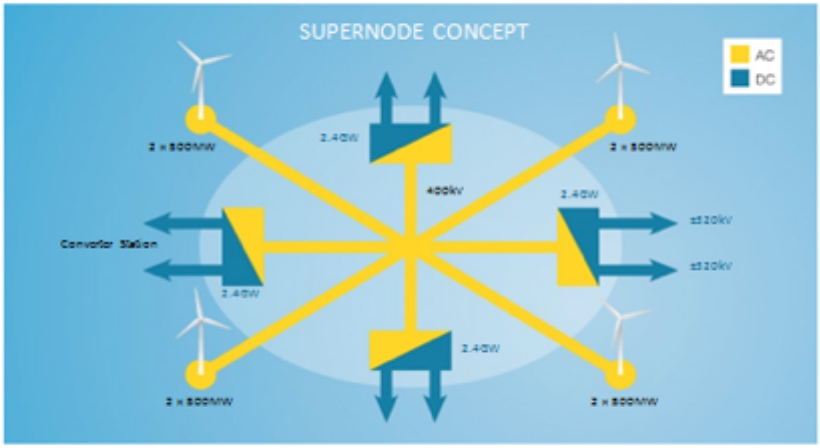
FOSG proposed three years ago a possible Phase 1 of the European Supergrid by 2020[5]. In Phase 1 emphasis is put in linking the UK, Norway, Germany and Belgium. By doing so the Supergrid will interconnect markets with sufficient demand and supply to enable the most effective use of the grid for trading electricity.

The Supergrid Technology:

The Supergrid will be built out in phases. The North Sea phase would therefore connect the current crop of offshore wind generators to existing grids. Supernodes will then be necessary to cluster offshore wind generation for bulk delivery.
High Voltage Direct Current (HVDC) transmission can be operated in parallel with an integrated High Voltage Alternate Current (HVAC) system creating a hybrid transmission system. Here is a new type of combination of HVAC and HVDC systems called the "Supernode".

[5] http://mainstream-downloads.opendebate.co.uk/downloads/111014_Evolution1stPhase_final.pdf

Supernode Concept



The Supergrid initial phases should at the same time provide a staging post for its future expansion covering the entire European Union.

Friends of the Supergrid (FOSG) has published an update of the *Road-Map to Supergrid* illustrating what technology is currently available, what is on the horizon and what common standards are needed[6].

A clear conclusion is that technology has never been, is not and will never be the bottleneck in the development of the new European transmission network.

[6] Road-map to the Supergrid technology: http://mainstream-downloads.opendebate.co.uk/downloads/WG2_Roadmap_to_the_Supergrid_Technologies_2013_Final_v2.pdf

Solidarity: Cohesive force or structural weakness of European energy policy?

By Sami ANDOURA[7], Senior Research Fellow

Notre Europe

In a European energy context long marked by national independence and sovereignty, the principle of energy solidarity has become progressively a tangible reality, raised at the level of fundamental principle in European treaties.

Gradual but real increase in energy solidarity in Europe

It took the number of threats and failures, including gas crises between Russia and Ukraine, for the EU and its Member States advancing on the path of energy solidarity. The EU secured progress on the issue of energy solidarity by launching common initiatives in key areas such as: Internal security of supply for gas; progressive integration of national energy networks; diversification of energy sources and resources, etc. **European institutions increasingly mention energy solidarity in their Strategies and Communications. Energy solidarity is also essentially based on key market mechanisms. I**t is the market and private industry, flanked by European rules, which often guarantee secure supply, preventing and managing potential crises, creating a *de facto* solidarity.

Missing elements of EU energy solidarity within the EU

While these progresses are beneficial, they mainly consist in individual initiatives, which cannot yet be regarded as an overall strategy. Energy solidarity has not been subject of any common European definition. Mostly identified with the issue of energy infrastructure, it is still often discussed incidentally to the general rules and developed at the technical level.

Significant gaps in the EU energy policy remain in terms of solidarity: Electricity supply security is the weakest element of the European energy system; Solidarity is not sufficiently integrated in bi-or multilateral energy instruments with external supplier and transit countries; the required economic and financial solidarity for the impetus for major infrastructures of European interest remains limited; Energy poverty is a growing European phenomenon, etc.

There are political, economic and social factors which hinder a truly shared European approach to this multifaceted issue. Foremost are differences across the community of nations that is Europe, reinforced since 2004. Differences in culture, history and energy policy among Member States,

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where technical, industrial and technological conditions differ, still lead to conflicting outlooks from governments on its meaning and the mechanisms for its implementation. These different approaches perceive energy solidarity as: a bond of charity, financial transfers from the "rich" to the "poor", accountability of some "free riders", reciprocity, collective insurance against risks, pooling of strengths and weaknesses in the international arena, social and interpersonal approach to energy, etc.

Core principles and vectors of European energy solidarity in the future

When the EU will be able to move on its own initiative, anticipating the future, and make decisions driven by the benefit of a collective approach, based on interdependence and solidarity of all Member States? It is essential that EU energy solidarity consistently involves these major components:

- Completion of the internal gas and electricity markets, which create a *de facto* solidarity through the liquidity of energy flows in Europe.
- Security of supply through physical infrastructures based on the need to integrate national energy networks as well as to improve complementarities of national energy mixes, thus creating *de facto* solidarity.
- Optimising the use of energy resources in the EU in the context of energy transition(s), through promotion of low-carbon energy sources and the essential energy infrastructures for their development.
- Strong political will and collective leadership of Member States based on extensive cooperation in critical areas such as security of internal supply, external dimension of EU energy policy, resource optimization and innovation, access of all to affordable energy and the fight against fuel poverty, energy transition and its financing, etc.
- Reflecting different levels of development of Member States and their specific difficulties in delivering on European energy targets by 2020.

A necessary subtle and complex balance between these aspects is again at the heart of negotiations between the EU and its Member States over the European energy system post 2020.

Conclusion – Towards a European Energy Community

EU energy policy cannot be limited to the issue of solidarity. European energy policy, like a European Energy Community, includes three major components: **competition that stimulates, cooperation that reinforces and solidarity that unites.** Its development must be based on these three pillars which are at the basis of the successful experience of establishing a single European market for goods services and so on.

