Press release

(On the occasion of the anniversary of the Chernobyl disaster on 26 April 1986)

New study on the cost of nuclear power

Renewable Energies Less Expensive Than NPP Projects Planned in Eastern Europe

Hamburg/Berlin, 24 April 2018 – Electricity generated exclusively from renewable energies can be less expensive than electricity produced by the nuclear power plants currently planned in several Eastern European countries and still provide the same supply security. This is the conclusion of a study by Energy Brainpool, a Berlin-based analysis institute, commissioned by the renewable power provider Greenpeace Energy. According to the study, costs for flexible and controllable renewable energy systems could be reduced to as little as EUR 100 per megawatt hour. By contrast, current nuclear power projects cost as much as EUR 126 per megawatt hour. "The financial advantage of renewables is even greater when we take into account additional costs incurred by NPP accidents and the storage of nuclear waste, not yet included" says Nils Müller, Executive Director of Greenpeace Energy.

Poland, Hungary, Slovakia and the Czech Republic are currently planning the construction of nuclear power plants—Hungary, for example, intends to do this using Russian reactor technology. One of their arguments is supply security. The NPPs in Eastern Europe would have a total net capacity of 15.6 gigawatts, which equals the capacity of all German nuclear power plants decommissioned between 2011 and 2022. This new study by Energy Brainpool for the first time compares the costs of the Eastern European NPP projects with the cost of a renewable energies power plant system that can be reliably controlled. Such a plant would consist of wind power and photovoltaic systems whose electricity surplus is converted into renewable hydrogen by means of electrolysis. This 'wind gas' serves as a storage medium and can, whenever needed, be transformed back into electricity in newly built gas power plants—some of which will have been built specifically for this purpose—at night, for example, or during extended periods of low wind.

Such a flexible green energy power plant system can compete with the proposed nuclear projects in Eastern Europe, even under today's unfavourable financing conditions: the cost of electricity generation would be EUR 112 per megawatt hour for Poland and EUR 119 for the Czech Republic. "Moreover, if these four countries cooperated more closely and distributed the electrolysis gas produced via the cross-border gas grid whenever required, and, if they improved the current difficult financial environment, for example with EU guarantees, the cost of renewables would drop to as little as EUR 100," says Fabian Huneke, author of the Energy Brainpool study.

The study also shows that current official estimates of the cost of electricity generation for nuclear power plant projects in Poland, Slovakia, the Czech Republic and Hungary of up to EUR 80 per megawatt hour are clearly too low. According to analyst Huneke, "The budget of the reference project Flamanville in France has more than doubled so far, and Hinkley Point C in the UK will ultimately receive state guaranteed subsidies of EUR 119 per megawatt hour, a figure well above market prices. Why exactly Eastern European reactors that have the same safety standards are supposed to be less expensive than in France or Great Britain is not clear."

Greenpeace Energy is therefore appealing directly to the governments of these four countries, calling on them to re-examine their nuclear plans. "The anniversary of Chernobyl is a warning reminding us that if we take an honest look at nuclear power, we see that it is not only immensely expensive, but that it also poses uncontrollable risks," Nils Müller says. "Renewables are not only safe, they also provide greater energy independence because there is no need to import fuels." Moreover, decentralised renewable systems would allow a greater share of the revenue to remain in the countries themselves.

In Müller's view, the German government also holds responsibility: "A nuclear accident in a neighbouring Eastern European country would also have a devastating impact on us and only a fraction of the resulting economic consequences would be insured," the Executive Director of Greenpeace Energy warns. It is time for Berlin to finally take action against nuclear plans in neighbouring countries and convince their governments to install clean and safe alternatives.

Editorial note: German and English versions of the Energy Brainpool study are available for download at www.greenpeace-energy.de/presse.html where you will also find additional information and graphics.

Press Contact
Christoph Rasch
Policy and Communications Officer
Greenpeace Energy eG
Telephone +49 (0) 40 808 110 658
christoph.rasch@greenpeace-energy.de
www.greenpeace-energy.de