Organisation for Economic Co-operation and Development

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NUCLEAR ENERGY AGENCY
COMMITTEE FOR TECHNICAL AND ECONOMIC STUDIES ON NUCLEAR ENERGY DEVELOPMENT AND FUEL CYCLE

Mandate - Ad hoc Expert Group on Maintaining Low-Carbon Generation Capacity through LTO of Nuclear Power Plants: Economic, Technical and Policy Aspects (EGLTO)

Activity 4.4 NDC (PoW 2017-2018)

Document submitted for approval under the written procedure.

If no comments are received by the Secretariat by 22 January 2018, the proposed new mandate will be considered as approved on that date.

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Ad hoc Expert Group on Maintaining Low-Carbon Generation Capacity through LTO of Nuclear Power Plants: Economic, Technical and Policy Aspects (EGLTO)

Members:	All NEA member countries
Full Participant:	European Commission *Under the NEA Statute*
Participant(s):	
Observer(s) (international organisations)	International Atomic Energy Agency (IAEA) *By agreement*
Date of creation:	1 April 2018
End of mandate:	30 March 2020

Mandate (Document reference):

- NDC - Final Programme of Work for 2017-2018 [NEA/NDC(2017)1]
- Minutes of 67th meeting of the Committee for Technical and Economic Studies on Nuclear Energy Development and the Fuel Cycle (NDC) [NEA/NDC/M(2016)2/FINAL]

Mandate

Mission and objectives

The study will review the technical and economic aspects of long-term operation (LTO) of existing nuclear power plants (NPPs) and their interaction, taking into account the following items:

- The need for major investments in maintenance and refurbishment, including those brought about by regulatory changes, as well as additional safety requirements due to the Fukushima Daiichi accident;
- Changes in operation and maintenance (O&M) costs (e.g., higher personnel costs or similar);
- Changes in market conditions, e.g. decline in wholesale electricity or decreasing capacity factors due to competing technologies (subsidised renewables, cheap fossil fuels), tax regimes, absent or ineffective carbon pricing;
- The impact of the operational lifetime on the costs and funding of waste management and decommissioning.

In the coming years, a large number of owners of NPPs will have to make decisions on extending the lifetime of their plants and their continued operation taking these factors into consideration, as they impact the overall competitiveness of their nuclear plants within the overall generation mix. This will be happening while a number of governments are developing policies to decarbonise their energy systems, and in particular the electricity mix. Hence the question of LTO will also be analysed from a decarbonisation policy viewpoint.

Working methods (organisational structure and mode of operation and co-operation)

Members of the expert group will be nominated by the members of the Committee for Technical and Economic Studies on Nuclear Energy Development and the Fuel Cycle (NDC). The Ad hoc Expert Group will collaborate with the International Energy Agency (IEA), notably with its Energy Technology

Policy (ETP) Division, which makes assumptions on LTO in various countries as part of their 2°C Scenario (2DS) analysis, as well with as industry representatives as necessary and approved by the NDC.

Nominated experts will meet on a regular basis (approximately twice a year) to:

- Discuss and define the expected deliveries of the study and the detailed programme of work;
- Present countries and industry contributions to feed the study;
- Carry out the study.

Deliverables

The Ad hoc Expert Group will produce a report with the support of the Secretariat.