Last but not least, the EU remains above all a political construction which should address its citizens' concerns. They are calling for a European energy project that meets their fears, aspirations and needs. Energy solidarity between people, countries, regions and operators in Europe is at the heart of this challenge.

To bind or not to bind? - Targets for European energy and climate change

By Charlotte Billingham, Executive Adviser

Foundation for European Progressive Studies (FEPS)

With objectives for reaching the 2020 targets in mind and the Commission already initiating the consultation on the 2030 framework for climate and energy policies,[1] many stakeholders are calling for further objectives to be included and be more binding in the next framework. The public consultation concludes that there is almost universal support for the development of a *common* European framework for climate and energy policies".[2] Further to the 20-20-20 targets for reducing greenhouse gases, raising the share of renewable resources and improving energy efficiency, additional targets are being proposed, such as the idea of an infrastructure target or a research and development target.

Out of the current targets, the first two are on track to being achieved whereas the latter is very unlikely to be reached. The latter being not legally binding. Therefore when further targets towards the 2030 energy and climate change package are being considered, one would expect energy efficiency, dubbed 'the hidden fuel'[3] to be considered as a legally binding target. Under the current situation, this does not seem likely however.

Moreover the recently published UN gap emissions report warns that if we don't significantly cut emissions by 2020, "the world will have to rely on more difficult, costlier and riskier means after 2020 of keeping the global average temperature increase below 2° C."[4] Consequently, a big push to reform the energy sector is imminent, yet trust in European institutions is at an all-time low and 'Brussels' is often blamed for having too much red tape already.

With this in mind, what should be taken into account for the next phase, given that if we don't act now, it will be costlier in the long-run? An emission target alone would clearly not be enough, also if the objectives are not legally binding, they are not likely to be met. **How then is it best to introduce objectives from a top-down approach if this structure is not widely accepted in the current political climate?** Should the EU dilute its ambitions and ask for less demanding targets? Would this make them more attainable? How then will the objectives set out ever be reached? What is the added-value of the EU though, if the targets are not binding?

[1] http://ec.europa.eu/energy/green_paper_2030_en.htm
[2] http://ec.europa.eu/energy/consultations/doc/20130702_green_paper_2030_consulation_results.pdf
[3] International Energy agency October 2013 Energy efficiency market report 2013 http://www.iea.org/w/bookshop/add.aspx?id=460%20
[4] UNEP Emissions Gap report 2013 http://www.unep.org/publications/ebooks/emissionsgapreport2013/

Let's look at why targets are important:
Targets in EU policies and legislation play an important role in:
1. *Creating high level accountability;*
2. *Allowing benchmarking and monitoring of results;*
3. *Sending long-term signals to investors; and*
4. *Providing guidance for further policymaking.*[5]

The added-value of the EU is precisely for these reasons

The EU has always been a driver in climate policy, so targets in climate and energy policy should be ambitious because it pressures others to act. Even if they are not reached it imposes discipline of some form and as a last resort, can help to get close. Although they should be ambitious, there still needs to be a certain amount of inspiration and higher aim than 'business as usual'.

They provide a certainty of policy which is useful for long-term investment and planning and essentially should remain even in times of crisis. They are important also for consumers and political representatives can use them as a demonstrative tool of achievement.

Targets are there really because of public pressure, when there is a lack of political will to truly act, if they are not reached, public pressure counts for a lot. Yet it must be clearly noted *"by themselves, targets do not constitute an efficient policy. EU policymakers thus have to think hard about their carbon policies and within the general framework of the 'green economy'.*[6]

Moreover, how much does this drive come down to effective leadership? At the moment, the EU provides a form of leadership but transparent and coherent policy is vital. The need for a fair and effective energy policy needs to be addressed. The business case for renewable energy needs to be tackled otherwise conventional energy sources remain a more attractive business model and the ETS (Emissions Trading Scheme) needs urgent reform.

National perspectives look at what they can gain from a European deal, in this case, **acting alone simply is not as effective and is more costly, therefore binding agreements give added-value** to the EU and provides accountability for attaining significant targets.

[5] http://eedguidebook.energycoalition.eu/twentytwenty.html
[6] E. LAURENT, Economic and social-ecological policies towards a low-carbon economy: the case of the EU [in] ETUI Greening industries and creating jobs, B. Galgóczi, (ed.) ETUI, 2012 P.75

A low carbon Internal Energy Market can be efficient and market-oriented

By françoise Colas, Senior Advisor in Analysis and Strategic Publications

EDF

EDF considers that there is a need to balance three broad policy objectives regarding the Internal Energy Market :

- **Economic development**, through encouraging growth, competitiveness, affordability, industrial innovation and development.
- **Environmental protection**, primarily through GHG (greenhouse gas) emissions reductions but also through reductions of other pollutants.
- **Energy security and reliability**, through energy independence, appropriate infrastructure and public safety considerations.

A - Today, the Internal Energy Market is facing tough challenges:

Currently there is no unique solution that achieves all three of these policy goals.The very rapid RES (Renewable Energy Sources) rollout resulted in significant over-capacity which has in term caused very low or negative wholesale prices. The low prices have created additional huge losses for conventional generators because of mothballing, early write offs, and preventing benefits from the economies of scale and learning. EDF believes that costly support policies need to be phased out as soon as practicable beyond 2020 and support needs to refocus towards research and development and targeted measures such as demonstration projects.

The ETS (Emissisons Trading Sheme) is being impacted by two other policies : support to renewables and energy efficiency.

The interference mechanism is well known: both policies are subsidized and both targets are now binding. As a consequence, industries submitted to the ETS have to invest in renewable and energy efficiency projects which abate emissions at a cost which is generally higher than the carbon price in the ETS. These investments displace less costly ones that would have been incentivised by the carbon market. At the end of the year, the total amount of abatements is the same as it would have been without subsidies to renewables or energy efficiency. The difference however is that part of them are mandated by binding targets and that less than would otherwise have been the case are induced by the market. As a consequence the investment that sets the carbon price is less costly and the carbon market is depressed. Investment in low carbon technologies paradoxically becomes more difficult to finance and de-carbonisation is achieved at a higher cost.

