



FACTSHEET Renewable Energy

Energy supply is getting more and more expensive

The EU's transition to more renewable energy is happening against a backdrop of increasing prices. The cost combination of running fridges, computers and heating rooms have reduced consumers' purchasing power.

In some Member States, energy bills burn up to 16% of household expenditures¹. Despite consumers having reduced their energy consumption since 2008 on average, the energy portion of household expenditure kept rising. Between 2008 and 2012, prices for domestic electricity (+4%) and gas (+3%) increased beyond inflation in most Member States. Consequently, 'energy poverty' levels are rising².

Elusive sustainability

Aside from being costly, European energy supply is not future-proof: It relies primarily on scarce fossil fuels. The EU imports most of these (63% of its hard coal, 66% of natural gas and 88% of petroleum products³) from world markets which face rising global demand and pricing. Limited fossil fuel resources cannot regenerate and so spur further dangerous climate change. For these reasons, the EU established binding greenhouse gas emission reduction targets and at the same time pledged increased use of clean, renewable, energy sources.



Consumers want to go green

European consumers broadly support this energy transition. Recent studies and surveys show consumers feel responsibility to contribute to climate protection and are willing to act, such as by switching to renewable electricity supply. A 2013 Eurobarometer survey found 5% of Europeans had implemented renewable energy installations in their homes⁴. Cooperatives which engage citizens in local renewable energy projects are thriving in a number of EU Member States⁵.

But does opting for 'green' electricity really make a difference?

Depending on their country, today consumers can choose from a reasonably broad range of 'green electricity' offers. A 'fuel mix disclosure obligation' and 'guarantees of origin' for electricity from renewable energy sources ('RES-GO') should support this choice.

'Guarantees of origin' (GOs) are tradable certificates as defined in the Renewables Directive 2009/28/EC. They indicate the source of one kilowatt-hour of electricity, produced in a certain generation unit in Europe. GOs are a basic tool for securing transparency of electricity mix necessary for any disclosure.

¹ European Commission: *Energy prices and costs in Europe*, COM(2014)21 /2, 21.01.2014.

² *ibid.*

³ European Commission: *Energy in figures. Statistical pocketbook 2014*, June 2014.

⁴ Eurobarometer 409, Eurobarometer 416

⁵ European Economic and Social Committee (EESC): *Changing the future of energy. Civil society as a main player in renewable energy generation. EESC study on the role of civil society in the implementation of the EU Renewable Energy Directive. Final Report*, January 2015.



Nonetheless, though electricity suppliers often claim to deliver sorts of ‘clean energy’, consumers lack clear information on what they are actually buying when opting for such ‘green tariffs’.

As GOs can be sold independent of the kilowatt-hour produced, a fossil fuel or nuclear electricity producer can buy GOs from producers of renewable energy and then use them as proof that his energy is a renewable resource. So, GOs do not necessarily ensure consumers truly support investment in the new, environmentally-friendly electricity generation. GOs represent a good and necessary tracking tool, but nothing more.

‘Additionality’ of green electricity is key

When consumers opt for green electricity, it must be ensured this positively impacts on the environment. This is only the case if their decision leads to the generation of additional green electricity and additional benefit for the environment.

From consumers to flexible ‘prosumers’?



With the cost of investment in renewable energy installations such as solar photovoltaics rapidly decreasing, self-generation becomes attractive for consumers. Aside from contributing to climate protection, using renewables at home can cut household energy costs considerably. But when consumers want to act as producers (so-called ‘prosumers’) they often meet bureaucratic barriers such as those related to grid access, permits and billing.

The rising share of locally produced renewables in the energy mix will also demand more flexibility from producers and consumers to match grid supply and demand. ‘Time of use’ tariffs may incentivise consumers to switch on their washing machine during surplus supply e.g. at noon when energy from sun power is peaking. But much is left to do in order to make sure that consumers really benefit from such flexibilities.

Policy recommendations

Certain actions are needed in order to put consumers at the centre of energy transition benefits.

- Establish clear criteria to guarantee green electricity offers result in measurable environmental impacts.
- Avoid misleading publicity or practices and ensure ‘additionality’ of green electricity offers, e.g. through independently certified quality labels.
- Bureaucratic barriers hindering consumers from producing their own renewable energy need elimination. Instead, their efforts need regulatory backing.