SUMMARY OF ONLINE SUBMISSIONS: INDUSTRY

The views here represented are those of the submissions to the Commission's online consultation and do not necessarily reflect the opinions of the Commission.

Each bullet pointed entry has been proffered by at least one submission from that subsector of industry; those expressed in bold font reflect commonly expressed views within that subsector. The views expressed are in no particular order and are the author's paraphrasing of the submitter's position. The full documents can be found online at: http://forum.europa.eu.int/Public/irc/env/action_climat/library

Number of submissions	**78**
Energy and electricity industries	19 (including 5 from coal companies, and companies with renewables portfolios)
Chemical industry	10
Business advocacy groups	13 (including 4 from UNICE)
Energy-intensive industries	13 (including cement, glass, steel and paper)
Nuclear industry	3
Transportation sector	7
Insulation/ building industry	7
"Green" industries	6

Summary

Although there was general agreement that the EU should maintain its leadership on climate change policy, this was expressed, almost universally, with caveats: the mitigation effort should be global and the EU should not act unilaterally. Developing countries were invited to take on appropriate differentiated commitments. The scientific validity of the EU's 2°C target was questioned by a number of stakeholders.

The three pillars of sustainable development were quoted in support of the need to have economically sustainable, market orientated, policies. The need for consistency with the Lisbon Agenda was raised by a number of stakeholders. It was widely agreed that emissions reductions should be market-orientated and that the flexibility mechanisms of Kyoto were important or essential. The need for longer timeframes in policies to allow greater surety in long-term planning was a widely-held view. Benchmarking, rather than emissions caps, also had its advocates.

It was expressed that all technologies should be considered and their adoption should come from the bottom up. However, the calls for carbon capture and storage were explicit from the energy industry, but "green" industries expressed doubts about the necessity of using this technology if other measures were put in place. Nuclear was also more enthusiastically promoted by some sectors than others, while some, notably paper, were sequestration enthusiasts. The need for greater coordination and prioritization of research and development efforts was expressed. It was held that all sectors should be included in an emission reduction strategy, and that consumers need to be educated to manage the demand side.
On costs and benefits of adaptation and mitigation, the difficulty in producing figures was noted and the need for more research in this area was argued.

1) Is it important for the EU to continue to show leadership on addressing climate change?

Energy and electricity industries

- Plans need to be sustainable and cost-effective: "technically and economically viable"
- **Need to permanently engage the main GHG emitters, and act to promote global action: EU unilateralism is unacceptable**
- EU unilateralism would cause leakage and therefore no net gains
- A full commitment by the EU to the Lisbon Agenda is an opportunity to show leadership

Chemical Industry

- **EU leadership must involve engagement with the main players, unilateralism is unacceptable**
- EU unilateralism would cause leakage and therefore no net gains

Business advocacy groups

- **EU leadership must involve engagement with the main players, unilateralism is unacceptable**
- EU must act to bring the three pillars of sustainable development into an optimized balance
- EU action must be proportionate to its emissions
- Climate change policy should be seen as part of future sustainable development policy
- The global market means that producers are unable to pass on extra costs without a negative effect on their cost-competitiveness
- **EU unilateralism would cause leakage and therefore no net gains**

Energy-intensive industries

- **It is important that the EU continue to show leadership on climate change**
- **A global response is essential, EU unilateralism is unacceptable**
- The EU must combine efficiency, equity and competitiveness in climate policies
- Each pillar of sustainable development should be taken into account by policies
- A full commitment by the EU to the Lisbon Agenda is an opportunity to show leadership
- The EU should not put any further quantitative targets in place until other major emitters are on board
- EU unilateralism would cause leakage and therefore no net gains
- If the threat is real, a broad and innovative mix of long-term realistic, internationally well-balanced and cost-effective measures need to contribute to climate policy

Nuclear industry

- **The EU must continue its leadership role and promote global action**
- The EU must not act unilaterally

Transportation sector

- **The EU must continue its leadership role and promote global action**
- The EU must not act unilaterally
- The EU's leadership is top be questioned as other major economies have not followed suit
- A progressive policy may lead to medium and long term competitive advantages

Insulation/ Building industry

- The EU must continue its leadership role

"Green" industries

- Strong leadership needs to be reinforced with effective action
- The EU needs to act to help improve effectiveness of international, national and local legislative frameworks in support to progressive policies
- Global participation is essential: EU unilateralism is unacceptable
- Climate policies should not promote protectionism

---

2) On the basis of the EU's 2°C long-term objective, what objectives should the EU set for global and EU climate change policy (including targets, timeframes and pathways for emission reductions)?

