The Greens | European Free Alliance
in the European Parliament

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A Green Energy Union

An investment agenda to create jobs in Europe, contribute to halting climate change and restore EU geopolitical capital

1. Why do we need a Green Energy Union?

In 1952, six EU countries launched the European Coal and Steel Community, pursuing a common policy for coal and lignite. In 1957, nuclear energy was also incorporated into European policy by way of the Euratom Treaty. These commodities constituted the energy sources of the 20th century.

We know that these fossil energy sources are finite, and we can see ever more clearly what devastating consequences our excessive consumption of these fuels has on the planet. Nuclear energy cannot offer an alternative either, due to the associated risk, the unsolved waste problems and further technological and resource dependencies. Right now, we have the unique opportunity to save the world from a climate catastrophe. According to the International Energy Agency, "no more than one-third of proven reserves of fossil fuels can be consumed prior to 2050" if we are to stay under the 2°C limit[1]. A large part of the world's fossil fuels must therefore remain in the ground and investments in fossil energy must be directed towards renewables and greater energy efficiency.

The role of the EU is key: we are the world's third largest polluter and therefore have an obligation to be a strong force driving international climate policy forward. Yet, the countries of the EU pay out more than €1 billion every day[2] for imported oil, coal and gas: in 1990, we imported 62% of our energy needs; by 2008 this had risen to 75%. This money could be much better spent on overcoming the current crisis, namely on more jobs, better social services and sustainable energy.

The Russia-Ukraine crisis has only reinforced what we already knew: that energy security is a major issue for the EU and its Member States. Energy has been used as a geopolitical weapon by all countries around us. Meanwhile, EU Member States continue to negotiate energy contracts bilaterally. The time has come for us to

1 Otherwise we will exceed the limit of a 2°C rise in average temperature that climate scientists believe will unleash truly disruptive ice melt, sea level rise and weather extremes. This has also been echoed by President Obama: "Science is science. And there is no doubt that if we burned all the fossil fuel that's in the ground right now that the planet's going to get too hot and the consequences could be dire...We're not going to be able to burn it all."
2 http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014DC0330&from=EN

engage in more Community-oriented negotiations. This means greater transparency, a veto right for the European Commission to block bad energy deals which are not in the interest of the European Union, and qualified majority voting on all energy matters in the Council.

All EU citizens need to have access to an affordable, secure and sustainable energy system that is independent of imported fuels and risky technologies and prioritises energy savings through higher efficiency. It is high time for a 21st century vision of energy – a Green Energy Union.

2. What is a Green Energy Union?

As early as 2007, Greens started to discuss and elaborate a vision for a European Community for Renewable Energy (ERENE)[3]. The idea was to re-launch the European project and make the benefits of the European Union accessible to all citizens through a common plan for developing renewable energy. The objective of giving tangible expression to European solidarity through a common green energy plan was also taken up by other organisations[4] but remained low on the political agenda.

In the wake of the Russian-Ukraine crisis and the subsequent focus on European supply security and energy dependence, the topic finally moved up the political agenda: Ukraine is not only highly dependent on Russian gas supplies for its own economy but it also plays a pivotal role as a transit country for the Eastern European Member States. Additionally, dependence on coal imports and nuclear fuels and technology from Russia to the EU further aggravates the situation of energy dependence.

In general, EU dependence on Russian energy deliveries has once again been highlighted as a weakness that needs to be urgently addressed. Starting with the controversial Tusk proposals[5], the discussions reached the level of the heads of European governments[6]. While Greens can endorse the general spirit of the Tusk plan, which requires EU Member States to work together when negotiating energy deals and act in a spirit of solidarity, the call for greater reliance on domestic fossil resources such as coal and shale gas goes in the wrong direction, as it fails to address the issues of long-term economic sustainability and climate change. As domestic fossil fuel resources, even if fully exploited, could not satisfy current EU energy needs, the plan also fails to offer a comprehensive strategy for substantially reducing overall EU energy imports.

