

GREEN PAPER "Energy"

IDENTIFICATION

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| Your profile | I'm an organisation/stakeholder |
| I'M AN ORGANISATION/STAKEHOLDER | |
| Organisation name | European Hydrogen Association EHA |
| Contact name | Marieke Reijalt |
| E-mail | reijalt@h2euro.org |
| Type of organisation | Not-for-profit association |
| Energy activity | Energy production Industry Energy policy & research Energy transmission/distribution Households Transport |
| In wich country/countries is your business or organisation based ? | BE - Belgium |

QUESTIONS:

A. Competitiveness and the internal energy market

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| 1. In order to achieve the goal of a genuine single market, what new measures should be taken at EU and MS level? | Harmonised grid access conditions (European Grid code) Create a European Energy Regulator OTHER |
| Which other new measures? A European Energy Regulator should ensure a level playing field for the connection and installation of new energy technologies as hydrogen and fuel cell applications in all EU Member States. | |
| 2. In order to develop a single European grid, what should a "European Grid Code" contain? | Security rules Balancing rules Capacity allocation rules (congestion management) Transparency rules OTHER |
| Which other rules for "European Grid Code"? Hydrogen produced by excess electricity used as an electricity storage solution could connect excess renewable energy to clean urban transport applications or could be used to power fuel cells for back up power. Therefore a European Grid Code should contain references to the use of innovative electricity storage. as hydrogen, to balance the grid. | |
| 3. Apart from ensuring a properly functioning market, how can the EU stimulate investments in infrastructure and generation capacity? | Accelerate authorisation procedures in the Member States Promote more cooperation between Member States Increasing transparency in the market Increase the share of EU financial support OTHER |
| Which other incentives? Widespread information campaign addressing the financial and insurance community that includes references to cost and "well-to-application" impact, long term strategy and consequences for households and industry. | |
| 4. How can it be ensured that all Europeans | Establish integrated and competitive electricity and gas markets |

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| enjoy access to energy at reasonable prices? | Focus on cost effective savings of energy Diversify the energy mix Use more renewable energies Promote efficient energy services Decrease dependency on imported fuels OTHER |
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| Which other possibility? | 1. Support widespread local information campaigns of technical and economic aspects of clean energy technologies; 2 Support regional and local governments to create dedicated departments to develop effective strategies for the use of clean energy and transport applications. |
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| 5. How can the internal energy market contribute to maintaining employment levels? | By attracting investments in the energy sector OTHER |
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| Which other ways to contribute? | By actively stimulating the deployment of innovative energy and transport solutions like hydrogen and fuel cell systems. |
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| Any other comments on the chapter "Competitiveness and the internal energy market"? | |
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B. Solidarity

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| 6. What can the Community do to prevent energy supply crises? | Protect energy infrastructure against natural catastrophes and terrorism Develop smart electricity networks, demand management and distributed energy generation, bearing in mind their potential to help at times of sudden shortage Cooperate on network security among transmission system operators, including the development of common security and reliability standards Establish an observatory mechanism to identify likely shortfalls in supply and infrastructure at an early stage Enhance dialogue with major energy suppliers/consumers OTHER |
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| Which other measures? | Support the development of instruments that assist local governments to identify local sustainable energy mix for stationary and transport applications and the use of innovative energy technologies that are less grid dependent and could stimulate local economy; hydrogen as an energy vector could bridge the use of conventional fuels to increased use of sustainable energy applications using local expertise to facilitate this transition.. |
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| 7. Which measures need to be taken at Community level to manage energy supply crises if they do occur? | A coordinated mechanism for emergency demand restraint A coordinated mechanism to provide early notice and monitoring and to enhance response capabilities OTHER |
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| Which other measures? | 1. Support of development of innovative electricity storage solutions for emergency situations by using excess production of electricity: hydrogen can be produced through the electrolysis of water using excess electricity. The hydrogen could be used to power emergency vehicles and other critical transport operations. 2. Rapid deployment of proven new energy technologies for critical applications; fuel cells as back up power systems; |
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| Any other comments on the chapter "Solidarity"? | |
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C. Diversification of the energy mix

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| 8. What should the EU do to ensure that Europe, taken as a whole, promotes the diversification of energy supplies? | Use more indigenous energy sources Use more renewable energy sources Be leader in energy efficiency OTHER |
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| Which other actions? |
| 1. Support reinforcement of dedicated personnel at regional and local government level to assess and promote the use of local, sustainable energy solutions including hydrogen and fuel cells; 2. Actively stimulate sustainable energy education including innovative energy technologies in schools and universities; 3. Support large projects that include innovative technologies as hydrogen and fuel cells to create energy mix models to be used at national and local level. |
| Any other comments on the chapter "Diversification of the energy mix"? |

D. Sustainable development

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| 9. How can a common European energy strategy best address climate change, balancing the objectives of environmental protection, competitiveness and security of supply? | Focus on getting the widest possible international actions on climate Keep Europe at the forefront of energy technology and the policies needed to encourage change Consolidate Europe's position at the forefront of progress on efficiency and renewables Consolidate the Emissions Trading Scheme Do cost-benefit analyses of all new proposals OTHER |
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| Which other actions? |
| Cost benefit analysis that include the use of innovative technologies as hydrogen and fuel cells should be the basis of EU and national strategy. |