Energy and electricity industries

- All GHGs and all emitters should be covered by the future regime
- UNFCCC should continue to be the international forum for climate discussion and action
- Mechanism to avoid C leakage should be put in place
- Energy efficiency measures should be prioritized
- A portfolio of measures should be developed with time horizons applied according to circumstances
- An adaptation policy should be put in place
- **Greater R&D is needed**
- **A stable and reliable framework is required on energy, tax and environmental at EU and national levels to allow long-term planning, at least on the 20-30 timescale**
- **Longer term targets are also important for planning**
- **2°C target scientifically questionable and subject to many uncertainties**
- A regime that aims at GHG reductions through technology development and use would be more appropriate than targets and timetables
- Only technology innovations will address climate change in the long term

- Targets should be in line with technological means of delivery
- Any policies should be cost-effective and competitive
- Caps should be replaced with efficiency-related measures

Chemical Industry

- Agreement for global participation must be achieved before targets are set
- More R&D into climate change is needed before large investments are made in mitigation
- The future regime should apply to all GHG and all emitters
- Social, economic and environmental implications of any policy need to be fully evaluated before new targets are suggested
- Industry needs a stable, consistent and coherent framework for long term planning
- Industries are already highly efficient in energy use and so without technology there is little potential for further efficiency improvements
- Self commitments of industry or other groups better fit economic and social needs
- Promotion of energy efficiency is crucial

Business advocacy groups

- Social, economic and environmental implications of any policy need to be fully evaluated before new targets are suggested
- **EU climate change policy needs to be made in the context of the Lisbon Agenda**
- The EU should make its market more attractive to the deployment of low-carbon technologies
- 2°C target scientifically questionable and subject to many uncertainties
- Policies should promote technological solutions
- Sectoral targets across countries can help to remove market distortions
- Emissions caps have generated distrust among Annex 1 countries, thus action needs to be reframed to facilitate cooperation

Energy-intensive industries

- All climate policies should aim to improve efficiency and increase business growth
- Ex-post allocations should be used to reconcile caps with unexpected growth; these should be based on benchmarks
- Sectors not presently covered by the ETD, such as transportation and agriculture, need to be included, but their participation needs to be tailored to their individual circumstances
- Any climate policy must ensure a fair competitive background with homogeneous market conditions
- Policies must be technologically feasible
- Agreement for global participation must be achieved before targets are set
- **2°C target scientifically questionable and subject to many uncertainties**

Nuclear industry

- Policy timeframes need to reflect timeframes of technology change ie 25-40 year timescales

- Greater international cooperation is needed for R&D efforts

Transportation sector

- Targets should be simple, globally applicable and build in incentives for developing countries to adapt and/ or develop cleaner energy
- Different timeframes should be considered for developing countries
- **Policies must be practicable and realistic**
- **Social, economic and environmental implications of any policy need to be fully evaluated**
- **Policies should not harm EU competitiveness**
- A better understanding of 'business as usual' should be promoted
- There should be concrete targets
- Aviation and shipping need to be included in targets for the transport sector as a whole

Insulation/ Building industry

- Targets are should be maintained
- Each Member State should have a target and within that target, each sector has its own target
- Back planning should be applied for targets to be achieved
- The building industry should be a priority for GHG mitigation action

"Green" industries

- Policies must take into account costs and benefits of climate action
- Policies must be economically efficient
- Contraction and Convergence should be applied in the next generation of policy approaches
- The EU should implement policies that will enable it to be carbon neutral by 2050
- Measures need to be diverse: economically, ecologically and socially
- **A stable and reliable policy framework at EU and national levels to allow long-term planning**
- More R&D is required for tracking carbon flows in forestry sinks
- Energy efficiency measures should be prioritized
- Agricultural emissions need to be better addressed

---

3) What type and level of participation should the future climate change regime seek from developed and developing countries, what should be the timeframe for such participation and what be should the contribution from the EU and other countries?

