

# ***Nuclear Energy for Poland***

## ***Managing Safe and Reliable Energy Supply***

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### **Abstract**

Poland's government resolution to develop and implement a Polish nuclear power program for energy security initiates numerous activities in society and the administration to fulfil the task of safe and reliable nuclear energy supply.

With an insider's view from the outside an overview of the scientific and technical conditions and challenges will be presented. Certainly, pursuing a nuclear energy program comprises much more than operating reactors. The reactor technology and safety schemes, proper staff training and operations surveillance are, in fact, a prerequisite. Moreover, an integrated safety and waste management program reflects on and affects options and the choice of technologies. For that reason, the commonly less addressed fields of radiological waste conditioning and disposal management will be discussed. The physical and chemical metrology of radwaste package characterisation and product quality control aspects will be introduced. A potential role of advanced waste treatment, such as partitioning and future fuel design will be presented and the consequences for the reactor technology and national energy concepts will be considered.

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