At the same time, it makes a lot of sense to reduce our overall energy bill. According to the Commission, the EU's (net) oil and gas import bill in 2012 amounted to more than €400 billion or approximately 3.1% of the Union's GDP[7]. For years it has been clear that the right way to reduce the world's biggest wealth

3 Former Green Commissioner Michaele Schreyer published a paper on a European Community for Renewable Energy ("ERENE") with the Heinrich Böll Foundation as early as 2008 (http://www.boell.de/en/content/erene-european-community-renewable-energy) and Greens have advocated the idea of a fully renewables-based EU since 2009.
4 *Notre Europe* study: "Towards a European Energy Community"
5 http://www.ft.com/cms/s/0/91508464-c661-11e3-ba0e-00144feabdc0.html#ixzz2znJO7G7m
6 http://www.sueddeutsche.de/news/politik/international-merkel-stuetzt-tusks-energie-vorschlaege---greenpeace-warnt-dpa.urn-newsml-dpa-com-20090101-140425-99-07762
7 European Energy Security Strategy Communication: http://ec.europa.eu/energy/doc/20140528_energy_security_communication.pdf

transfer from one economic zone (EU) to a handful of oil and gas countries lies in increased use of renewable energy sources and further efforts in energy savings and efficiency.

Energy efficiency, renewable energies and better interconnectivity of the EU's gas and electricity networks have been dubbed the three "no-regret options" proposed by the Commission and supported by both the Council and the European Parliament. Greens have in mind an Energy Union that is beneficial to the planet and all of its citizens:

A Green Energy Union means a common energy policy in the EU based on renewable energy and energy efficiency, enabling us to actively and democratically address the most important challenges of our time.

Currently, EU Member States – except for a few limited common policies – have different goals for their individual energy policies, resulting in higher costs, policy and system inefficiencies, and a weaker international voice for the EU in relation to energy supplier countries and the international community, for example in the areas of fuel imports and climate change.

Amid the current crisis and in the run-up to the Paris climate negotiations, stepping up our cooperation on energy policy is essential if the EU is really to change the geopolitical landscape and make a difference in the field of climate change. A common EU approach is the best option, as it would allow all EU Member States to effectively address the most pressing challenges of our times, namely the economic challenge, the energy dependency challenge, the democracy and social challenge and the climate change challenge.

- The economic challenge

The EU's dependency on fossil fuels has caused major problems for EU economies due to the above-mentioned wealth transfer through imported energy commodities, often purchased at volatile prices. It is not just companies, consumers and the environment that suffer as a result of this. The high import costs have also contributed heavily to net new borrowings in several EU Member States and are threatening the stability of the eurozone.[8]

Moreover, the current crisis is characterised by unprecedentedly high unemployment rates, rising poverty and increasing social inequalities. In the European Union today, over 25 million people – more than 10% of the economically active population – are out of work. The situation faced by young people is even bleaker, with almost one in four young adults aged under 25 now jobless. In the hardest-hit European countries such as Greece and Spain, over half of all young people are unemployed and austerity policies are only exacerbating the situation.

Putting our economies on a sustainable path can help us to resolve these pressing problems. By building economies based on renewable energy, energy efficiency and resource efficiency, we can provide high-quality green jobs to fight unemployment, save money, reduce macro-economic imbalances, build resilient economies and at the same time combat climate change and environmental decline. Remaining a

8 http://www.sven-giegold.de/wp-content/uploads/2012/05/120418-eurokrise-ENG-final03_webversion.pdf

'green leader' would enable the EU to generate exports worth an additional €25 billion per year, cut energy bills by as much as €350 billion per year by 2050,[9] and reduce our dependency on imported energy.

If we can ensure the strong involvement of social partners, establish targeted training and education programmes and implement ambitious, stable policies designed to foster innovation and green investment, millions of sustainable, decent and high-quality green jobs can be created, many of them in local small and medium-sized enterprises throughout Europe, and thereof many in the renewable energy and energy efficiency sectors. Commission analysis shows that more jobs are being created in these sectors than those lost through decarbonisation of the economy.[10]

- The energy dependency challenge

EU Member States currently depend on imports from other countries for 90% of their oil needs, 95% of their uranium needs, over 60% of their gas needs and more than 40% of their solid fuel needs, including hard coal.[11]

If the EU is to increase its security of supply, this import dependency must be drastically reduced by means of a radical fuel switch to renewable energy sources and through ambitious energy efficiency measures.