Energy and electricity industries

- **Priority should be given to the participation of major emitters/ all must be included**

- **Developing countries need to make commitments, case by case depending on their economic circumstances**
- Emission reduction goals need to be based on sound scientific and economic analyses
- **Emissions intensity should be a valid measure (per capita/ GDP etc)**
- Emissions caps are unlikely to gain global participation
- The US and Australia need to sign up with targets as soon as possible
- **Flexibility mechanisms are essential**
- Technology transfer should be used to involve developing countries
- Coal is readily available and can be used "in an ecologically friendly way"
- Non-compliance needs to be rigorously addressed, perhaps in conjunction with the WTO
- The experience of the UNFCCC bodies should be used as the basis for future action
- Climate change needs to be linked to priority issues for developing countries, including poverty alleviation and access to energy

Chemical Industry

- **A global agreement is essential**
- Policy must be made in the context of other priority policy areas, including poverty alleviation and access to energy
- Stakeholders must be thoroughly consulted

Business advocacy groups

- **A global agreement is essential**
- The model should be flexible to accommodate each country's national interests and needs
- Developing countries need to be differentiated on the basis of their economic development and GHG emissions
- **Developing countries need to make commitments, case by case depending on their economic circumstances**
- The new regime should be attractive to join, to encourage maximal participation

Energy-intensive industries

- All industrial sectors must participate
- **A global agreement is essential**
- A "cap and trade" system, especially regionally, is not appropriate: an absolute cap should be replaced by a specific target
- Developing countries need to make commitments, case by case depending on their economic circumstances
- Developing and developed countries would ideally have equal targets
- Any regime should contain incentives and disincentives, primarily based on strengthening of R&D, energy efficiency benchmarks, technology transfer; and shift from absolute to specific/ relative targets

Nuclear industry

- The EU cannot solve climate change by itself: North/South dialog is needed and international collaboration is required

- New agreement should consider relative targets with a growth margin which allows emissions within a determined range
- Developed countries should take the lead in action, but developing countries need to stabilize emissions by using alternatives to fossil fuels

Transportation sector

- **A global agreement is essential**
- **The response should be equitable and involve common but differentiated responsibilities**
- **Developing countries need to follow a different transportation trajectory to that of developed countries**

Insulation/ Building industry

- Best practises need to be established as benchmarks for all EU countries

"Green" industries

- The common but differentiated responsibilities approach is important. Developing countries can participate through the CDM
- Developing countries must become engaged with the process and act to reduce their emissions

---

4) Which technical solutions should be allowed or promoted (eg renewable energy, nuclear energy, C sequestration, C capture and storage)?

Energy and electricity industries

- **All technological solutions must be available**
- **Policies should be market-orientated**
- **CCS should be prioritized** eg through ENCAP, CASTOR and CO2SINK
- Sequestration should also play a role
- Realistic assessments are needed for the role of renewables and gas, although these will play a role. For renewables, this will be in the long-term.
- Clean coal technologies should be promoted
- Efficiency measures should be promoted
- The nuclear option should be reviewed
- Demand side needs to be managed
- Non-energy sectors need to make technological efficiency gains
- Countries should be free to choose from a portfolio of mitigation options
- more money is needed for R&D, and efforts should be coordinated at the international level to maximise research efficiency

Chemical Industry

- All countries and actors must remain free to adopt solutions that best fit their needs
- Technological decisions should be based on sound scientific evidence and cost benefit analyses
- There should be increased R&D funding on fossil fuel alternatives. This will require increased funding and internal coordination
- Policies must not threaten the liberalization of the EU energy market
- **All energy technologies should be allowed to play a role**
- Policies need to encourage dissemination of clean technologies
- Policies on mobile air conditioning may undermine confidence in fluorinated gases, particularly in developing countries, which could lead to increased use of ODSs
- EU policy should tackle all GHG emitting sectors, and not focus on single gases, such as fluorinated gases
- **Nuclear fusion should be considered as the technology matures**
- Combined heat and power improves efficiencies and should be included
- No dams should be built that do not have hydroelectric capacity
- The residence sector can benefit from uptake of solar thermal technologies
- Emission prevention should be emphasized heavily over end-of-pipe technologies
- Nuclear should not be an option because of risks of nuclear proliferation, waste, accidents and the limited raw materials

