Procedure file

Basic information

INI - Own-initiative procedure	2011/2095(INI)	Procedure completed
Roadmap for moving to a competitive low carbon economy in 2050 Subject 3.60.05 Alternative and renewable energies 3.60.08 Energy efficiency 3.70.02 Atmospheric pollution, motor vehicle pollution 3.70.03 Climate policy, climate change, ozone layer		

Key players

European Parliament	Committee responsible	Rapporteur	Appointed
	ENVI Environment, Public Health and Food Safety	ALDE DAVIES Chris	11/05/2011
	Committee for opinion	Rapporteur for opinion	Appointed
	ITRE Industry, Research and Energy (Associated committee)	S&D PIRILLO Mario	20/06/2011
	IMCO Internal Market and Consumer Protection	The committee decided not to give an opinion.	
	TRAN Transport and Tourism	The committee decided not to give an opinion.	
	REGI Regional Development	The committee decided not to give an opinion.	
	AGRI Agriculture and Rural Development	PPE GLATTFELDER Béla	28/03/2011
Council of the European Union	Council configuration	Meeting	Date
	Environment	3152	09/03/2012
	Environment	3103	21/06/2011
	Transport, Telecommunications and Energy	3097	10/06/2011
	Economic and Financial Affairs ECOFIN	3088	17/05/2011
European Commission	Commission DG	Commissioner	
	Energy	HEDEGAARD Connie	

Key events

08/03/2011	Non-legislative basic document published	COM(2011)0112	Summary
17/05/2011	Resolution/conclusions adopted by Council		

09/06/2011	Committee referral announced in Parliament		
10/06/2011	Debate in Council	3097	
21/06/2011	Resolution/conclusions adopted by Council		Summary
15/09/2011	Referral to associated committees announced in Parliament		
31/01/2012	Vote in committee		
08/02/2012	Committee report tabled for plenary	A7-0033/2012	Summary
09/03/2012	Resolution/conclusions adopted by Council		Summary
09/03/2012	Decision by Council		
15/03/2012	Results of vote in Parliament		
15/03/2012	Debate in Parliament		
15/03/2012	Decision by Parliament	T7-0086/2012	Summary
15/03/2012	End of procedure in Parliament		

Technical information

Procedure reference	2011/2095(INI)
Procedure type	INI - Own-initiative procedure
Procedure subtype	Strategic initiative
Legal basis	Rules of Procedure EP 54
Stage reached in procedure	Procedure completed
Committee dossier	ENVI/7/05827

Documentation gateway

Non-legislative basic document		COM(2011)0112	08/03/2011	EC	Summary
Committee opinion	AGRI	PE467.262	18/10/2011	EP	
Committee draft report		PE473.818	28/10/2011	EP	
Committee opinion	ITRE	PE472.209	24/11/2011	EP	
Amendments tabled in committee		PE478.402	12/12/2011	EP	
Amendments tabled in committee		PE478.426	12/12/2011	EP	
Amendments tabled in committee		PE478.425	19/12/2011	EP	
Committee report tabled for plenary, single reading		A7-0033/2012	08/02/2012	EP	Summary
Text adopted by Parliament, single reading		T7-0086/2012	15/03/2012	EP	Summary
Commission response to text adopted in plenary		SP(2012)387	18/07/2012	EC	

Roadmap for moving to a competitive low carbon economy in 2050

PURPOSE: to present a Roadmap for moving to a competitive low carbon economy in 2050.

BACKGROUND: climate change has long been recognised as one long-term shaping factor where coherent EU action is needed, both inside the EU and internationally.

The Commission recently proposed the Europe 2020 for a resource efficient Europeand is now putting forward a series of long-term policy plans in areas such as transport, energy and climate change.

One of the objectives of Europe 2020 relates to climate and energy: Member States have committed themselves to reducing greenhouse gas emissions (GHG) by 20%, increasing the share of renewables in the EU's energy mix to 20%, and achieving the 20% energy efficiency target by 2020. The EU is currently on track to meet two of those targets, but will not meet its energy efficiency target unless further efforts are made.