Moreover, current failures have lead to significant regulatory/political national interventions in many parts of the Internal Energy Market, undermining it and making it increasingly irrelevant. The development of RES is not an end in itself but a means to decarbonise the economy.

B – In this context, EDF Group propositions are pragmatic :

EDF believes that it is a key priority to send a sufficient and predictable carbon price signal to succeed in the transition towards a competitive low carbon economy.

An appropriate carbon price can encourage investment in low carbon technologies, lead Europe towards less energy dependency and preserve its competitiveness.

To achieve it, EDF recommends prompt adoption of the following measures at EU level:

1. Set a ambitious and long term target towards 2050 and an interim binding 2030 milestone on the basis of carbon emissions or carbon intensity.
2. Safeguard the European ETS as the primary decarbonisation instrument through fundamental and comprehensive reforms so as to create a robust and predictable framework for low carbon investment.
3. Having done this, there is no need to set binding targets for particular technologies or means to decarbonise (like RES or Energy Efficiency).
4. Focus on phasing out inefficient and costly support policies as soon as practicable beyond 2020, while refocusing this support towards research and development and targeted measures such as demonstration projects.
5. Tackle competitiveness and fuel poverty issues. In particular, use part of European ETS auction revenues to address potential carbon leakage and affordability problems that may result from possible higher costs of decarbonisation. For residential customers, the goal of EDF's customer relations policy is to strengthen customer confidence over the long term and to meet their expectations as fully as possible, especially when it comes to controlling their energy consumption. In terms of customer satisfaction, more than 88% say they were satisfied after dealing with EDF in 2012.

C - Economically efficient interconnections are a priority

EDF believes that the development of interconnections should be promoted when it is economically efficient. Besides, EDF shares the European Commission's vision that deciding on too many interconnections does take into account the length of administrative procedures, societal and environmental oppositions. The Projects of Common Interest (PCIs) is a pragmatic and efficient approach. However it is essential to ensure that the operation of these projects do not introduce market distortions that would suppress the development of more cost-effective solutions (generation, demand-side management, or storage), or would constitute an indirect subsidy to some type of generation (e.g; RES).

D - Fuel poverty : EDF chooses to go above its legal obligation in this time of economical crisis

By the end of 2012, 1,083,000 households benefited from a basic necessity electricity tariff. In 2012, EDF contributed €22.9 million to the Housing Solidarity Fund ("FSL"), which helps to write off unpaid bills for customers in financial difficulty. In 2012, it helped more than 190,000 households.

EDF also promotes its "energy guidance" offer, bringing together services and advice about rates, usage, energy management and payment terms. In 2012, over 324,000 people took advantage of it.

How Energy Efficiency could bring the EU economy up

By Bertrand Deprez, Chairman

Advocacy Group, European Alliance to Save Energy[7]

1. Making the right choice for 2030

- One of the most contested issues under discussion is what kind of target regime is appropriate to 2030 – how many targets should Europe have and at what level should they be applied?
- In the view of many stakeholders, issues related to competitiveness and growth shall be a central component of the future energy and climate package. This is exactly the reason why energy efficiency shall be at the core of political decisions around the decarbonisation and energy framework of the European Union.
- **Energy efficiency is Europe's key remedy to address raising energy prices, energy dependence and climate change; whilst it is surely one of its greatest opportunities to create the innovation and jobs of tomorrow.** 30% efficiency target by 2030 corresponds to $335 billion of energy cost savings: equivalent to 2.7% of 2011 EU GDP. It also means creating 1,1 million additional jobs inside the EU – as employment shifts from energy production outside the EU to efficiency-related jobs across EU Member States. Energy efficiency could reduce a business's total energy costs and consequently improves the competitiveness of EU industry.

2. Why we need to adjust Europe's energy demand

- The primary driver of increasing energy costs in Europe is rising global energy demand. This in turn is driven by the increasing global population (which has increased by 32% since 1990 to almost 7bn people in 2010[8]). In 2011 ~900 ktoe of the EU's energy was imported, equating to 6.2% of EU GDP[9].
- The IEA's industrial price index for real electricity prices has increased by 37% in European OECD members within only 7 years (between 2005 and 2012), while the corresponding change in the US was minus 4%. Heat and electricity bills now account for a growing share of the average expenditure of households, varying between 7% and 17% including private transport costs. Poorer Europeans are faced with energy expenditures of 22 % of total expenditure in some Member States[10]. In the UK, research has shown that one in five UK households live in fuel poverty.

[7] *The European Alliance to Save Energy (EU-ASE) was established at the United Nations Climate Change Conference (COP16) in December 2010. Our members are some of Europe's leading multinational companies, a prominent cross-party group of European politicians and energy efficiency campaigners from across Europe. We have come together as a united force to tell the story of energy efficiency. Our message is simple: create an energy efficient Europe now!*

[8] UN Department of Economic and Social Affairs World Population prospects: The 2012 revisions See http://esa.un.org/unpd/wpp/Excel-Data/population.htm

[9] BoAML – Less is more, Global energy efficiency

[10] EC Energy challenges and policy (2013) Commission contribution to the European Council of 22 May 2013

- Cost of energy in Europe is becoming a real source of concern. Yearly average oil prices have risen by over 200% since 2003, while EU oil import dependency has risen to 85%. In 2011, the European Union spent around 573 billion Euros on energy imports at EU level.

