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## Fertilizers as batteries and regulators in the global Water-Energy-Food equilibrium

**George Kirkmalis**, George-Fivos Sargentis, Romanos Ioannidis, David Markantonis, Theano Iliopoulou, Panayiotis Dimitriadis, Nikos Mamasias, and Demetris Koutsoyiannis

National Technical University of Athens, Civil Engineering, Athens, Greece (fivos@itia.ntua.gr)

Fertilizers and especially Nutrient Nitrogen, are high consumers of energy. At present, the energy crisis has a serious effect in the production of fertilizers. As the world is seeking to smooth the curves of energy production, especially by renewable energy installations, the use of potential energy surplus in fertilizers' production could be an alternative practice. Fertilizers can be utilized for the cultivation of energy crops or food (which also has an energy equivalent). In this work, we attempt to evaluate the potential of the integration of fertilizers in the energy production both for energy recovery and for the avoidance of possible failures by the deficit of fertilizers in the global Water-Energy-Food equilibrium.