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Parliamentary questions

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E-000812/2018(ASW)

Answer given by [Mr Arias Cañete](#) on behalf of the Commission

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The Commission is aware of recent improvements in the International Thermonuclear Experimental Reactor (ITER) Organisation (IO)'s presentation of the projected energy input-output ratios of ITER's future operations. The IO website now states unambiguously that the performance of ITER will be assessed by the so-called fusion Q, i.e. by comparing the thermal power output of the plasma with the thermal power input into the plasma.

This is a scientifically valid approach used also in other projects. The alternative methodology which looks at the total power needed to operate all the equipment required by ITER's fusion experimental operations (thus including the power needed by the magnets etc.), known as engineering Q, is however not suited for an installation like ITER whose aim is to prove the scientific and technological feasibility of fusion energy for peaceful purposes⁽¹⁾ and is therefore not designed for producing electric power.

Assessing the ITER operations through the engineering Q will not accurately and clearly describe the properties of the fusion reaction because it will also depend to a large extent on the performance of the auxiliary systems such as the magnets, heating systems etc. The so-called DEMO project foreseen in the Fusion Electricity Roadmap⁽²⁾ will exploit further the ITER results.

The Commission's position towards ITER and the potential of fusion as a future energy source does not change. The Commission has always ensured that its decisions on the ITER project and its policy proposals to European decision-makers are based on its obligations under the ITER Agreement and the proper understanding of the physics of the ITER project, established from within the Commission services and through interactions with the European fusion community and external independent experts.

(1) Article 2 of the Agreement on the Establishment of the ITER International Fusion Energy Organisation for the Joint Implementation of the ITER Project. Available at: https://www.iter.org/doc/www/content/com/Lists/WebText_2014/Attachments/245/ITERAgreement.pdf

(2) Fusion Electricity — A roadmap to the realisation of fusion energy, EFDA, 2012, <https://www.euro-fusion.org/wpcms/wp-content/uploads/2013/01/JG12.356-web.pdf>

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