3. Energy efficiency is a strong driver in reducing energy cost

- Since 1974 the policy interventions made in 11 major economies (including 4 of the 5 biggest EU countries by GDP) have had a major cumulative impact on annual energy use and have resulted in avoided energy consumption larger than the consumption of oil, electricity or natural gas in these countries. Today, Europe uses one-third less energy for every €1000 of GDP added to the EU economy. IEA (International Energy Agency) statistics show the EU is one of, if not the, most energy efficient major economy in the world. For some parts of the industry, this could practically halve the impact of energy prices increases.
- The research institute Ecofys has estimated for every €1 of direct energy cost savings, an additional €1 could be saved due to lower energy prices. Therefore, net additional annual cost savings of the order of €100 billion can be expected on top of the €107 billion that will result from implementing cost-effective energy savings measures
- Energy efficiency combined with demand side management is also a critical way to make the supply chain more efficient, triggering lower energy costs and eventually better prices for consumers. Greater demand flexibility in particular enables the internal energy market to increase the amount of zero-carbon wind and solar power it can integrate. It is estimated that broadly only 10% of the demand response potential is used today.

4. We need a target for energy efficiency in 2030

- **Energy savings is the most effective way to mitigate rising cost of energy, in particular in a decarbonisation context. The export potential for European businesses could be huge, but only if we work to create a business environment that enables our industry to scale up in time.**
- Making an ambitious decision about energy efficiency would provide one of the most cost-effective ways to achieve the decarbonisation objectives while it could provide a predictable and stable framework for the whole business chain.
- The time has now come to commit to setting an ambitious and mandatory target for energy savings for 2030 that should be completed with pro-growth implementing measures.

Useless Cross-border Pipelines?

By Dr. Simon DOMOKOS, Expert on EU law and energetics

Office of the Hungarian Parliament

The decision was made in the second half of the ’90s in the European Union to complete the internal market and to liberalise the markets of infrastructure-based supply of energy such as electricity and natural gas. Its purpose was clear: to make an ordinary product from energy like any other product available on the market. This necessitated some regulation enabling free trade and competition to develop regardless of the product’s specificity of being supplied through fixed networks. The basic instrument of this regulation is the **transparent and free access to necessary infrastructure, to be provided on non-discriminatory terms and conditions.**

However, in order to realise the objectives and prescriptions laid down in relevant documents, the necessary infrastructure must be available. As far as its function is concerned, the infrastructure in question is similar to other transmission infrastructure (like road transport or railway networks): it must enable cross-border transport of goods, so that any trader could have access to any consumer, or any consumer could order the services of any trader. Briefly, this means that the system should be interoperable.

In order to enhance the establishment of such a system the European Commission decided in 2008 to launch the European Energy Programme for Recovery. This programme was particularly important for the former socialist countries that joined the EU in 2004 or 2007, as it could help them to reduce their one-sided dependence on natural gas supply from Russia. These countries (with Hungary among them) had specific gas transmission networks, originally construed in such a way that they were directly connected to the former Soviet Union, but they had no gas network connections among each other.

The programme enabled the establishment of interconnections in the north-south direction of existing east-west transmission networks and the creation of bidirectional physical capacity enabling gas to flow in both directions so the strengthening of security of supply and the promotion of EU objectives. It is partly due to the programme that the cross-border transmission pipelines interconnecting Hungary with Romania and Croatia have been built and that the one between Hungary and Slovakia is under construction.

However, the new interconnectors cannot fulfil their mission as practically there is no gas flow transmitted by them. This is because the countries in question hinder the export of natural gas produced on their respective territories. This practice is violating EU law requirements, but the Commission does not really take action against it. Countries hindering intra-Community trade of domestically produced natural gas usually try to justify it with reference to the vulnerable social status of household consumers and the low production costs of gas. It is out of the question that the high natural gas price is a problem for countries where the average income is low but the proportion of natural gas is relatively high in the energy mix. On the other hand, the benefits stemming from the low production cost of domestic natural gas can be transformed into consumer surplus by other means not hindering market-based free trade.

The fundamental problem is that countries in the region are still thinking within national boundaries about energy policy. In addition to the fact that this creates obstacles to the attainment of the internal (competitive) market, it renders their dependency permanently on Russian gas sources. That is to say, in case of truly interconnected gas networks the physical origins of gas flows would become irrelevant, so real competition could develop among traders and different sources of natural gas.

It must be noted that market participants would be ready to adapt their strategies to true market conditions, but they are blocked by regulation. If this situation is upheld on the longer term, legislators will cause trouble to themselves and to their own consumers, as they will not be able to benefit from the interoperability of the networks. In case the interconnected and interoperable transmission network is available, then competition will enable the cheaper supply of consumers, and competition definitely fosters security of supply. In addition to that these interconnected networks would have further favourable effects as they could render easier access to gas storage infrastructure.

If the Croatian, the Hungarian and the Romanian State restricts cross-border trade and if Austria does not enable reverse flows on the HAG pipeline (towards Austria), then cross-border pipelines have been constructed senselessly, and things remain as before. It is doubtful whether anything could change without the firm enforcement action by the Commission for the observance of commonly adopted rules.

As long as the horizon is not beyond the borders and as long as countries of the region prefer bilateral (primarily Russian) relations to multilateral common solutions, one-sided dependence and vulnerability will remain unchanged. And we can call the EPR (energy programme for recovery) programme – or at least its part concerning natural gas infrastructures - Much Ado about Nothing.

What policy should progressives and social democrats offer for the EU's energy policy in Northern Europe and the Baltic States in particular?

By Ervins Labanovskis, Head of the Board

Freedom and Solidarity Foundation, Latvia

One of most problematic areas for effective cooperation within EU is Europe's energy policy, where countries often struggle to fulfil their national interests even if they contradict to common interests of the EU.

What would a successful common energy policy in the EU mean for the Baltic States and Northern Europe?

It would mean there are sufficient various alternative energy sources that come from the EU. Subsequently, Russian gas, oil, and electricity traders would be obliged to comply with global market conditions and cease to use energy supply as an instrument of influence in these countries. It is only when strong and competitive energy sources appear in the EU or more precisely within the Baltic States that Russian energy policy will change.

At the moment, Russia's energy policy is characterised by "divide and rule" principle. Russia is clearly trying to work individually with each country, often turning them against one another, thereby making it difficult to develop a common EU energy policy. By offering favourable prices to one country, another is being suddenly punished with a raise in gas prices. It is fairly common practice of the Russian energy giants to use proactive action to prevent the arise of new energy solutions in Eastern Europe. In order to achieve its objectives and to avoid arise of competition, manipulation with political processes and speculation with energy prices is carried out.

