

Good morning,
Ladies and gentlemen

Objectives and Challenges

Let me begin by thanking you for your kind invitation to speak before you today.

The main focus of my speech will be on the political priorities of EU research programmes to encourage new energy technologies in the future.

We must seek to both *develop existing technologies and foster new technologies* in such a way that we improve the supply of cheap, available energy whilst ensuring that such technology does not impact negatively on the environment. In this respect, H2020 - and the synergies that have been developed with the structural funds - will function in such a way as to promote clean and affordable technologies.

This meeting is particularly timely given that the European Parliament is negotiating the next Framework Programme on Research and Innovation, the Horizon 2020. I am the rapporteur of the Specific Programme Implementing Horizon 2020 - The Framework Programme for Research and Innovation (2014-2020). The energy plays an important role on Horizon 2020 and the discussion today provides important inputs in the area of energy.

The key priorities for the European Parliament for the Energy sector are the following:

3. Secure, clean and efficient energy

3.1. Increasing energy efficiency and reducing energy consumption and carbon footprint through smart and sustainable and secure use

3.1.1. Bring to mass market technologies and services for a smart and efficient energy use

3.1.2. Unlock the potential of efficient and renewable heating-cooling systems

3.1.3. Foster European Smart cities and Communities

3.2. Sustainable, low-carbon, low-cost electricity supply

3.2.1. Develop the full potential of wind energy

3.2.2. Develop efficient, reliable and cost-competitive solar energy systems

3.2.4. Develop geothermal, hydro, marine and other renewable energy options

3.2.4a. Decentralised energy production

3.2.4 b. Lowering the environmental impact of transitional energy sources

3.2.4c. Develop competitive and environmentally safe technologies for CO₂ capture, transport and storage

3.3. Alternative fuels and mobile energy sources

3.3.1. Make bio-energy competitive and sustainable

3.3.2. Reducing time to market for hydrogen and fuel cells technologies

3.3.3. New alternative fuels

3.4. A single, smart flexible European energy grid

3.4.1. Energy storage

3.4.2. Back-up and balancing technologies

3.5. New knowledge and technologies

3.6. Robust decision making and public engagement

3.7. Market uptake of energy innovation, empowering markets and consumers through Intelligent Energy Europe III.

The Parliament believes that Flexible and efficient fossil fuel power plants are still essential for ensuring grid stability and security of electricity supply. In a transition period, moving on towards a low-carbon economy, we are facing the challenge to balance electricity from variable renewables with electricity from flexible conventional power plants. Conventional power plants are currently designed to operate at base-load, whereas, when backing up renewable energy, they will frequently run at part-load. In this mode, they are less efficient with an impact on emissions.

Research is needed to optimise the flexibility and efficiency of conventional power plants when operated part-load, thus ensuring that flexible and efficient backup will be available to accompany and support the growth of renewable energy and gradually enabling a higher integration of electricity from variable renewables into the grid.

In terms of funding level, the Parliament highlighted the political importance of the Energy sector suggesting an increase from 7,5% to 8,4% of Horizon 2020 budget for the Energy Societal Challenge.

I also have included the following amendment in the H2020 report:

3.4.2. Back-up and balancing technologies

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towards a low-carbon economy, we are facing the challenge to balance electricity from variable renewables with electricity from flexible conventional power plants. Conventional power plants are currently designed to operate at base-load, whereas, when backing up renewable energy, they will frequently run at part-load. In this mode, they are less efficient with an impact on emissions.

Research is needed to optimise the flexibility and efficiency of conventional power plants when operated part-load, thus ensuring that flexible and efficient backup will be available to accompany and support the growth of renewable energy and gradually enabling a higher integration of electricity from variable renewables into the grid.

According to Commission analysis in Energy Roadmap 2050, the Unions' power sector will have to decarbonise by 93-99% by 2030. In view of this, further research is urgently needed to accelerate the development and deployment of non-fossil fuel back-up and balancing technologies that are flexible and fully sustainable, in

order to successfully integrate the rapidly growing supply of variable renewable energy sources.

Finally, we are also negotiating the new European Financial Perspectives. It is of course important that we ensure that energy is properly taken into consideration in the post 2013, budget.

Conclusion

By way of conclusion, let me briefly sum up the main drift of what I have said. It is important -- if we are to guarantee cheap and readily available energy -- that we improve existing technologies whilst fostering new technologies. In the process, we must offer industry legislative certainty over a time span that extends beyond 2020.

Thank you very much