In order to keep climate change below 2ºC, the European Council reconfirmed in February 2011 the EU objective of reducing greenhouse gas emissions by 80-95% by 2050 compared to 1990. Some Member States have already made steps in this direction, or are in the process of doing so, including setting emission reduction objectives for 2050.

CONTENT: together with the White Paper on transportand the Energy Efficiency Plan, this Communication is a key deliverable under the Resource Efficiency Flagship. It presents a Roadmap for possible action up to 2050 which could enable the EU to deliver greenhouse gas reductions in line with the 80 to 95% target agreed. It outlines milestones which would show whether the EU is on course for reaching its target, policy challenges, investment needs and opportunities in different sectors, bearing in mind that the 80 to 95% reduction objective in the EU will largely need to be met internally.

The approach is based on the view that innovative solutions are required to mobilise investments in energy, transport, industry and information and communication technologies, and that more focus is needed on energy efficiency policies.

The Commission's detailed analysis of cost-effective ways of reducing greenhouse gas emissions by 2050 has produced a number of important findings.

(1) In order to be in line with the 80 to 95% overall GHG reduction objective by 2050, the Roadmap indicates that a cost effective and gradual transition would require a 40% domestic reduction of greenhouse gas emissions compared to 1990 as a milestone for 2030, and 80% for 2050. Building on what has already been achieved, the EU needs to start working now on appropriate strategies to move in this direction, and all Member States should soon develop national low carbon Roadmaps if not already done. The Commission is prepared to provide some of the necessary tools and policies.

(2) The analysis also shows that with existing policies, the EU will achieve the goal of a 20% GHG reduction domestically by 2020. If the revised Energy Efficiency Plan were to be fully and effectively implemented, meeting the 20% energy efficiency target, this would enable the EU to outperform the current 20% emission reduction target and achieve 25% reductions.

The Communication does not suggest setting new 2020 targets, nor does it affect the EU's offer in the international negotiations to take on a 30% reduction target for 2020, if the conditions are right. This discussion continues based on the Communication from the Commission of 26 May 2010.

(3) As well as reducing the threat of dangerous climate change as part of ambitious global action, deep reductions in the EU?s emissions have the potential to deliver benefits in the form of savings on fossil fuel imports and improvements in air quality and public health.

(4) The Roadmap gives ranges for emissions reductions for 2030 and 2050 for key sectors:

- Power (CO_2) : -54 to -68% in 2030 and -93 à -99% in 2050 ;
- Industry (CO_2) : -34 to -40% in 2030 and -83 to -87% in 2050 ;
- Transport (including CO_2 aviation, excluding maritime) : +20% to -9% in 2030 and -54 to -67% in 2050 ;
- Residential and services (CO_2) : -37 to -53% in 2030 and-88 to-91% in 2050 ;
- Agriculture (non CO_2): -36 to -37% in 2030 and -42 to -49% in 2050.

To realise these milestones as cost-effectively as possible, and to maximise benefits for EU manufacturing industries, the implementation of the Strategic Energy Technology Plan is of crucial importance. Considering the important labour market implications, the New Skills and

Jobs Agenda will need to support the transition process.

(5) The international dimension is important. The EU with little more than 10% of global emissions will not be able to tackle climate change on its own. Progress internationally is the only way to solve the problem of climate change, and the EU must continue to engage its partners.

If no firm global action is taken against climate change, temperatures might increase by more than 2°C already by 2050, and more than 4ºC by 2100. In order to avoid this scenario, science indicates that by 2050 global greenhouse gas emissions need to be reduced by at least 50% compared to 1990. With the preparation of this Roadmap, the EU is taking a new initiative to stimulate international negotiations in the run-up to Durban.

The Commission will continue to ensure that the EU ETS remains a key instrument to drive low carbon investments in a cost-efficient manner. It will also remain attentive to the risk of carbon leakage in order to ensure a level-playing field for industry.