Business advocacy groups

- Efficiency measures should be promoted
- All players and governments should be free to choose the mitigation technologies that best meet their needs
- Mitigation must be achieved through market mechanisms
- **All technologies should be considered**
- No particular technology should be subsidized
- Mobility management can reduce emissions from the transport sector eg through transport telematics

Energy-intensive industries

- A bottom-up approach for technological uptake is important
- **The nuclear option should be reviewed**
- **There should be better coordination of R&D efforts**
- Long life products will reduce emissions, particularly from those constructed using high energy input materials
- EU-wide pooling would allow companies that possess different installations in several member states to trade allowances under Directive 2003/87/EC
- Co-incineration should be exempt from emissions restrictions and trading as this is an important waste disposal mechanism
- **All technological solutions must be available**

- **Sequestration should be considered**
- Energy efficiency is very important
- Glass products are important technological solutions eg double/ triple glazing, insulation, solar cells etc
- A systems approach will maximise efficiency measures eg improved heating or cooling systems are best used in well-insulated buildings
- Security of energy supply needs to be a consideration
- Existing policy frameworks do not take technologies into sufficient account: renewable energy sources are favored so that wind turbines benefits, but not fuel cells

Nuclear industry

- Technology changes take time and should be made when renewing equipment or expanding capacity
- **Inclusion of nuclear energy is vital for a realistic emission reduction target**
- Combined heat and power improves efficiencies and should be included
- Electric cars, biofuels and hybrid cars can improve transport sector emissions
- The residence sector can benefit from uptake of solar thermal and geothermal heating technologies
- Renewables sequestration and CCS have roles, but are unproven and cannot replace all fossil fuel capacity in the required timeframes
- Best available technologies need to be implemented worldwide, using flexibility mechanisms
- **All technological solutions must be available**

Transportation sector

- **All technologies should be considered**
- There should be more attention paid to mechanisms for technology transfer
- Renewables and cogeneration have important roles
- **Sequestration is an option, but needs further research**
- Public transport should be the backbone of transportation needs

Insulation/ Building industry

- Energy use should be reduced at source: there is a need for more demand management
- Renewables and energy conservation have important roles

"Green" industries

- The development of renewables, such as PVs, will require government support
- A hierarchy of options should be developed, emphasizing energy efficiency and renewables
- External carbon costs should be internalized
- Sequestration has a role
- CCS may not be necessary if other measures are put in place

- Implementation of the KP should encourage long-term management of forest carbon stocks, through sustainable forest management
- Sinks are an important part of the response to climate change
- Nuclear energy should remain part of the mix

---

5) Should the future global climate regime maintain the key elements of the Kyoto Protocol, including the Kyoto Mechanisms (JI, CDM and emissions trading) and what other elements should such a regime contain?

Energy and electricity industries

- **Flexibility is important**
- Transaction fees and times of approval of CDM and JI should be reduced. Greater transparency and simplicity is required.
- Newly developed countries need to be helped to avoid GHG intensive behaviours
- **Existing mechanisms need to prove themselves before any new elements are added**
- The future of the EU-ETS is tied to Kyoto and thus is subject to uncertainty post-2012
- JI and the CDM need to be subject to unambiguous requirements
- The CDM is too bureaucratic to effectively include developing countries
- **All sectors should be included**

Chemical Industry

- Triptych approach should be used, based on benchmarking, with an allocation of targets to the industry worldwide
- **Flexibility mechanisms are essential**
- Trading units need to be fully fungible
- Flexibility mechanisms need to be simplified
- Emissions intensity objectives should be used to promote energy efficiency
- Trading systems will need to be able to be linkable
- **Emissions targets at company level are an obstacle to business growth**

Business advocacy groups

- **Flexibility mechanisms are essential**
- The market needs to encourage low emissions development for all.
- There is a need for low transaction costs and efficient administration in trading, the CDM and JI
- The future regime should be negotiated under the UNFCCC architecture

- The new regime should be based on the 'bottom up' approach
- CDM is a good method for the transfer of technology to developing countries
- Adaptation measures will need to be paramount
- The existing regime needs to be monitored to assess the real costs of the CDM, JI and emissions trading
- The 50% limit on the flexibility mechanisms should be abolished
- Wooden materials should be counted as sinks