For decades, European democratic countries are forced to spend billions of euros to maintain non-democratic regimes, only because these countries have abundant natural resources. I am not calling for isolationism and protectionism, but the EU has to create a capacity strong enough not to be vitally dependent on these regimes. At the moment there is a huge temptation for member states to agree directly with Russia on a construction of the gas pipeline. This shows, bypassing or ignoring the interests of other EU countries. Nevertheless, benefits from such a policy will be short-term, because sustainability relies only in a united European energy policy and in realisation of joint decisions and politics in this fundamental field.

What solutions and policies should progressive and socialdemocrats offer for the EU's energy policy in Northern Europe and the Baltic States?

Firstly, energy policy should be based on maximum use of local resources. Alternative energy produced from local resources, creates jobs and strengthens the overall capacity of energy in Europe and ensures the money stays in circulation within the EU economy.

Secondly, new energy projects could rely solely on the basis of renewable energy - wind, solar, hydro, biomass etc. Use of fossil fuels should be limited in the future as much as possible so as to create economically more effective alternatives that do not cause additional carbon emissions and are based in the EU.

Thirdly, local solutions have to be a part of the global European energy policy and system. **Strengthening local capacity is effective only if there will be effective electricity and other energy interconnections within the EU.** The more various energy sources there will be the more secure and cheap this system will be. There should be a possibility for small and large energy companies, as well as households to participate in a united energy network.

And finally, last but not least **a precondition for progressive politics would be an evaluation of energy policy's social impact**. A very important objective in any policy-making process is to achieve goals. In this case that heat and electricity is available to all residents. Measures should not be solely based on cost of electricity per kWh (kilowatt hour) as is often the case in the Baltic countries. Evaluating the long-term contribution to the economy is vital. Considering the creation of jobs and availability to the public also. Undeniably Kwh price is important, but as calculations of the new Lithuanian nuclear power plant construction projects demonstrated it is false to take only KWh price after reactor construction and operating costs, for example, compared to the biomass combined heat and power (CHP) plants, that have a higher first-cost. The costs of KWh of nuclear power plants did not include nuclear waste storage costs after closing of the station. This would make it a much more costly project, in economic and human and environmental safety terms. Another thing that was not included in the calculations was the number of jobs and effect to national economics that this sector could create. Development of Biomass combined heat and power plant in Latvia alone could create up to 10 000 new jobs and expand energy infrastructure. In case of an emergency situation; one station could easily be compensated with others, thus creating a secure energy environment.

Our countries should be able to look globally and coordinated to the energy market. We need to act locally, but **in a way that new projects and infrastructure empowers citizens with economic, environmental and social benefits.**

Bulgaria's Energy Security: Current Issues and European Policy Options

By Ruslan Stefanov, Director of the Economic Programme
and
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Center for the Study of Democracy (CSD), Bulgaria

When the gas crisis between Russia and the Ukraine unfolded in the cold January of 2009 Bulgaria was one of the worst hit countries in the EU. The crisis reminded of the remnants of an invisible Iron Curtain **– in energy Central and Eastern Europe was still more connected to Russia than to its partners from the EU-15[11].** The EU responded by developing a package for market liberalisation, planning interconnections and new supply routes, and deploying crisis response plans. These were supposed to guarantee transparent, secure, clean, and competitive supply of energy to its citizens, but most importantly to its new member-states by 2013.

Although progress has been made, if one looks at the news coming from Bulgaria during the last year it seems the EU's energy plans have failed to meet expectations. Social protests on rising electricity prices have toppled the Bulgarian government in February 2013. Three chairs of the energy regulator have changed in the past year on allegations of mismanagement. In August 2013, the Bulgarian government has stepped in to administratively reduce electricity prices. In June 2013 Bulgaria, and the Nabucco West consortium lost the competition for hosting the European Southern Gas Corridor. In September 2013 the Bulgarian government was bullied to sign off to building the South Stream gas pipeline, in a deal reminiscent in its lack of clarity to the construction of a second nuclear power plant in Belene, which was given up in 2012 but continued to drain scarce public resources. Similarly, the South Stream price tag for Bulgaria has increased in the past five years from 1.8 billion euro to 3.5 billion euro. In the meantime the European Commission has initiated a number of infringement procedures at the EU Court of Justice against Bulgaria on, among others, failure to transpose liberalisation and energy efficiency directives, not ensuring reverse flows of its existing pipelines, etc. Bulgaria has not yet built gas interconnectors with its neighbours although the EU secured partial co-funding. So it was no surprise that the Bulgarian Minister of Economy and Energy was the first to warn of the possibility of a new gas crisis between Russia and the Ukraine in November 2013[12].

Bulgaria is in a unique energy security position in the EU[13]. It is the poorest member-state. Energy poverty comes as the most serious energy security risk for the country with pervasive political and economic implications.[14,15] In energy terms Bulgarian households have grown poorer during the last

[11] Stefanov, R. et al (2011), Energy and Good Governance in Bulgaria: Trends and Policy Options, Center for the Study of Democracy, Sofia, 2011.
[12] EurActive Newsletter: Energy, *Bulgaria warns of new gas crisis*, November 8, 2013.
[13] CSD (2013) *Bulgaria's Energy Security Risk Index*, Policy Brief No. 40, Center for the Study of Democracy, Sofia, September 2013.
[14] Bulgaria, Ministry of Economy and Energy, (2011), *National Security Strategy of the Republic of Bulgaria*. Accessed from: http://www.mi.government.bg/files/useruploads/files/national_strategy1.pdf

decade – in 2002 the average household spent 10.3% of its income on energy, and in 2013 this figure rose to 14.4%[16]. In rural areas 95% of the households use coal and wood for heating. In urban areas their share is still staggering 38%, which contributes to very poor air quality in Bulgarian cities. Some 39% of the Bulgarian urban population uses electricity for heating. This has made rising electricity prices, the lowest in the EU, an explosive political issue. In comparison less than 1% of the population uses gas[17]. Because of a continuing lack of alternative supplies Bulgaria pays the fifth highest price for gas in the EU. Due to its very low GDP and the high levels of hidden economy, aging energy infrastructure, and deep-seated patterns of inefficient energy consumption (both industrial and residential), Bulgaria faces abnormally high energy security risks on all energy intensity dimensions.