As stated earlier in this text, domestic shale gas development or other "new technologies" for conventional fuels cannot be an alternative to bring our energy dependency down. Even apart from climate and ecologic effects, a growth strategy based on an accelerated consumption of finite natural resource can never be sustainable. Calling for such a strategy under the false excuses of "a challenging security context" and/or "a risk to the competitiveness of EU industry" is wrong: Certain renewable energy forms are already cost-effective in Europe and their respective industries contribute to EU exports and local job creation; all forms of renewables are clearly the cheapest option, once all external costs are factored in. Combined with an ambitious efficiency strategy, real EU industrial competitiveness can be assured, also in a difficult security context, and also for future generations, in a spirit of solidarity.

Solidarity between EU Member States would allow all Member States to obtain almost 100% of their energy from sustainable sources by 2050[12]. The different renewable energy potentials of EU countries could balance and complement each other. For example, Eastern European countries have great potential for generating energy from sustainable biomass and hydropower, as well as wind power in the Baltic Sea, while southern countries could contribute their high solar power potential and northern countries wind and sustainable hydro power.

9 European Climate Foundation, 2010. Roadmap 2050: A practical guide to a prosperous, low-carbon Europe.
10 2050 Roadmap Analysis
11 http://ec.europa.eu/energy/doc/20140528_energy_security_study.pdf. Additionally, some Member States are in particularly vulnerable and dependent supply situations. This would also apply to island and outermost regions of the EU.
12 http://www.greens-efa.eu/fileadmin/dam/Documents/Studies/Öko-Institut%20(2010)%20-%20Vision%20Scenario%20EU-27%20Report%20(final).pdf

The biggest challenges lie in energy consumption by buildings and transport:
- With buildings consuming 40% of our energy, there is massive scope for reducing energy demand in the housing sector. Deep renovation for existing building stock and zero-energy construction for new-build homes must become the standard, along with use of the most energy-efficient appliances, in order to generate electricity savings through ambitious and effective eco-design and labelling.

- Traffic and transport (cars, trucks, trains and aircraft) are major consumers of energy in Europe. Transport demand is constantly on the increase, as is energy consumption. If nothing is done, the growing aviation sector, in particular, will cancel out all the progress made in energy efficiency elsewhere. Sustainability criteria need to be established for transport fuels and biomass in general and there must be standardised rules throughout the EU, including in the criteria governing Structural Funds financing mechanisms. In addition, energy efficiency and energy demand reduction have a key role to play in the transport sector. With strategies available and their feasibility demonstrated by pilot projects, it is now high time to act by implementing a shift in mobility and boosting vehicle efficiency.

All of these measures will reduce our dependence on energy imports, enhance the quality of life of our citizens and thus increase the EU's energy security both effectively and sustainably. It will also increase our geopolitical capital vis-à-vis other regions.

- The democracy and social challenge

The full harnessing of regions' renewable and energy efficiency potential implies continued development of decentralised renewables throughout the EU. This would facilitate the development of a more participatory energy system. In general, we see better system regulation, regionalisation and energy cooperatives or similar public models as key tools in future energy policy, paving the way for a broader use of renewables and delivering cost-effective solutions. More democratic ownership models such as renewable cooperatives will continue to gain ground. These represent an important economic factor for the further expansion of sustainable decentralised energy and it fits best with the radical energy transformation needed.

We also aim for realising the potential of our rural areas, with energy self-sufficiency projects (based on renewables and energy extraction based on waste[13]) for farmers and rural areas as part of the territorial approach, creating vibrant rural economies. Equally, municipalities and cities that go ahead with sustainable energy projects by involving citizen and joining-up infrastructure and investments policies are to be supported. Transition towns, the Covenant of Majors or cities associated in the Climate Alliance are some of the very positive initiatives in this field.

At the same time, citizens' commitment to and support for the energy transition must be rewarded by allowing them to reap the associated benefits, including the economic benefits. Macro-regional investment programmes in regions of high renewable energy potential, as well as decentralised and cooperative energy projects, are key to ensuring green energy supply.

