A low electricity extra cost for a low-carbon planet

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The Paris Agreement on climate change of 12 December 2015 reflects a virtually worldwide desire to use green energy to replace fossil energy.

There is no mention of green nuclear energy, for which a unanimous agreement was not achievable.

This study proposes an application of the Agreement that may be of interest to the Paris Committee and a large number of nations.

The Paris Agreement in fact supplements Probatex' report of October 2015 [1], which proposes that fossil energy producers invest in green energy.

The Paris Agreement is also evidence of the desire of nations and their citizens to support this investment.

As all citizens are electricity consumers, it is proposed that the extra cost of green electricity due to the need for new investment should be borne not only by the fossil energy producers but by all nations, who will pass it on to their citizens.

What is likely to be the cost of this new investment?

The International Energy Agency [2] reckons that it will be around 1,000 billion $ per year.

Private investment in green energy is currently estimated at 250 billion $ per year, while public sector investment is 125 billion $ per year [4].

The balance of 625 billion $ per year would be needed to replace fossil energy with green energy.

What would be the corresponding extra cost of electricity?

In 2013, worldwide electricity production was 23,127 TWh [3]. For 2016 it is estimated at 25,000 TWh.

The corresponding extra cost of electricity would therefore be 625 billion $ per 25,000 TWh, which leads to an extra cost of 0.025 $ per kWh, i.e**. 2.5c$ per kWh**.

The application of this small surcharge would help to limit global warming.

[1] Probatex s.c., For a fair competition between fossil and renewable energies through a proportional saving on fossil energies sold, October 2015, www.probatex.info

[2] IEA, 2014, World Energy Outlook 2014, November 2014

[3] Bernard Chabot, Renewables International (www.renewablesinternational.net)

[4] Climate Policy Initiative, Landscape of Climate Finance 2013