

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 lifecycle 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 3 090 MW and app. 23 TWh/year) and one BWR and three pressurized water reactors (PWR) at Ringhals (together 3 550 MW and app. 25 TWh/year). They are base-load plants of the Swedish electricity system.



Forsmark nuclear power plant.



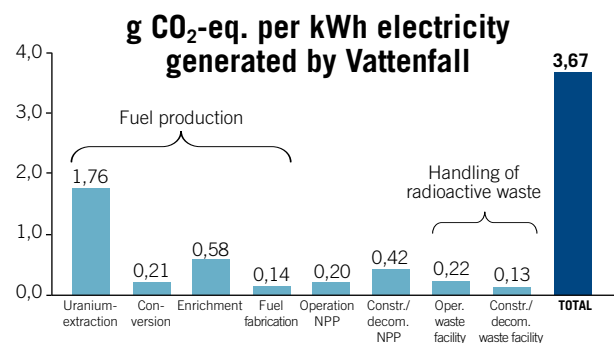
Ringhals nuclear power plant.

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 74,2% of Ringhals. Forsmarks Kraftgrupp AB and Ringhals AB both implement an environmental management system, certified and registered according to ISO 14001/EMAS.

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 3,67 g CO₂-equivalents per generated kWh.



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.climatedec.com/21		EPD PROGRAMME: THE INTERNATIONAL EPD®SYSTEM, www.environdec.com	
EPD-REGISTRATION NO: S-P-00021 AND S-P-00026 (MEAN VALUE)	PCR CPC17 2007:08	PCR-REVIEW CONDUCTED BY: IEC TECHNICAL COMMITTEE	
INDEPENDENT VERIFICATION OF DECLARATION AND DATA IN ACCORDANCE WITH ISO 14025: EXTERNAL VERIFIER: BUREAU VERITAS CERTIFICATION		ACCREDITED / APPROVED BY: SWEDAC	
CLIMATE DECLARATIONS FROM DIFFERENT PROGRAMMES ARE NOT COMPARABLE			
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