13 e.g. sewage sludge and slurry as opposed to fuel from food crops, to avoid conversion of land outside of the EU i.e. ILUC or Indirect Land Use Change

Greens are opposed to policies that shift the costs of the energy transition onto citizens while giving industries a free ride, not least because there are significant social challenges associated with the energy sector. Some 50-125 million EU citizens[14] are affected by energy (or fuel) poverty. These households are unable to heat their homes or to afford adequate energy services; they tend to live in energy-inefficient buildings and are often behind on payments for utility bills. In addition, energy poverty is associated with a wide range of physical and mental illnesses. Particularly in Eastern and Central Europe (but also in the Mediterranean EU countries), many households are unable to escape energy poverty and make the necessary investments due to their unfavourable financial situation.

Consequently, policy efforts in this area need to be accelerated. There is a need for a clear and comprehensive energy poverty alleviation strategy across Europe that takes into consideration various factors beyond income or energy prices (subsidies, tariff policies). Potential synergies between building efficiency, social welfare and climate mitigation need to be exploited and appropriate measures including financial instruments need to be defined and implemented in all European countries. There must also be no further undermining of binding policy goals.

- The climate change challenge

Right now, we still have the chance to save the world from a climate catastrophe. If we continue business as usual, humanity's emissions budget will be used up within 27 years – assuming that we want to avoid heating the planet by more than 2°C. To halt climate change globally, 80% of known coal, oil and gas deposits will have to remain in the ground and not a single new fossil fuel-fired power station can be built from the year 2017 onwards.

In these critical times, the EU's climate and energy policy – aimed at creating an ecologically sustainable, competitive and self-sufficient energy system – is vital to maintaining an ambitious EU policy and to making progress at the important 2015 climate summit in Paris, where the world is supposed to unite around a global climate treaty. EU climate and energy policy has major shortcomings, such as those related to the current performance of the Emissions Trading System (ETS), but nonetheless points in the right direction. Also, key pieces of EU legislation, such as the Renewable Energy Directive and the Energy Efficiency Directive, have proved their effectiveness and delivered positive results. These policies therefore need to be enhanced and taken seriously.

14 European Fuel Poverty and Energy Efficiency project

3. Instruments and tools for a Green Energy Union

a) A radical investment strategy geared towards sustainable solutions

Investing in forms of energy that are not future-proof over the long term is irresponsible. To find an answer to energy and climate issues, we must harness all the investment power of industry, citizens and government. There is no point trying to rescue the dying oil, coal, gas and nuclear sectors, as these are the energy sources of the last century (see above). Our current energy system is very costly. Apart from the cost of imports for fossil fuels[15], we have to consider the costs of delaying action to avoid dangerous climate change[16] and also factor in all costs of climate change-related natural disasters, as well as costs incurred through fossil fuel subsidies.

- Phase out all direct and indirect fossil fuel support -

The European Union and its Member States must immediately phase out support for fossil fuels and nuclear, including indirect support such as lower taxes or other forms of state aid. These subsidies[17], together with badly designed regulated price systems, hamper all efforts to achieve a more sustainable energy system. EU Member States that are part of the G20 have already committed to this objective by 2020 and the remaining EU Member States should do the same by 2025.

- Phase out the nuclear and fossil fuel sector -

We must strive to find alternatives and use existing alternatives in order to eliminate coal, oil and gas from energy mixes and from other processes in which they are deployed as industrial raw materials. Member States therefore face the challenge of phasing out the coal, oil, gas and nuclear energy sectors step-by-step. This medium- and long-term transition will also necessitate coherence with commonly agreed, ambitious EU policy objectives and an in-depth analysis of financial implications.[18]

The phase-out of the nuclear and fossil fuel sectors will be based on mid- to long-term efforts focused on ensuring security of supply for all Europeans and giving all energy users time to switch to sustainable energy sources. In practice, this means achieving the goal of 80-95% greenhouse gas emission reductions compared to 1990 levels by 2050 as stipulated by the European Council[19] and achieving a nearly 100% renewables-based, highly efficient European economy by 2050.[20]

15 Savings generated by declining energy imports, estimated at €130 billion per year in 2020, €260 billion per year in 2030, and €455 billion per year in 2050

16 Stern report

17 COM sponsored energy subsidies and cost report http://ec.europa.eu/energy/studies/doc/20141013_subsidies_costs_eu_energy.pdf

18 Power plants with the poorest balance concerning safety, efficiency and external costs in production should be shut down first, i.e. lignite and nuclear energy.