Energy-intensive industries

- Market instruments should be used only if they can be shown to deliver the environmental objective at least cost and without damaging competitiveness
- The EU ETS gave insufficient recognition to policies and measures already in place. Future actions should avoid this
- **Benchmarking based on performance standards should be considered in future trading regimes**
- Domestic project activities should be included among the flexible mechanisms
- The EU ETS is an important mechanism for fighting climate change
- The EU ETS needs to be administratively simplified
- The EU ETS is not cost effective and will increase electricity costs without environmental benefits
- The EU ETS linking directive to link JI and the CDM the EU ETS is welcomed
- There is a need for low transaction costs and efficient administration to encourage SMEs, as well as large companies, to participate
- **Flexibility mechanisms are useful tools**
- Incentive based systems may be more internationally acceptable than caps and need to be elaborated
- Flexibility mechanisms need to be simplified and emissions should be tradable on an unrestricted market
- **Forest products, including paper, should be recognized as a significant carbon pool**
- **Industry can exploit combined heat and power efficiently and this should be encouraged**

Nuclear industry

- The flexibility mechanisms need to be used as much as possible
- Flexibility mechanisms need to be simplified and emissions should be tradable on an unrestricted market
- More projects are needed
- Flexibility mechanisms should include nuclear
- Allowances of the EU ETS will need to be reduced after the first period of trading to reduce GHG emissions

Transportation sector

- JI and the CDM need to be simplified administratively
- It is too early to comment on the efficacy of the CDM and JI

- Technology transfer should be the focus of the flexibility mechanisms
- Coherent worldwide standards on the project based mechanisms and CER/ERU accounting need to be implemented

Insulation/ Building industry

- Demand side management should take precedence over Kyoto mechanisms

"Green" industries

- Proper implementation of the mechanisms could have an inflationist effect on conventional energies and depress renewable market penetration
- Trading systems will need to be able to be linkable, but not necessarily identical, as policy circumstances change
- **Flexibility mechanisms are an important component of reacting to the climate change challenge**
- International trading will need to be transparent and be move to greater consistency
- Trading units need to be fully fungible
- Forest products should be recognized as a significant carbon pool
- JI and the CDM should not distort timber markets

---

6) What are the costs of taking future action on climate change, including competitiveness impacts, and how can/ should impacts be addressed?

Energy and electricity industries

- A global scheme will involve less cost
- Integrating reductions measures in renewal and expansion must be more effective than scrapping functioning assets
- Rising energy prices is a risk
- Loss of competitiveness is also a risk
- Climate change elements should be opportunities for business growth: incentives should be considered to promote lower carbon goods and services
- Good practices, based on experience, should be provided

Chemical Industry

- **Loss of competitiveness is a risk without global participation**
- The Kyoto policies should be subject to full analysis before future commitments are made
- A level playing field for all actors is essential

Business advocacy groups

- **Loss of competitiveness is a risk without global participation**

- Cost efficiency is key
- Meaningful cost-benefit analyses based on sound science should be carried out as a basis for any climate change strategy
- A coordinated EU policy is better than 25 separate reactions
- More research is needed on economic impacts of policies

Energy-intensive industries

- **Loss of competitiveness is a risk without global participation**
- Energy intensive industries are subject to harsh international competition: since prices are set globally, carbon costs cannot be passed onto consumers
- Energy prices are already higher in Europe than in many competing countries
- CO_2 emissions per unit of sales are high, so energy intensive industries would be particularly penalized by any carbon pricing scheme
- **Irreducible emissions, such as the constant amount of CO_2 removed from lime, should be exempted from Kyoto restrictions**
- The EU ETS should have a safeguard clause related to unexpected situations
- The EU ETS needs to have a learning by doing phase before additional commitments are framed
- The EU ETS should incorporate a flexible banking regime
- Good impacts assessments should underlie all legislation
- Policymakers need to maintain a dialog with stakeholders for designing and implementing cost-effective strategies
- A coordinated EU policy is better than 25 separate reactions

Transportation sector

- The EU ETS will have competitiveness impacts: a global system removes these market imperfections
- An integrated approach should be pursued to draw in a range of stakeholders to any abatements required of the automotive sector, including fuel supplies, traffic management etc
- Transport externalities should be internalized: the polluter pays principle should apply

Nuclear industry

- Costs will correspond to R&D support and investments for industrialization changes
- Costs should be supported by industry and their consumers

Insulation/ Building industry

- Governments have a responsibility to assist owners of dwellings near flood plains to provide publicly funded infrastructure
- Governments need to be strategic planning their planning decisions
- Insurance against flooding should be an integral part of buildings insurance
- Cross border cooperation agreements should be reached with the aim of minimizing flood damage

7) What are the benefits of taking further action on climate change, including avoided damages, competitiveness impacts and ancillary benefits, and how can/ should these be encouraged or optimised?