That is why, **focusing on energy efficiency and on developing alternative gas supplies and tapping into lower gas prices to help develop household gas and central heating consumption are the most viable options for lowering the energy security risks for Bulgaria in the future.** These options align well with European energy priorities on delivering clean, competitive, and secure energy. Bulgaria should focus its severely constrained resources on implementing and leveraging EU policies, which seems not to have been the case so far. At the same time, following Nabucco's demise, it becomes particularly important that the EU takes bolder actions towards a more proactive role in securing EU's common energy interests in Southeast Europe. Such actions should focus on expansion of SEE gas interconnections, access to LNG supplies, developing of indigenous production, and stepping up protection against abuse of a market dominant position by suppliers.

[15] Bouzarovski – Buzar, Stefan, *Energy poverty in the EU: a review of the evidence*, paper presented at Workshop and Conference on Energy Efficiency – EU Regional Policy, Brussels, Belgium, November 29 – 30, 2011.
[16] Based on data from Eurostat.
[17] Data on energy usage is based on the last census in 2011 and is provided by the National Statistical Institute.

The future for the Single European Electricity market

By Steve Thomas

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The assumption behind the EU's Electricity Directive was that electricity generation could be transformed from a monopoly service to a competitive market. National and sub-national monopolies would be replaced by a Single European Electricity Market under which prices would be the same across the whole Union. Competition would reduce prices to consumers and would allow retail competition, under which consumers would be able to choose their electricity supplier. To achieve this, the Commission assumed that the networks would remain monopoly services open to competing companies on equal terms. The Commission chose to achieve this by requiring legal 'unbundling' of the networks, so network owners have no interest in the competitive markets.

The objective of creating sustainable wholesale markets: where the wholesale price would be set; which would have sufficient liquidity to ensure barriers to entry for new generators and retailers were low; and which would provide reliable price signals to stimulate sufficient investment to ensure security of supply had not been met a decade after the Directive was introduced. Whether this objective was achievable in the absence of climate change policy constraints is not clear. It is arguable that if wholesale electricity was genuinely competitive, implying that a generator could not be able to predict how much power they would sell and at what price, the investment needed for new generation would be too risky for it to be financeable. The fact that security of supply has been maintained may be explained by the lack of competition in the markets so that the companies are able to maintain more than enough plant to ensure security without having to keep unprofitable plants on-line. National systems are effectively monopolies or duopolies or at best, oligopolies. The companies have not been prevented from integrating generation and retail so they can bypass the wholesale market selling their generation to themselves.

However, the dominance of climate change issues in energy policy in the past years has changed the situation. For the foreseeable future, new generation will have to be 'low-carbon' and this will have significantly higher costs per kWh generated than coal or gas-fired plants. **If mechanisms outside the market are not introduced, low-carbon sources will not be built and climate change targets missed.** Typically this requires 'feed-in tariffs' or 'capacity auctions' both of which provide generators with

assured volumes and prices outside the market. Until and unless low-carbon sources are as cheap as the cheapest alternative, the scope for a competitive wholesale market will diminish as generation is taken over by sources covered by long-term contracts. As the available wholesale market diminishes, it will be impossible to build gas and coal plants for the market.

These changes will require a comprehensive change in the Directive. Wholesale markets, at least ones that set the wholesale price and provide investment signals, will not be feasible. New mechanisms, such as the Single Buyer, will have to be introduced to ensure new investment and security of supply. With electricity purchasing increasingly centralised and not open to competition, the basis for retail competition will disappear. Generation accounts normally for more than half the consumer price and if the wholesale price is set centrally by power bought under long-term commitments, retailers will pay the same for their generation. **Network charges are already standardised so there will be no scope left for competition. If there is no competition, the rationale for unbundling disappears.**

Europe cannot afford the energy *status quo*

By Patrizia TOIA MEP

S&D group in the European Parliament

How to foster industrial competitiveness, create jobs and growth, and halt climate change are three of the most pressing issues of our time, all of which are intrinsically linked to our energy policy and the strategic decisions which need to be made over the coming years but which will have extraordinarily long-term impacts and consequences for our future competitiveness and prosperity.

Europe finds itself at an energy crossroads. The diagnosis is as follows:

- Its energy **infrastructure** is ageing and needs to be replaced in the coming years at enormous cost, estimated at some €1 trillion by the European Commission.
- There is a grave cost of living crisis with energy prices causing concern in households and businesses across the Union.
- The **shale gas** boom in the US is having a knock-on effect, enabling cheap coal imports into the EU, thus incentivising the construction of new coal power plants, yet fossil fuel abatement technologies such as CCS have not been proven to work efficiently on a large scale.
- The current weak **ETS** is proving to be ineffective and the chronically low carbon price is doing nothing to promote investment in clean technologies.
- The coming year will see negotiations on a **new climate and energy package for 2030**, building on the 2020 package, with its headline 20/20/20 targets on Greenhouse Gas emissions, renewable energy and energy efficiency.
- The EU spent €406 billion on **imported fossil fuels** in 2011 - equivalent to €700 per head of population. This energy dependency leaves the Union vulnerable to world energy prices and political shocks and also compromises foreign policy autonomy.

The imminent strategic decisions which need to be taken will be crucial in defining how our energy system, and indeed whole economy, will look in the coming decades. It is clear that the *status quo* is untenable and a progressive vision for the future should put forward measures for a new energy system.

Some would have us believe that we can continue along the same road as today by replicating the shale gas boom of the United States. However, it is clear that there can be no such boom in the

European Union, given our different geography, high population density and land-ownership laws. We should not be deterred by such easy, but ultimately wrong answers. Neither should we let those vested interests defending the large energy companies tell us that any changes will be too costly to make.