19 http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/envir/119875.pdf

20 http://www.greens-efa.eu/fileadmin/dam/Documents/Studies/Öko-Institut%20(2010)%20-%20Vision%20Scenario%20EU-27%20Report%20(final).pdf

- Social measures -

For those working in the fossil sector who are most affected by the structural changes, we must ensure an effective dialogue with social partners, put forward training and upskilling measures and support their integration into new employment in a sector that is on the rise instead of one in a state of demise. The renewable energy and efficiency sector offers the potential to create millions of new, sustainable and local jobs for EU citizens. If the right political framework for 2030 is applied at an EU level, namely ambitious and binding targets for the share of renewable energy (45%)[21], energy efficiency (40%) and emission reductions (60%), up to 2 million jobs[22] could be created in the area of energy efficiency measures alone by 2020 and possibly another 2 million jobs by 2030[23], for example.

- Divestment -

Money in pension funds has to be re-directed from coal and oil to solar and wind power investments. Within the EU, pension funds, banks and insurance companies currently hold investments of approximately €1,000 billion in fossil exploitation and energy technology ("carbon bubble"). We want to create common investment rules for EU Member States with a view to a divestment strategy aimed at substantially decreasing such investments.[24] At the same time, we want to develop and support opportunities for investing in renewable energy and higher energy efficiency, mainly in non-OECD countries. The development of financial securities such as Green Bonds, Green investment funds and cooperation with the UN Green Climate Fund might be ways to implement this.
As an urgent and necessary first step, all European and international funding for coal-fired power plants must be suspended, including through national development banks.[25]

- The global perspective -

In the EU but also on a global scale, measures have to be introduced in order to make use of the savings glut, as for example with cooperative models on renewable energy projects at a decentralised level.

Furthermore, we believe that our energy can be generated on our own continent. The cultivation of raw materials for possible biofuels will also happen in Europe, provided they really are sustainable and have no detrimental effects on nature and the food supply.

Along the same lines, emission reductions in Europe must not be achieved through the 'outsourcing' of emissions, by offshoring production of goods and products to outside of the EU. Only by avoiding this will we reduce our energy dependence in a sustainable way.

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21 http://stopclimatechange.net/fileadmin/content/documents/climate%20policy/Feasibility_EFA_Greens_targets_DEF.pdf
22 COM (2011) 109 final, Energy Efficiency Plan 2011, http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0109:FIN:EN:PDF
23 The scenario based on 40% GHG reduction, ambitious explicit EE policies and a 30% RES target would generate 1.25 million additional jobs by 2030, compared to the reference scenario: http://ec.europa.eu/energy/doc/2030/20140122_impact_assessment.pdf (please note that this does not model the 40% energy efficiency target agreed by the European Parliament (in February 2014), but only a maximum of 34% savings. Adopting a binding target of 40% energy savings would boost job creation still further).
24 For more detailed information, see The Price of Doing Too Little Too Late, Green European Foundation (GEF), February 2014.
25 Some countries have already done so, including the US, UK and financial institutions such as the World Bank.

More specifically, Greens suggest the introduction of an energy savings fund (tax revenues to be used for deep renovation of 3% of the existing building stock per year)[26], as well as a European Green savings account (this would allow for investments in renewables and efficiency and would be tax-privileged)[27].

In coherence with all these strategies and tools, a certain number of other EU legislation would have to be put in place. This includes extending the Directives on eco-design and/or energy labels to all types of devices, including industrial equipment and machinery. This would also include ambitious European standards for energy-efficient industrial equipment (pumps, motors, etc.), helping industry to save even more energy (including the Top Runner approach).

Additionally, a tightening of the EU's Energy Performance of Buildings Directive is required. Not only would all new buildings have to be energy-neutral by 2020 at the latest, but existing buildings would also have to be made energy-efficient more quickly. The European Investment Bank would provide favourable financing for insulation and other energy-saving measures for buildings.

