

CLIMATE DECLARATION FOR ELECTRICITY FROM NUCLEAR POWER

Functional unit: 1 kWh net electricity

The climate declaration shows the emissions of greenhouse gases, expressed as CO₂-equivalents. It is based on verified results from a life cycle assessment (LCA) performed as basis for an EPD[®] (Environmental Product Declaration), in accordance with ISO 14025.

Product

Vattenfall AB has majority ownership in seven reactors in Sweden, three boiling water reactors (BWR) at Forsmark (together 3274 MW and app. 24,6 TWh/year) and one BWR and three pressurized water reactors (PWR) at Ringhals (together 3717 MW and 24,4 Twh/year). They are base load plants.



Forsmark nuclear power plant



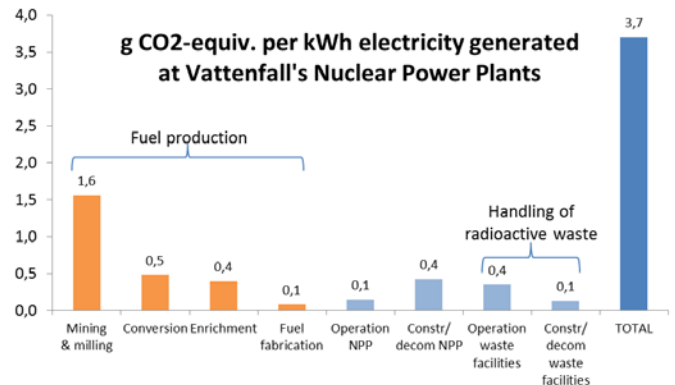
Ringhals nuclear power plant

Company

Vattenfall AB is the fifth largest electricity generator and the largest heat producer in Europe. Forsmarks Kraftgrupp AB and Ringhals AB are both part of Vattenfall AB and responsible for the operation of the nuclear power plants. Vattenfall owns 66% of Forsmark and 70,4% of Ringhals. Forsmarks Kraftgrupp AB and Ringhals AB both implement an environmental management system, certified and registered according to ISO 14001/EMAS and to OHSAS 18001.

Climate Declaration

The life cycle stages construction/operation/dismantling of power plants and facilities for handling/storage of radioactive waste as well as the four fuel production stages from mine to power plant have been inventoried and assessed. According to the LCA results the total emission of greenhouse gases is 3,7 g CO₂-equivalents per generated kWh, calculated as the weighted mean value of Forsmark and Ringhals.



Other Environmental Information

The complete certified declaration also contains information on calculation methods, greenhouse gas emissions due to distribution of electricity, and LCA results for other emissions, resource use and waste as well as descriptions of environmental risks and impacts on biodiversity in accordance with the EPD[®] system requirements.

Contact Details

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LINK TO MORE INFORMATION: WWW.ENVIRONDEC.COM/		EPD PROGRAMME: THE INTERNATIONAL EPD [®] SYSTEM, WWW.ENVIRONDEC.COM	
EPD REGISTRATION NO: S-P-00021/26	PCR CPC171 2013:2.02	PCR REVIEW CONDUCTED BY: IEC TECHNICAL COMMITTEE	
INDEPENDENT VERIFICATION OF THE DECLARATION AND DATA, ACCORDING TO ISO 14025, HAS BEEN PERFORMED WITHIN VATTENFALL'S CERTIFIED EPD MANAGEMENT PROCESS. THIRD PARTY VERIFICATION OF VATTENFALL'S EPD MANAGEMENT PROCESS HAS BEEN CONDUCTED BY THE ACCREDITED CERTIFICATION BODY: BUREAU VERITAS CERTIFICATION (ACCREDITED BY SWEDAC)			
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