As part of the development of the next Multi-Annual Financial Framework, it will also examine how EU funding can support instruments and investments that are necessary to promote the transition to a low carbon economy, taking into account the specificities of sectors, countries and regions.

Roadmap for moving to a competitive low carbon economy in 2050

The Council discussed key questions concerning the roadmap for moving to a competitive low carbon economy in 2050, presented by the Commission in March. The presidency noted acceptance of draft conclusions by 26 Member States and decided to issue presidency

conclusions on the roadmap which is a crucial element of the EU2020 ?Resource-efficient Europe? flagship initiative.

The Council reaffirms the EU objective to reduce emissions by 80-95% by 2050 compared to 1990 levels. It recalls the EU?s independent commitment to achieve a 20% reduction of greenhouse gas emissions by 2020 compared to 1990 as well as the EU's conditional offer to move to a 30% reduction by 2020 compared to 1990, as part of a global and comprehensive agreement for the period beyond 2012 and provided that i) other developed countries commit themselves to comparable emission reductions and that ii) more advanced developing countries contribute adequately according to their responsibilities and respective capabilities.

The Council?s conclusions stress the following key points:

- the proposed milestones for EU domestic emission reductions presented in the 2050 Low-carbon economy roadmap of 40% by 2030, 60% by 2040 and 80% by 2050 compared to the 1990 level as the basis for further work on the action needed to make the transition in a gradual, cost-effective way. The Council also notes the Commission?s finding that the 25% domestic reduction by 2020 would be in line with the pathway, consistent with the long-term climate objective;
- the Commission is invited to present timely options for delivering the reductions for the period to 2030 ; in this context, the Council stresses the need for a balanced approach that respects the principles of ?polluter pays?, cost-effectiveness, fairness and solidarity in the distribution of additional efforts and benefits between Member States;
- it is important that Member States prepare low-carbon and cost-efficient development strategies over the long-term;
- there is an urgent need to give clear signals for businesses, investors and other stakeholders, underlining that delays in the adoption of adequate measures. can generate additional costs. The Council underlines the economic and employment opportunities and challenges for the EU of increased investment in safe and sustainable low-carbon technologies. The Commission is invited to consider how public and private resources and investments could be stepped up and used more efficiently within the EU to facilitate a cost-effective transition to a low-carbon economy;
- in order to deliver the domestic reductions necessary for the transition to a competitive low-carbon economy by 2050, all sectors of the economy will need to contribute: there is, therefore, the need to integrate climate change objectives and milestones into all relevant sectoral policy areas, such as energy, transport, industry, and buildings, and specifically to mainstream mitigation and adaptation strategies into the future Common Agriculture Policy and Cohesion Policy;
- there is the need for consistency between the 2050 Low-carbon economy roadmap and all other relevant components of the Resource-efficient Europe flagship initiative, such as the Commission's recently published White Paper on Transport and Energy Efficiency Plan, as well as the forthcoming Energy Roadmap;
- the Commission is invited, based on analyses of sectoral constraints and potentials, to further develop sectoral roadmaps and policy initiatives in order to elaborate the cost-efficient reduction pathway to a competitive low carbon economy in 2050 ;
- the crucial role of R&D and demonstration of safe and sustainable low-carbon technologies is stressed. The Council calls for the implementation of the Strategic Energy Technology Plan as one of the key tools to manage the transition towards a low-carbon economy;
- the Commission is invited to further consider the possible practical modalities that may be needed to ensure that the EU Emissions Trading System (ETS) continues to reward energy efficiency and low-carbon investments in all relevant sectors of the economy while ensuring the consistency of emission reduction efforts between the EU ETS and non-ETS sectors, with due attention to be paid to the risk of carbon leakage.

The Council invites the Commission to inform the Council on a timetable for future work as soon as possible and decides to revert to these issues as soon as possible and no later than March 2012 in the light of existing and forthcoming analyses and initiatives.

Roadmap for moving to a competitive low carbon economy in 2050

The Committee on the Environment, Public Health and Food Safety adopted an own-initiative report drafted by Chris DAVIES (ADLE, UK) in response to the Commission Communication entitled Roadmap for moving to a competitive low carbon economy in 2050.