In contrast to households and industry, the transport sector has made far too little progress in recent years and is even using more (fossil) energy. The main focus is the large-scale implementation of the developed strategies.

The European Commission's White Paper on Transport would lead the approach for the transport sector. The underlying principle is the 'trias energetica' for transport: organising society to be as transport-efficient as possible (travelling shorter distances); making transport as energy-efficient as possible (modal shift and efficiency standards); generating required energy in a sustainable way (electrification, Fuel Quality Directive, bio-fuels). Existing EU laws would be brought into line with overarching energy reduction targets.

In addition, we would also apply the criteria we use for the fossil energy sector to the transport sector, i.e. there would be no incentive schemes, research funds, tax exemptions, investments, state support, etc. for modes of transport running on fossil fuels or questionable biomass. The transport sector (including aviation) would be assigned its own specific and binding CO_2 reduction target and the share of sustainable energy and energy savings

Finally, Member States should ban shale gas and fracking, in order to prevent a switch from coal to shale gas with all the unacceptable related impacts and risks.

26 Savings generated by declining energy imports, estimated at €130 billion per year in 2020, €260 billion per year in 2030, and €455 billion per year in 2050

27 Another option: After a study or impact assessment identifying the benefits of such an option, there could be a European tax on profits from the activities of energy companies involved directly or indirectly with oil, coal or gas. This additional tax on profits would start at 20% in 2020 and be increased by 1% each year. This would make profits on undesirable energy forms increasingly unattractive and give companies the chance to make their operations greener.

b) A European energy infrastructure blueprint

In order to make European solidarity a reality, the missing links in Europe's energy infrastructure must be built. A blueprint needs to be adopted in accordance with a common EU vision based on macro-regional approaches, taking into account all necessary cross-border connections as well as transmission and decentralised generation, including all necessary connections. A forward-looking EU infrastructure policy has to prioritise projects that are necessary for the transition towards a sustainable energy economy, instead of pumping public money into fossil fuel projects.

The integration of distributed energy resources, including heat from renewable energy sources, as well as the adaptation of demand patterns for energy use, is crucial. Smart grids should play a central role in ensuring reliable grid functioning and tackling the above challenges: a single smart interlinked European network could make effective use of peaks and troughs and would be cheaper than 28 national networks. Smart energy networks that communicate with each other effortlessly and without boundaries, anticipating peaks in energy demand and energy supply, are resilient, thereby safeguarding security of supply from sustainable energy sources. Starting from the trans-national and regional level, a single common structure for the missing links in that network would also be much cheaper and would do away with current inefficiencies.

Usefulness and necessity should be the guiding criteria for all infrastructure investments. Maximum effort must be made to conserve energy in order to avoid getting locked in to unnecessary investments in fossil energy. To ensure that investments fit into a concerted and common European strategy, proposals on governance of the EU infrastructure grid must be developed. New temporary infrastructure built during the transition might require particular financing solutions. Finally, all investments should be accompanied by a funded dismantling or demolition plan.

To this end, there need to be concrete assurances of solidarity in the event of impending shortages, for example in the field of gas for all Member States. Strategic gas infrastructure such as pipelines, hubs and storage facilities should be considered as strategic infrastructure, to prevent it from being taken over by third parties and thus creating new dependence. Reverse or alternatively forward flows and interconnectors are key for a common European energy network.

Investments in infrastructure for other forms of sustainable energy, such as geothermal, residual heat generated by industry, etc. should comply with assessment criteria in each case: the chosen form of energy must be efficient and necessary, e.g. for heating buildings or as fuel for vehicles for which electricity is not an option; the form of energy is not dependent on fossil sources; and production, transportation and use of the form of energy does not have any detrimental consequences for people, nature or the environment anywhere in the world, now and in the future.

In combination with the sustainable investment policy in renewables and efficiency, such infrastructure investments will boost EU supply security and make us less dependent on external energy suppliers.

c) A long-term perspective for emission reductions

The EU needs a framework that is serious about creating a long-term perspective for investors and an ecologically sustainable, competitive and self-sufficient energy system. This requires all three goals (emissions, energy efficiency and renewable energy) to be tackled, as well as common climate legislation with completely different types of instruments.

