Production of electricity from renewable energy sources (RES) and Hydrogen

The use of fossil fuels for electricity production results in emission of gases that are dangerous both for the environment and our health. Using RES we can produce electricity with no dangerous gaseous emissions, therefore electricity that is friendlier for the environment.

Advantages from the use of RES.

Environment-friendly energy production

Independence from countries that export fossil fuels

Reduction in taxes due to the aforementioned reasons

Wind Turbines produce electricity using power from the wind. Wind Turbines are quite large devices used for producing electricity mainly for on a large scale level, and not a domestic one.

Disadvantages

Visual impact. The height of those installations in Greece can reach 80m.

They cannot be considered a credible source of energy since wind is neither constant nor predictable.

Limitation of human activities close to such areas (e.g. building, construction, agriculture)

There might be electromagnetic interference within a few meters distance from the turbines.

Photovoltaic (PV) panels produce electricity using sunlight as a source of energy. PV systems are recommended as means of producing electricity for small domestic consumers and not for large scale energy production. They look like solar water heaters.

Disadvantages

For the energy needs of a single house there is a lot of space required for their installation.

Their capital cost is fairly large and will be dumped in at least 10 years (data for Greece).

They are not accounted as a credible source of energy since sunlight is neither constant nor predictable.

Fuel cells are systems that can produce electricity using mainly hydrogen as a fuel. Hydrogen can store energy like it is stored today by oil or by natural gas, it is highly flammable but in use for a long time in the industry with great levels of safety. Fuel cells do not emit dangerous gases, but they do emit water vapour that can harm the ozone layer if produced in a very large scale. Their main disadvantage is the extremely high installation cost, which is expected to drop significantly in 5 years' time. Their most applicable use, seem to be replacing internal combustion engines in the transportation sector (cars, buses, etc). This application is emerging especially in the United States of America.

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HOW TO FILL IN THE QUESTIONNAIRE

If you fill in the questionnaire with the **use of computer** just erase all answers apart from the one you want to be your final answer (e.g. if your age is 27 years old ,erase all answers apart from the one saying <<26-30>>). Same way for the YES, NO and D/K (e.g. if your answer is YES delete the answers NO and D/K). At the questions having a grey box just place a **X** at the wright box.

If you fill in the questionnaire **manually** just place a **X** at your answer.

Questionnaire

Age	17-25	26-30	31-45	46+		**Sex**	Male	Female
Profession								
Level of education	Primary School		High School		University		Degree	

Have you ever heard about the production of electricity from Wind Energy? YES | NO | DK/DA

If **yes** please state your source of information (e.g. media, relative or friend, I am working in the sector, …)

_____

Do you agree with such means of producing electricity? YES | NO | DK/DA

Why **yes**?	Because of cheaper energy production on a long term basis		Why **no**?	Due to visual impact	
	Because of reduced emissions in comparison to conventional electrical power plants			Due to limitation of human activities	
	Other…… ……			Other…… ……	

If you **agree** would you be in favour of an installation of such a system near your residence? YES | NO | DK/DA

Do such schemes exist near your residence? YES | NO | DK/DA

Have you ever heard about the production of electricity from Solar Energy? YES NO DK/DA

If **yes** please state your source of information (e.g. media, relative or friend, I am working in the sector, …)

_____

Do you agree with such means of producing electricity? YES NO DK/DA

Why **yes**?	Because of cheaper energy production on a long term basis		Why **no**?	Due to visual impact - large landscape size needed	
	Because of reduced emissions in comparison to conventional electrical power plants			Due to high initial cost	
	Other…… ……			Other…… ……	

If you **agree** would you be in favour of an installation of such a system near your residence? YES NO DK/DA

Do such schemes exist near your residence? YES NO DK/DA

Have you ever heard about the production of electricity from Hydrogen? YES NO DK/DA

If **yes** please state your source of information (e.g. media, relative or friend, I am working in the sector, …)

_____

Do you agree with such means of producing electricity? YES NO DK/DA

Why **yes**?	Because of cheaper energy production on a long term basis		Why **no**?	Because such systems are dangerous	
	Because of reduced emissions in comparison to conventional electrical power plants			Due to damage to ozone layer	
	Other…… ……			Other…… ……	

If you **agree** would you be in favour of an installation of such a system near your residence? YES NO DK/DA

Would you install PV panels at your residence if you had the opportunity of doing so? YES NO DK/DA

Would you replace any kind of battery with hydrogen powered fuel cells? YES NO DK/DA

Would you buy a car that operates with fuel cells and uses hydrogen as a fuel? YES NO DK/DA

Would you support legislation that would reduce and cap emissions of the four major air pollutants (sulphurs dioxide, nitrous oxide, carbon dioxide, and mercury) from power plants? YES NO DK/DA

Would you support an energy program that would require an increasing percentage of the nation's electricity to come from renewable sources such as wind and solar? YES NO DK/DA

Would you prefer **cheaper electricity**		Or a **cleaner environment**	