The report endorses the Commissions Roadmap to a competitive low carbon economy in 2050, together with its trajectory, the specific milestones for domestic emission reductions of 40%, 60% and 80% for 2030, 2040 and 2050 respectively, and the ranges for sector-specific milestones, as the basis for proposing legislative and other initiatives on economic and climate policy.

The Commission is called upon to:

- set interim greenhouse gas emission reduction targets for 2030 and 2040, including concrete objectives for each sector, and in particular agriculture, together with an ambitious timetable; these targets should follow a linear trajectory between current emissions levels, the 2020 objective and the 95 % reductions to be made by 2050;
- bring forward within the next two years the measures necessary to achieve the 2030 objectives, taking into account particular national capacities and potentials, as well as international progress on climate action;
- present a cost-benefit analysis of meeting the proposed pathway at Member State level, taking into account national circumstances stemming from different technological development, as well as the necessary investments (and the attendant social acceptability).

Members underline that moving to a low carbon economy would have significant potential for creating additional jobs, while securing economic growth and providing a competitive advantage for European industry.

(1) The international dimension: Members note that the worldwide development and application of low carbon technologies is increasing rapidly, and that it is essential for Europes future competitiveness to increase levels of investment in research, development and application in relation to these technologies.

It notes the shift in sustainable scientific and technological innovation away from Europe to other parts of the world, which may lead to the EU losing its technological leadership in the field and turn it into a net importer of these technologies and the related finished products. For example, China is the world leader in terms of installed wind farm capacity, that Chinese and Indian producers are among the top ten wind turbine producers, and that China and Taiwan currently manufacture most of the worlds photovoltaic panels.

Members highlight the importance of European added value for the development and domestic production of technologies and products, in particular for energy efficiency and renewables. They call on the Commission and the Member States to take steps to promote the eco-efficient

development and production in the EU of these technologies and of the new and innovative technologies that are needed to achieve the ambitious targets for the reduction of greenhouse gas emissions.

The EU is called upon to continue to play an active role in the international negotiations to finalise an ambitious, comprehensive and legally binding agreement. The EU must also continue to act constructively in global climate negotiations, and that European climate diplomacy needs to be further developed under the umbrella of the EEAS.

(2) The Emissions Trading System: the report recognises that the EU Emissions Trading System (ETS) is the principal instrument, although not the only one, for reducing industrial emissions and promoting investment in low carbon technologies. Members call on the Commission to adopt measures to correct the failings of the ETS in particular by taking the following steps before the end of 2012:

- recalibrating the ETS before the commencement of the third phase, by setting aside a significant amount of allowances so as to restore scarcity;
- proposing legislation at the earliest appropriate date to modify the 1.74 % annual linear reduction requirement so as to meet the requirements of the 2050 CO2 reduction target;
- including transport in emissions trading;
- establishing, from the earliest possible date, a reserve price for auctions of allowances, with that price being set at a level which is below the carbon price envisaged when the current legislation was approved so as to avoid carbon leakage, but is sufficient to provide reassurance for firms making long-term investments;
- stimulating demand within the ETS by proposing extensions to include emissions from fossil fuels sold from the heat and transport sectors that are not directly exposed to international competition, as also from the maritime shipping sector;
- further improving the use of offset mechanisms, for example by limiting access to offsets that subsidise Europes industrial competitors, as in the area of Hydrofluorocarbons (HFCs).

The report acknowledges that, in order to achieve the targets of the Low Carbon Roadmap, not only the ETS but also the Effort Sharing Decision (Decision No 406/2009/EC of the European Parliament and of the Council) will have to be adjusted.