Several options are currently being discussed, building on existing legislation. One of the options is the introduction of an overarching climate policy framework, aiming at establishing a common emission reduction roadmap through to 2050 (more details below). Measures for reforming the EU Emissions Trading System (ETS) will naturally have to be part of this overarching framework, as well as ambitious and binding goals for greater energy efficiency, emissions and renewable energies.

The ETS must be revised as a matter of urgency and brought into line with the objective of limiting climate change to a maximum of 2°C compared to pre-industrial levels (i.e. for EU a 95% reduction in GHG by 2050 and a global carbon budget of maximum of 1010 Gton of CO_2). Emission reductions must be domestic: it should not be possible to use offsets from the Clean Development Mechanism or REDD+ to meet EU targets. (The EU obligation to finance climate action in developing countries must be separate from our own reduction targets).

Emissions not covered by the ETS must continue to be subject to binding annual emission reduction trajectories set according to EU Effort Sharing Decisions, applying an abatement factor for any delays in reducing emissions. A minimum auction price for CO2 allowances should be set to guarantee a stable and sufficient carbon price regardless of any oversupply on the ETS market, to maintain incentives for energy saving and shifting to renewable sources. Measures to reduce average emissions of new vehicle fleets should be continued and strengthened, in addition to other efficiency standards for energy-related products[28]

Following the recent European Council decisions on the 2030 Climate and Energy objectives, an additional measure could be to set an overall climate policy framework. Such a framework should be based on scientific recommendations, a long-term reduction goal and carbon budget through to 2050, divided into annual/five-year targets/budgets. The framework should provide for an independent Council that would follow developments in climate science, report annually on performance in meeting the targets, and provide recommendations for the Commission, Council and European Parliament. It should also find ways to address the indirect carbon emissions associated with imported goods. Several countries, among them Denmark, the UK and soon also Finland, have introduced

28 France introduced a carbon tax on the use of gas, heavy fuel oil and coal in April 2014 (on fossil consumption not covered by the ETS), which will be extended to transport fuels and heating oil from 2015; Ireland has a carbon tax, sectors outside the ETS, since 2010.

similar systems. Greens are therefore discussing the possibility of introducing a similar framework at EU level. Such a framework would be a tool to monitor the EU overall climate impact and trigger reassessment of the legislative instruments when warranted by science or experience.

A common minimum level of carbon taxes, in particular for non-ETS sectors, would make perfect sense.[29] A minimum carbon floor price within the ETS system either, in the event that installations continue to receive free allocation and a minimum auction price is not implemented. It should be noted that implementing minimum carbon tax at EU level requires unanimity in the Council and hence is unlikely to be agreed at a level which would be sufficient to alone provide the necessary incentives to ensure sustainable investments.

ETS revenues should be ear-marked for climate action in Europe and in developing countries. They should in particular be used to finance the energy transition, e.g. support for energy efficiency, renewables and emissions reductions in industry, as well as for addressing social impacts of climate policies.[30]

4. Conclusions

The Green Energy Union will pool the EU's forces and make it act in a united way in a spirit of solidarity. It will empower citizens to make their own choices on energy generation, turning them into 'prosumers'. They will actively participate in a sustainable energy economy and will be given the economic models needed to ensure that they can reap the associated monetary and non-monetary benefits.

We will once again put Europe at the forefront of the world in technological and economic terms. This will create millions of green, decent and local jobs for European citizens, and be accompanied by targeted measures to reduce fuel poverty in Europe, allow access to sustainable energy for all and help to protect the climate.

By radically rechannelling investment into the energy efficiency and renewables sectors, we will not only substantially reduce our expenditure on imports of fossil fuels but also become less dependent on supplier countries and hence increase our geopolitical capital.

We will put our economy on a sustainable path by divesting from fossil fuel-related funds and avoid the future costs associated with inaction and disaster remediation.

29 One option could be to include carbon taxation more strongly and consistently in the European semester. This would be a way to push it forward at national level.
30 One option, would be to use revenues for the energy transition, e.g. support for energy efficiency and technology upgrades and/or a portion redistributed to poor parts of the population impacted by socially undesirable regressive effects of carbon taxes.