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| 10. What is important for the further development of clean and renewable energy sources in the EU? | Reinforce Member State investments Introduce incentives at Community level Define long term targets and an action plan to promote renewable energy Further develop the EU Emissions Trading Scheme Increase R&D efforts within a Strategic European Energy Technology Plan OTHER |
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| Which other actions? |
| 1. Execute independent confrontation of the technical and economic aspects of different clean energy and transport solutions; hydrogen as an electricity storage medium could accelerate the transition to a clean and secure energy future by linking excess conventionally produced electricity to clean urban transport. Hydrogen produced by natural gas used in a fuel cell vehicle or a stationary fuel cell is more efficient than burning natural gas directly in a conventional engine or turbine. |

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| Any other comments on the chapter "Sustainable development"? |
| 2. Principle of co-modality, as mentioned in the Mid-term review of the European Commission's 2001 Transport White Paper: the efficient use of different clean energy and transport solutions on their own and in combination, will result in an optimal and sustainable utilisation of resources. This approach is fully in line with the conclusions of the European Council of 16/06/2006 and the renewed Sustainable Development strategy, in particular its chapter on transport and it matches the suggestions in the Review of the White Paper. |

E. Innovation and technology

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| 11. What action should be taken at both Community and national level to ensure that Europe remains a world leader in energy technologies? | Build upon the proposed European Institute of Technology Establish a Strategic European Energy Technology Plan Consider ways to finance a more strategic approach to energy research and innovation programmes and budget Mobilise high-level stakeholders and decision-makers to develop an EU vision for the transformation of the energy system Develop leading markets for innovation OTHER |
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| Which other actions? |
| 1. Support active deployment of proven new energy technology as hydrogen for transport and back up power applications; 2. Develop instruments that facilitate educated choices of clean energy and transport solutions at involving local industry. |

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| 12. Which topics/technologies should an EU energy technology strategy focus on developing? | CO ₂ Capture and Sequestration (CCS) Enhanced Oil Recovery Clean Coal (non-CCS) Second generation biomass Tidal and wave Solar Wind Fuel cells and hydrogen Smart electricity networks OTHER |
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Which other topics/technologies?

A comprehensive European Energy Technology Strategy should include a regular independent study of the optimal energy mix of different energy and transport solutions for different national and local situations. It should also include preliminary cost and benefit analysis.

Any other comments on the chapter "Innovation and technology"?

Introduce the principle of co-modality for different types of clean energy systems, i.e. the efficient use of different clean energy technologies for transport and stationary applications on their own and in combination, that will result in an optimal and sustainable utilisation of resources.

F. External policy

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| 13. What should be the priority of a common external policy on energy? | Develop new partnerships with neighbouring countries of the EU Develop new partnership with Russia Develop new partnerships with important producer countries Develop new partnerships with main consumer nations of the world Incorporate climate change, energy efficiency and renewable energy sources into EU external relations OTHER |
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Which other actions?

Stimulate extensive collaboration on the deployment of new energy technologies as hydrogen and fuel cells, as these technologies do not carry the political burden of agreements on conventional energy and transport applications. The shift to clean energy systems in which the use of hydrogen will play an integral part could accelerate the uptake of an European Energy Strategy based on common goals with regards to security, competitiveness and environment

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| 14. How can the Community and Member States promote diversity of supply, especially on gas? | By introducing Community rules, such as that Member States should be able to rely on at least three different supply sources for each energy which they import (oil, gas, coal) OTHER |
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Which other measures?

By actively promoting the use of efficient gas consuming power systems as fuel cells.

Any other comments on the chapter "External policy"?

G. European energy policy

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| 15. Do you agree that there is a need to develop a new, common European strategy for energy? | Yes |
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| 16. What should be the core principles of European energy policy? | Sustainability Competitiveness Security of supply OTHER |
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Which other principles?

Principle of co-modality; creation of a level playing field for all innovative and sustainable energy and transport applications.

Sustainability

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| 17. What should be the core principles of individual energy policy initiatives at Member State and regional levels? | Competitiveness Security of supply |
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| 18. Do you think that greater attention to energy at both EU and Member State level can substantially help to achieve the goals of the strategy for growth and jobs (Lisbon process)? | Yes |
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| Any other comments on the chapter "European energy policy"? |
| <p>The European Hydrogen Association, EHA, welcomes the Green Paper on a European Strategy for Sustainable, Competitive and Secure Energy as an important document to stimulate sustainable energy choices on EU, national and local level. Hydrogen, as a new energy vector that can be produced by different conventional and renewable energy sources and that can be used to link excess renewable energy to local clean transport solutions, will contribute significantly to the principles of the EU energy policy as outlined in the Green Paper. In order to achieve their full potential Hydrogen and Fuel Cell Technologies need to become a visible and active part of all EU's Energy policy actions. Current support for research and development of Hydrogen and Fuel Cell systems needs to be complemented with a visible presence of Hydrogen and Fuel Cell technologies in the EU bodies and actions that will define the EU Energy policy in the coming years. A technical and economical confrontation of all sustainable energy options, the principle of co-modality, including the use of Hydrogen and Fuel Cells, has to be made to identify the right energy mix for each EU Member State. Therefore the EHA urges the Commission to include Hydrogen and Fuel Cell technologies in the proposed European Energy Supply Observatory, the Action Plan on Energy Efficiency, the Road Map for Renewable Energy, the Strategic Energy Technology Plan and in the common regulatory frame work and structures for the EU's internal gas and electricity markets. Without an active and visible contribution of Hydrogen and Fuel Cell experts in EU Energy policy structures, Europe will loose its role of technological and market leader in important segments of the fast approaching Hydrogen and Fuel Cell market.</p> |

Thank you for your co-operation

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| How did you perceive this questionnaire? | Expectations met |
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| Comments |
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Meta Informations

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