In fact, the Commission's energy roadmap 2050 finds that decarbonisation of the energy sector through renewable energy is cheaper than a continuation of current policies, as over time prices of energy from nuclear and fossil fuels will rise, whereas the cost of renewables will keep falling. What's more, this finding does not take into account the huge potential still available through energy efficiency, which with the right incentives can become a new European success story, creating growth and a new European industry sector based around energy efficiency services, whilst simultaneously slashing overall energy costs for energy-intensive industry. Citizens too can reduce their own energy bills through everyday actions and by taking advantage of subsidised improvements available to make their homes more energy efficient.

What ***is*** too costly is sending nearly half a trillion euros outside the EU every year. It is also too costly to use public funds to subsidise the use of mature fossil fuels to the tune of €66 billion per year (once indirect subsidies are accounted for).

The question must be asked: what if this money was invested 'domestically' in transforming our energy system? The Internatioanl Energy Agency has estimated that if the EU takes the necessary policy decisions to keep global temperatures below 2°C, the EU's annual fossil fuel import bill could be cut in half, which amounts to a massive saving of 1% of EU GDP.

Of course such policy decisions must send a clear and unambiguous signal to investors that clean, safe, sustainable energy is the future of our continent. To this end a new, ambitious and binding 2030 climate and energy package with three binding targets for GHG emissions, renewable energy and energy efficiency should be swiftly adopted and the ETS should undergo structural reform to make it fit for purpose: reducing emissions in the most cost-effective way and promoting investment in clean technology. The creation of a strong, ambitious, well-resourced green investment bank would offer a solution to one of the main obstacles to investment, the cost of finance. It would also ensure that the existing ageing infrastructure can be replaced, not like for like, but with modern, smart infrastructure, to enable integration of renewable energy, including that from small energy cooperatives and micro-generation into the grid in the most cost-effective and efficient way possible.

Such a clear and unambiguous policy framework would mean European industry would benefit from a stable energy supply, independent from world political shocks, using less energy to produce more. It would also drive a huge and much-needed economic stimulus, creating high-quality jobs, which could not be relocated outside the EU, and ensure global leadership for the EU in clean technologies, renewable energy and energy efficiency.

This is what a progressive vision for our energy system would look like and Socialists and Democrats in the European Parliament are fighting day in day out to put this vision into practice.

EU policy makers - Think not what you can do to save energy, think what energy savings can do for you.

By Adam White, Research Coordinator

WWF European Policy Office's Climate and Energy Unit

Having your own energy scenario is fast becoming the price of entry into the debate over the future shape of the EU's energy system. NGOs have them, businesses have them, and governments have them. The European Commission has many of them. If scenarios are a unifying feature of this debate, then energy efficiency is a unifying feature of those scenarios. Every new way of limiting our production of greenhouse gases depends, usually to a significant extent, on limiting our consumption of energy. Without energy efficiency, none of our plans will work. With it, all of them become cheaper, and easier to achieve. So, surely, energy efficiency should be the one thing all parties can agree on?

Sadly, the opposite is true. Energy efficiency has become the most contentious part of EU climate and energy policy making. Efficiency was left out in the cold when climate and energy policies were agreed up to 2020. While greenhouse gas emissions reductions and renewable energy generation were given the high level political support of legally binding targets for Member States, energy efficiency was only given an indicative target. The weakness of the signal from policy makers makes it hardly surprising that the EU will miss its goal to reduce energy consumption by 20% against business as usual projections, unless further action is taken.

At the crux of the problem is a question of perception. Do you consider using less energy to be positive, or negative? Do you think about what you have to do to save energy, or do you think about what saving energy can do for you? Those in the first group see limitations to economic growth, upfront payments for building renovations and more efficient equipment, and other short term costs. Those in the second group see long-term savings on fuel bills, reduced dependence on imported fossil fuels, and lower emissions, among other long-term benefits. It seems support for stronger action on energy efficiency varies with the length of the time horizon you are looking at.

How can these two viewpoints be brought together? How can each side of this divide come to balanced and acceptable views of both the costs and the benefits? Could new actors in the debate, such as those who allocate and receive regional and structural EU funding that is often directed towards efficiency, raise the ambitions of policy makers to the point that energy savings take their rightful place at the centre of EU climate and energy policy?

WWF's European Policy Office recently completed new research into exactly these issues, and has developed 6 key principles for achieving more momentum and greater ambition on energy efficiency:

1. The development of future energy savings policy must be coordinated with the development of other climate and energy policies, and included in a 2030 framework;
2. Policy makers should not wait until the 2014 Energy Efficiency Directive review of progress on the EU 2020 energy savings target before preparing options for the 2030 framework. This would mean missing, yet again, the timeline of the other energy and climate policies. It is simply asking for failure;
3. Coordinated climate and energy policy development must include detailed modelling of the interaction of binding targets on energy savings, renewable energy, and CO2 emissions reductions (including through the EU ETS);
4. The effective and timely implementation of the EED by EU Member States is crucial to realising the long term potential for energy savings;
5. A binding EU target does not exclude binding measures - the two approaches can be complementary;
6. The agreement to spend at least 20% of the EU's Multiannual Financial Framework (MFF) 2014-2020 on climate action must be implemented, with appropriate funding channelled towards the delivery of energy savings.

Ensuring that future policy making is based on these principles will require a break with the failures of the past. The small world of Brussels law making, which becomes smaller still when it is focused on climate and energy in general, and energy efficiency in particular, means this will not be easy. However, the same WWF research, which included interviews with key players in negotiations over EU energy efficiency policy, highlights three important positive insights:

1. The new context of prolonged economic crisis puts greater premium on saving money by saving energy – for example, meeting the 20% energy savings target would save households over €1,000 each per year;
2. Measures whose primary aim is addressing the economic crisis also provide new opportunities for delivering energy savings;
3. These new opportunities are bringing new actors into the energy savings policy sphere.

New actors will bring a new perspective, unburdened from old arguments. But we must help them to learn fast - by this time next year, the 2030 climate and energy framework should be nearing conclusion.

There is no time to lose.

