European Group on Ethics: “An ethical framework for assessing research, production and use of energy”

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social accountability and computing
What is the European Group on Ethics?

• High-level group of lawyers, ethicists and philosophers
• Report to the President of the European Commission (President Barroso)
• On specific topics (e.g., doping; health informatics; ICT; nano-technology; most recently, energy mix)
• Works through literature search, series of expert group meetings, own internal meetings.
Motivations behind the Opinion on energy mix

• June 28 2011 - Council reached a political agreement on a Commission proposal for a nuclear research and training programme, 2012-2013

• some Member States - broad discourse on ethical issues and sustainable energy mix in Europe

• On December 19, 2011, the President of the European Commission requested the EGE to contribute to the debate
The brief - ethics

• Address ethical issues arising from energy use (mix, future consequences, precautionary principle, intergenerational justice)

• Identify the ethical criteria on which decisions are made re research on sources of energy

• Propose an integrated ethics framework

• Identify ethically relevant areas of energy research
Having regard to ...

- 70+ different legal or regulatory “instruments”

- Directives, Commission Decisions, Regulations and reports

- Atomic energy, Euratom, safety, security ...

Content

- Scope
- Having regard to (list of relevant legal, regulatory instruments and other high-level reports)
- Scientific aspects
- Regulatory and policy frameworks for energy and environment
- Ethics
- Recommendations (6)
- Annexes: Expenditure and statistics
Different forms of energy explored

- Biomass
- Coal
- Geo-thermal
- Natural gas
- Nuclear
- Petroleum
- Renewable and non-renewable
- Shale gas/shale oil (extracted through “fracking”)
- Solar energy
- Thermal
- Water

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Different forms of energy mix

Energy mix 2010 - 2030 (Gas Advocacy Forum scenario)

- **Nuclear**: 2010 - 28%, Lower price - 26%, Higher price - 37%
- **Gas**: 2010 - 26%, Lower price - 19%, Higher price - 33%
- **Coal**: 2010 - 24%, Lower price - 9%, Higher price - 28%
- **RES**: 2010 - 20%, Lower price - 28%, Higher price - 30%
- **Biomass**: 2010 - 2%, Lower price - 7%

*Other renewable energy*

Source: Statoil
Undergoing complex life cycles – transformation to different sources of energy

- Efficiency
- Electricity production
- Energy production
- Residues
- Transportation
- The grid/energy grids
The following **fundamental values** play a key role in the debate on energy:

1. **Respect for human dignity and human rights**, among them the right to health care and a safe environment, the right to access to energy as an important condition for basic human flourishing, the right to active democratic participation in the decision-making processes regarding energy policies and the right to transparency and information;

2. **Justice** including distributive, social, political, and intergenerational justice;

3. **Solidarity** identifies the shared responsibility and concern for EU and global welfare, which calls for cooperation in order to achieve the goal of securing the well-being of present and future generations.
“It is important to address the EU energy policy in the light of the Lisbon Treaty’s Energy Policy objectives: (1) ensuring the functioning of the energy market, (2) ensuring energy security, (3) promoting energy efficiency and energy saving, and the development of new and renewable forms of energy, and (4) promoting the interconnection of energy networks.” (p73)
Ethics – 4: Facing today’s challenges

• affordable **access** to all users
• **climate change** and the necessity to enable the transition to renewable energy
• increasing **dependence on imports**
• **security** of supply
• **strain** on energy resources
• the **equilibrium** between the principle of subsidiarity and autonomy of Member States
• the issue of **diversity** of energy mix
• the need of a **coherent external energy policy**
• **solidarity** among Member States and
• funding of research that encourages **innovation in all areas of energy technology**, and that **ensures the competitiveness of the European economy**.
Ethical pillars supported by a fifth

- The group spells out the four ethical criteria or ‘pillars’ of ethical analysis, which need to be integrated in energy policy strategies:
  - the right to access to energy,
  - energy security,
  - energy sustainability, and
  - energy safety

- justice as a horizontal principle.
Recommendations

Six recommendations:

• Access to energy
• Safety and impact assessment
• Security of energy supply
• Sustainability
• Research
• Democratic elaboration.
The EGE recommends that the European Union implements policies to:

• 1. **Reduce emissions of carbon dioxide and other gases** producing green-house effects, in the production of energy, as stated in Energy 2050 road map.

• 2. **Favour the development and use of low carbon technologies** with special attention to renewables, for example by fiscal and other relevant measures.
3. Every effort is made to improve energy efficiency and to reduce energy waste. Particular attention should be paid to the following implementing measures to achieve this:

a) establish smart grids

b) encourage incentives and establish normative requirements to reduce and distribute energy production/uses in different fields

c) Promote actions to promote availability of renewable technologies to vulnerable groups of society
Recommends (3) ...

4. **Enhance the awareness of citizens (starting from an early age)** to adopt new attitudes and lifestyles for responsible uses of energy by promoting and financing educational projects and awareness raising initiatives (e.g. promoting sustainability in schools)

5. **Evaluate the different Member States strategies on a regular basis**, particularly in light of the policies to use ‘conventional’, low-carbon and ‘renewable’ energy sources.
Recommendation no.6: Democratic deliberation and responsibility for future generations

• Enhance the **awareness of citizens** (starting from an **early age**) to adopt new attitudes and lifestyles for responsible uses of energy by promoting and financing educational projects and awareness raising initiatives (e.g. promoting sustainability in schools)

• **Evaluate the different Member States strategies on a regular basis**, particularly in light of the policies to use ‘conventional’, low-carbon and ‘renewable’ energy sources.

• **'Ombudsperson'** to protect the interests of future generations.