(3) Carbon leakage: Members insist that the transition to a low-carbon economy should be underpinned by a reasonable and measured regulatory approach. They affirm that administratively and financially burdensome environmental compliance has a significant impact on employment and output in energy-intensive sectors, and increases the risk of carbon leakage, while also forcing businesses and therefore jobs out of the EU. They concur with the Commissions view that border adjustment measures or measures including imports in the ETS would need to be combined with full auctioning to the sectors concerned. The Commission is called upon to:

- produce an analysis of sectors for which free allocation of allowances fails to prevent carbon leakage;
- put forward proposals for border adjustment measures requiring importers of products in these sectors to purchase allowances equivalent to those which would have been required if the product had been manufactured in the EU;
- provide Member States with guidance for the adoption of any measures intended to compensate industries proven to be exposed to a significant risk of carbon leakage for indirect costs relating to greenhouse gas emissions as foreseen in the directive as soon as possible.

(4) Energy efficiency: the report calls for rapid action, greater ambition and stronger political commitment in terms of achieving the 2020 targets and looking beyond 2020, thus attracting appropriate investment. It calls for an increase in resources and measures to mobilise new sources of funding at European and national level, including through new financing instruments and highlights the importance of private investment in order to overcome the current budgetary constraints in the public sector.

It calls for acceleration of the work under the Ecodesign Directive (2009/125/EC), for strict application of the least life-cycle cost principle or for implementing measures to be set at the level of the best performers, as well as for minimum requirements also to be set for non-electrical products. Members also call for work under the Eco Design Directive to include heating equipment, boilers and insulating materials that can facilitate reductions in energy and resource use while enabling greater recycling, as well as for the extension and development of labelling requirements that can assist consumers in making informed decisions.

The report stresses the need to update the Energy Efficiency Action Plan with binding targets including a full range of genuine, quantified measures across the energy supply chain. It states that in order to achieve the 2020 energy efficiency objective an adequate degree of harmonisation of European efficiency standards should be guaranteed.

The Commission is called upon to: (i) support efforts made by Member States to promote energy efficiency by putting in place stable long-term incentives schemes to promote technologies which are most effective from a cost-benefit perspective; (ii) establish specific measures in order to tackle the reverse incentives that occur between the consumers and the distributors of energy; (iii) introduce a long-term target for the reduction of energy consumption of the EU building stock by 2050.

(5) Renewable energy: the report calls on the Commission to develop a biomass supply policy to encourage sustainable biomass production and use. It emphasises that this should include sustainability criteria for different biomass taking into account lifecycle carbon profiles of different sources, with priority being given to securing first value from biomass raw materials rather than their use for energy. Members insist that meeting the EUs biofuels target must not adversely affect food and feed production or lead to a loss of biodiversity.

They underline the important role of renewable energy, including innovative developments in this field, and the urgent need for better solutions as regards storage, increasing energy efficiency and ensuring efficient energy transmission, including appropriate infrastructure measures.

Stressing that meeting the targets set in the national renewable energy action plans is crucial for the achievement of the overall EU targets for 2050, Members consider that the Commission should take measures if national targets are not met.

(6) Power generation: the report maintains that Member States should have the widest possible means of achieving low carbon electricity generation (including renewable energy sources, nuclear power, use of carbon capture and storage technology, and sustainably produced biomass), and that none should be excluded from the range of options available to meet the requirements.

Members call on the Commission to assess the effectiveness of mechanisms that enable sound operation of the electricity market in a low carbon economy, and if necessary to submit legislative proposals for the closer integration of crossborder electricity markets and for other measures to address the need to determine the balance and availability of generation capacity. They call on the EU to commit itself to the total decarbonisation of the energy sector by 2050. They invite the Member States and the Commission to invest more in the energy infrastructure necessary for the transition to a sustainable economy.

The report draws attention to the fact that the current 20 % target is based on the contribution made by nuclear power to the energy mix in number of Member States. They reiterate that the decision by some Member States to shut down some existing nuclear reactors must not serve to justify reducing the level of ambition of their current climate policies.

(7) Transport: Members endorse the requirement of the Commission Roadmap to a Single European Transport Area to reduce greenhouse gas emissions from transport by 60 % by 2050 compared to 1990 levels in the EU. They call on the Commission to come forward with interim emissions reduction targets for the sector in order to ensure that sufficient action is taken at an early stage.