Why we need a strong EU to achieve a global energy agenda

By Christophe Yvetot, UNIDO representative to the EU and Florian IWINJAK, Programme and Liaison Officer at the UNIDO Brussels office

UNIDO – United Nations Industrial Development Organisation

The UN has recently been at the forefront of addressing the global energy challenge. Last year was the Year of Sustainable Energy for All (SE4ALL), an initiative by the UN Secretary General, endorsed by the UN General Assembly and lead by the United Nations Industrial Development Organization (UNIDO). **The three objectives that underpin SE4ALL are firstly ensuring universal access to modern energy services, secondly doubling the rate of improvement in energy efficiency and thirdly doubling the share of renewable energy in the global energy mix, all three to be achieved by 2030.** [18] These goals are mutually reinforcing and apply to developing countries, countries in transition as well as industrialized countries under the principle of "common, but differentiated responsibility".

By the end of 2012 more than 50 governments have made formal commitments to SE4ALL. Moreover, 23 governments, representing 90% of global market for clean energy and a large share of global GHG emissions, supported SE4ALL at the 3rd Clean Energy Ministerial (CEM) in London in April 2012. Businesses and investors committed more than USD 50 billion towards the initiative's three objectives.[19] Due to the success of the Initiative as well as the importance and urgency of the issue, the UN General Assembly adopted a resolution to have a SE4ALL decade from 2014-2020[20] and created a SE4ALL secretariat headed by former UNIDO Director General Kandeh K. Yumkella in order to sustain momentum and monitor progress.

The EU fully supported the SE4ALL initiative by organizing a SE4ALL summit with the UN Secretary General Ban Ki Moon and the President of the European Commission Barroso as well as development ministers from EU member states and partner countries in April 2013, pledging EUR 500 million for

[18] SE4ALL (2013): Our vision and objectives. http://www.se4all.org/our-vision/our-objectives/
[19] UNSG's High Level Group on SE4ALL (2012): Report of the Co-chairs.
[20] UNGA (2012): 2014-2024 United Nations Decade of Sustainable Energy for All. http://www.un.org/News/Press/docs/2012/ga11333.doc.htm

SE4ALL.[21] However, the EU's commitment to a sustainable energy agenda has a long history and accelerated over the last years culminating in the landmark energy and climate change package also known as the "20-20-20 package" in late 2008[22].

In a declaration, the European Parliament also requested the European Commission to realize the Third Industrial Revolution (TIR)[23], a concept by Jeremy Rifkin which outlines a socio-economic vision and rationale for moving strongly towards renewable energy.[24] In presence of EU Commissioner Potočnik, the TIR was also discussed by UNIDO's 173 member states at its 14th General Conference in Vienna in 2011. In practice UNIDO is supporting the TIR and SE4ALL through its Green Industry Initiative, aiming at greening existing industries and creating green industries. This includes resource/energy efficiency measures in the real economy and access to renewable energy for productive use, technology transfer, and phase out of ozone depleting substances.

While the EU has proven to be pioneer on the global landscape to move forward a progressive and sustainable energy and climate change agenda, it will be important to sustain this positive momentum. Having in mind the ultimate goal of clean, secure, affordable and accessible energy for all, there is a need for reinforced European coordination and cooperation on energy policy both within the EU as well as with its partners outside. At a time where climate discussions under the COP are in difficulties, the EU has stressed the importance of International Cooperative Initiatives (ICIs), which are voluntary mitigation partnerships which can operate at a number of levels[25]. SE4ALL, UNIDO's Green Industry Platform (GIP) or the EU's European Resource Efficiency Platform (EREP) represent new action-oriented multi-stakeholder platforms to take this agenda forward.

As these platforms did, it will be critical to bring the private sector and financial sector on board to steer investments towards the necessary sustainable energy infrastructure and technologies. With $2.9 trillion of savings by 2030 the business opportunities and potential to move on resource efficiency is huge[26]. **While binding conventions and legislation will play a key role on the global, regional and national level, many other tools exist to move our economies, industries and energy systems towards a more sustainable and greener direction.** This can range from environmental/ carbon taxes, norms and standards, over green public procurement, voluntary agreements to eco-arks and education and training.[27] Research, Innovation and Development will play a key role in this transition and the EU's new research programme "Horizon 2020" already points into the right direction. Europe as the world leader in eco-efficient technologies[28] can be expected to benefit from a first mover advantage. However, technological change will need to be accompanied by behavioral change, both in Europe and elsewhere.

[21] EC (2012): "Energising Development": Commission's new initiative to help achieve energy access for all by 2030. http://europa.eu/rapid/press-release_IP-12-372_en.htm
[22] Euractive (2009): Energy and climate change: Towards an integrated EU policy. http://www.euractiv.com/energy/energy-climate-change-integrated-linksdossier-188405
[23] UAPME (2013): EU Parliament Declaration on energy and the economy. http://www.ueapme.com/IMG/pdf/EU_PARLIAMENT_DECLARATION_ON_ENERGY_AND_THE_ECONOMY_final.pdf
[24] Rifkin, J. (2013): The Third Industrial Revolution: How Lateral Power Is Transforming Energy, the Economy, and the World. Palgrave MacMillan
[25] IIEA (2013): The Dog that didn't Bark at Doha: International Cooperative Initiatives. http://www.iiea.com/blogosphere/the-dog-that-didnt-bark-at-doha-international-cooperative-initiatives
[26] McKinsey (2011): The Resource revolution: Meeting the world's energy, materials, food and water needs.
[27] UNIDO (2011): UNIDO Green Industry: Policies for supporting Green Industry.
[28] EEA (2012): Environmental technology. http://www.eea.europa.eu/themes/technology/intro

Certainly the EU's 20-20-20 package with its clear and ambitious goals has inspired the SE4ALL Initiative. Now the SE4ALL has created an equally ambitious global agenda for energy for 2030 which is strongly supported by the EU. In the spirit of this fruitful dialectic it is up to the EU again to define yet another forward-looking energy and climate change agenda for Europe. The UN and UNIDO certainly welcome the EU's strong role in this area and hope that others around the world will follow for the benefit of making sustainable development a reality.