Energy and electricity industries

- The inequalities accepted in the KP should be replaced with technological and market criteria acceptable globally.
- Quantification of effects is difficult and subject to uncertainties
- **Consumers should be better educated about the impacts of their decisions**
- Energy efficiency is positive in itself
- Adaptation needs to be considered in parallel with mitigation
- Early action is to be recommended
- Benefits are more effectively addressed through directly targeted policies eg Clean Air for Europe (CAFE)

Chemical Industry

- Consumer should be better educated about the impacts of their decisions
- Climate policy should be formulated with regard to policy formation on economic growth and development
- **Transfer of energy efficient technologies to developing countries is essential**
- An impact assessment is essential prior to further discussion of post-2012 targets
- Positive contributions should be recognized and financially rewarded

Business advocacy groups

- Consumers and communities should be better educated about the impacts of their decisions
- Significant effects will be seen through wider, rather than further, action
- **Further research in this area should be a priority**
- Direct climate benefits are difficult to quantify at regional, national or local levels, but may be assessed at a global scale
- Ancillary benefits are hard to assess globally, but effects such as health effects, ecosystem change, sectoral economic effects and social effects are better assessed on a finer scale. Impacts will depend on the policies in place

Energy-intensive industries

- **Quantification of effects is difficult and subject to uncertainties**
- Climate change is a global problem. The KP has been enacted in an unbalanced way and should be rethought
- Measures need to be as effective, cost-efficient and equal as possible: a global commitment with flexibility elements is key

Nuclear industry

- Costs are difficult to assess
- Benefits include energy savings to increase the lifetime of world resources, **increase in security of energy supply** and new technologies

- Costs likely to be lower in mitigation than adaptation

Transportation sector

- Policy instruments can steer technological development but to a limited extent: technological solutions need to be found that are economically and ecologically competitive

Insulation/ Building industry

- Thermal insulation retrofitting can create jobs and reduces energy use
- Insulation standards for buildings need to be improved
- Double glazing needs to become used more widely
- An upgrade of all space heating units can save significant quantities of energy
- Energy efficiency measures are highly cost-effective and use proven technology

"Green" industries

- Everyone who causes emissions needs to participate in their reduction
- The polluter pays principle should guide policy at the local, national and global levels
- Voluntary action that exceeds current regulatory requirements should be rewarded by government
- Offsets provide a pricing signal to shift from compensation (which costs money) to reductions at source (which saves money)

Other Comments

Energy and electricity industries

- **coal is important for security of supply**
- carbon costs should be internalized in electricity prices
- ruling out or restricting certain energy sources reduces energy diversification , and increases risks of shocks in any one source sector

Energy-intensive industries

- Climate change policy should not drive energy intensive industries from the EU as this would both lead to no net emission reductions, and an increase in transportation emissions
- Adaptation efforts will be facilitated by cement and its downstream products eg through hydraulic works, flood prevention structures etc
- **There should not be any "domino effect" or "cumulative burdens" in the supply chain**
- Research needs to be done into rates and extents of the recarbonation of lime, for carbon capture purposes

Nuclear industry

- Technology transfer should be encouraged by elimination of trade barriers and enforcement of intellectual property rights

Transportation Sector

- Aviations contrail and cirrus impacts should be directly, separately and fully integrated into the EU ETS
- For the 2008-2012 phase of the EU ETS, aviation should be linked to the EU ETS for both CO_2 and NO_x
- Aviation's environmental impacts should not be tackled through reducing demand by raising costs
- A shift from road transportation to public transportation is essential

"Green" industries

- Exchange rate versatility between currency areas causes unforeseeable costs and compensation mechanisms are required to allow the penetration of renewable technologies worldwide
- Forest products should replace more energy intensive materials
- Further research is required to improve climate change models
- Transportation systems need to be made more sustainable through better trains and lower emission cars