The Commission is called upon to:

- propose ways of ensuring that average CO2 emissions by new cars meet the agreed 2020 target of not more than 95g/km by 2020, and do not exceed 70g/km by 2025;
- include maritime transport in its roadmap and, in the absence of an international agreement to reduce emissions from shipping, to propose legislation so that these emissions are included in the Community reduction commitment with the aim of the proposed act entering into force by 2013;
- put forward proposals to improve the fuel efficiency of heavy goods vehicles, and, in its 2013 review of legislation on emissions from light commercial vehicles, to take greater account of the need to improve fuel efficiency so as to reduce the cost to business of increased fuel prices;
- take immediate steps to ensure that the test cycles used to evaluate emissions from new cars accurately reflect the realities of the use of such vehicles in normal driving conditions.

Members call on the Commission and the Member States to consider it a priority, with a view to reducing transport pollutant emissions, to invest in developing a pan-European intelligent energy network that can harness energy generated at local and regional level, including from renewable sources, and which helps to develop the necessary infrastructure for the use of electric vehicles.

(8) Agriculture: Members call on the Commission to propose specific measures to reduce greenhouse gas emissions and promote efficiency gains from the use of agricultural land and reduce the use of fossil fuel based fertilisers, taking particular account of the role of agriculture as producer of food (rather than fuel). They also call on the Commission to step up research on the functioning of different kinds of agriculture and effective agrienvironmental practices, with due respect for prevailing climatic conditions.

The report calls for the necessary measures, including research funding, education efforts, investment aid and other incentive-based initiatives, to be implemented under the CAP in order to support and enable the use of agricultural and forestry residue in the production of sustainable energy. It calls for specific targets for EU land use, land use change and forestry (LULUCF), ensuring the permanence and environmental integrity of the sectors contribution to emissions reduction.

(9) Financing: the report supports the proposals made by the Commission for the Multiannual Financial Framework 2014-2020 to provide dedicated funding to increase investment and promote the development and application of low-carbon technologies. It endorses the intention to mainstream climate-related funding of the total MFF and earmark 20% of the European Regional Development Fund (ERDF) for renewable energy and energy- efficient investment.

Members recall that the long-term economic costs of not taking action to prevent climate change far outweigh the short-term costs of taking strong and decisive action now. They call on the Commission to explore and consider complementary and innovative funding sources, including the potential use of regional development funds, in order to further promote the development and application of low-carbon technologies. They also call for coordinated action aimed at identifying and phasing out all environmentally harmful subsidies by 2020, in order to support budget consolidation and the transition towards a sustainable economy. The Commission is invited to publish, by the end of 2013, a communication indicating all means by which the EU budget is used to justify financial support, directly or through Member States, to activities that contradict the objectives of its Low-Carbon Roadmap.

Lastly, as regards industry, the report insists that EU support for the green economy should recognise the importance of investment by existing industries used to significantly improve the efficiency of resource use and reduce CO2 emissions and to reach the EU 2020 Strategy targets on green jobs creation.

Roadmap for moving to a competitive low carbon economy in 2050

The Council examined draft conclusions on a roadmap for moving to a competitive low carbon economy in 2050, which aimed to establish a sustainable and cost-effective trajectory to 2050, on the basis of milestones for domestic greenhouse gas emissions reductions of 40% by 2030, 60% by 2040 and 80% by 2050 compared to 1990, as proposed in the Commissions communication "A roadmap for moving to a competitive a low-carbon economy in 2050".

The Presidency and Commissioner Hedegaard pointed out that the European Council had in the last year repeatedly called for progress on the roadmap. They also stressed that the milestones were not binding targets but that the EU should give a political sign that it was willing to move forward on climate issues.

Although 26 Member States could agree on the Presidency's final compromise proposal, one Member State could not accept the provisions regarding in particular the milestones for EU domestic emission reductions and further work on the 2030 milestone.

The Presidency concluded that while it was not possible to adopt Council conclusions on the roadmap, 26 Member States supported continuing work, and that it would have to consider the situation and report on it to the European Council.

Roadmap for moving to a competitive low carbon economy in 2050

The European Parliament adopted by 398 votes to 132 with 104 abstentions, a resolution tabled by the Committee on the Environment, Public Health and Food Safety on a Roadmap for moving to a competitive low carbon economy in 2050. It endorses the Commission's Roadmap to a competitive low carbon economy in 2050, together with its trajectory, the specific milestones for domestic emission reductions of 40 %, 60 % and 80 % for 2030, 2040 and 2050 respectively, and the ranges for sector-specific milestones, as the basis for proposing legislative and other

initiatives on economic and climate policy. However, the Roadmap demonstrates that the current 20 % climate target, of which more than half could be achieved through non-domestic offsets, is not on a cost-effective pathway towards a 80 % reduction in 2050 as compared to 1990. Members note that 80 % is on the low end of the 80-95 % range, which the IPCC considered necessary for industrialised countries, and which, the European Council adopted as the EU target for 2050.

Parliament calls on the Commission to:

- set interim greenhouse gas emission reduction for 2030 and 2040, including concrete objectives for each sector, together with an ambitious timetable;
- bring forward within the next two years the measures necessary to achieve the 2030 objectives, taking into account particular national capacities and potentials, as well as international progress on climate action;
- present a cost-benefit analysis of meeting the proposed pathway at Member State level, taking into account national circumstances stemming from different technological development, as well as the necessary investments (and the attendant social acceptability) and the existence of a wider range of possible global conditions.

Parliament calls for greater consistency among Community programmes and policies in order to achieve the Roadmap's objectives and ensure that its priorities are fully integrated in the new 2014-2020 Multiannual Financial Framework. It acknowledges that delivering the 20 % energy efficiency target would allow the EU to reduce its internal CO2 emissions by 25 % or more by 2020, and that this reduction would still be on a cost-effective path towards the long-term 2050 target of reducing greenhouse gas emissions by 80-95 % from 1990 levels. It notes that, according to the Roadmap, a less ambitious approach would result in significantly higher costs over the entire period. Members recall, however, that the cost-effectiveness of investments should always be measured in the light of Member State budgets.

The international dimension: Parliament notes that the worldwide development and application of low carbon technologies is increasing rapidly, and that it is essential for Europe's future competitiveness to increase levels of investment in research, development and application in relation to these technologies. It notes also the shift in sustainable scientific and technological innovation away from Europe to other parts of the world. Members emphasise the leading role played by China and India in wind technologies and call for steps to promote the eco-efficient development and production in the EU of these technologies and of the new and innovative technologies that are needed to achieve the ambitious targets for the reduction of greenhouse gas emissions.

Welcoming the outcome of the Durban conference in agreeing a clear timeline for drafting an international post-2012 agreement and the acceptance that large emitters, Parliament calls on the EU to continue to play an active role in international negotiations to finalise an ambitious, comprehensive and legally binding agreement. It reiterates that cumulative emissions are decisive for the climate system. Even with a pathway of 30 % reductions in 2020, 55 % in 2030, 75 % in 2040 and 90 % in 2050, the EU would still be responsible for approximately double its per capita share of the global 2°C compatible carbon budget, and delaying emissions reductions increases the cumulative share significantly.

The Emissions Trading System (ETS): Parliament recognises that the ETS is the principal instrument, although not the only one, for reducing industrial emissions and promoting investment in low carbon technologies. Further improvement of the ETS is necessary, and Members call for the EU ETS to be complemented with a technology- and innovation-based approach in order to secure the significant reductions needed.

They recognise that the ETS is experiencing problems not originally anticipated, and that the accumulating surplus of allowances will depress the incentive to promote low carbon investments for many years to come. This endangers the effectiveness of the ETS as the EU's principal mechanism to reduce emissions in a manner that creates a level playing field for competing technologies. Parliament calls on the Commission to adopt measures to correct the failings of the ETS and to allow it to function as originally envisaged. It makes recommendations on appropriate measures and asks for a report examining the impacts on incentives for investments in low carbon technologies and the risk of carbon leakage.

Parliament also calls on the Commission and the Member States to implement in full the legislation on aviation in the ETS.

Members recall that at least 50 % of auctioning revenues must be reinvested in climate action, and they urge the Commission to monitor the spending of such revenues by Member States, and report on this on an annual basis to Parliament. Member States must make effective use of the auction revenues in order to promote R&D and innovation with a view to achieving long-term reductions in greenhouse gas emissions.

Energy efficiency: Parliament recalls the existing assessments that indicate that reducing energy use by 20 % compared to 2020 projections is not currently on track. It calls for rapid action, greater ambition and stronger political commitment in terms of achieving the 2020 targets and looking beyond 2020, thus attracting appropriate investment. Since energy efficiency policies are key to further reducing carbon emissions, binding targets should not be excluded. Members welcome the priorities set by the proposed Energy Efficiency Directive for increasing energy efficiency in all sectors, and particularly in buildings through the renovation of existing building stock. They call for the mobilisation of new sources of funding at European and national level, including through new financing instruments, highlighting the importance of private investment.

Renewable energy: Parliament underlines the important role of renewable energy, and the urgent need for better solutions as regards storage, increasing energy efficiency and ensuring efficient energy transmission, including appropriate infrastructure measures. It recognises the significant progress achieved by Member States in the development of renewable sources of energy since binding targets were set for 2020, and draws attention to the importance of setting further binding renewable energy targets for 2030. Members stress that meeting the targets set in the national renewable energy action plans is crucial for the achievement of the overall EU targets for 2050, and they consider that the Commission should take measures if national targets are not met.

They also call for a biomass supply policy to encourage sustainable biomass production and use. It insists that meeting the EU's biofuels target must not adversely affect food and feed production or lead to a loss of biodiversity. Accordingly, the Commission is asked to promote adequate protection of the environment in third countries affected by land use change bilaterally and multilaterally in order to take account of the greenhouse gas emissions attributable to changes in land use patterns.

Power generation: Parliament calls on the EU to commit itself to the decarbonisation of the energy sector by 2050. It invites the Member States and the Commission to invest more in the energy infrastructure necessary for the transition to a sustainable economy. Europe should be at the cutting edge in the development of standards and interoperable energy-related Internet technologies and energy-efficient ICT

applications. With regard to interregional connections, Parliament stresses the need to launch an investment plan based notably on the European Energy Infrastructure Package, so as to secure the diversification of energy supply sources. It also calls for the swift integration and uptake of cross-border electricity markets.

Transport: Members endorse the requirement of the Commission Roadmap to a Single European Transport Area to reduce greenhouse gas emissions from transport by 60 % by 2050 compared to 1990 levels in the EU. Furthermore, they call on the Commission to come forward with interim emissions reduction targets for the sector in order to ensure that sufficient action is taken at an early stage.

Parliament calls on the Commission to include maritime transport in its roadmap and, in the absence of an international agreement to reduce emissions from shipping, to propose legislation so that these emissions are included in the Community reduction commitment with the aim of the proposed act entering into force by 2013.

Agriculture: Members call on the Commission to propose specific measures to reduce greenhouse gas emissions and promote efficiency gains from the use of agricultural land and reduce the use of fossil fuel based fertilisers, taking particular account of the role of agriculture as producer of food (rather than fuel).

They also call for a strategy for EU land use, land use change and forestry (LULUCF), and encourage Member States to develop their national policies in order to deliver the mitigation potential of their respective LULUCF sectors.

Financing: Parliament supports the proposals made by the Commission for the Multiannual Financial Framework 2014-2020 to provide dedicated funding to increase investment and promote the development and application of low-carbon technologies. It endorses the intention to mainstream climate-related funding of the total MFF and earmark 20 % of the European Regional Development Fund (ERDF) for renewable energy and energy- efficient investment, while insisting that this must be effectively monitored. It recommends that the Commission should ensure that particular use is made of this funding to assist Member States that have a high potential for reducing emissions below the existing targets but lack the capacity to make the necessary investment.