

CLIMATE-FRIENDLY ELECTRICITY FOR SOCIETY

	THEME	TARGET	ACTUAL RESULT 2023	SDG
	Climate-friendly electricity production	<ul style="list-style-type: none"> » With the regular electricity production of OL3, approximately 30% of Finland's electricity can be produced at Olkiluoto, and by replacing the average electricity production carbon dioxide emissions in EU-27 countries, OL3's production reduces annual carbon dioxide emissions by approximately 3,5 million tonnes. 	<ul style="list-style-type: none"> » OL3 commenced commercial operation on May 1, 2023. » Lifecycle GHG emissions were calculated for all plants collectively with a GWP-total without downstream infra 9.1 g CO₂e/kWh (with downstream infra 13.8 g CO₂e/kWh) 	7.1 13.2
	Responsible nuclear waste management	<ul style="list-style-type: none"> » Posiva's final disposal activities begin according to plan in the mid-2020s. » Final disposal is carried out on an industrial scale – about 400 tU spent fuel is disposed safely and according to cost estimates by 2030. 	<ul style="list-style-type: none"> » The processing of Posiva's operating licence has progressed at the Radiation and Nuclear Safety Authority (STUK), and Posiva submitted responses to the requests for additional information. In September 2023, the Radiation and Nuclear Safety Authority reported that the safety assessment and statement on the operating licence application for the final disposal facility for spent nuclear fuel will not be completed in 2023. » The progress of Posiva's project is described in more detail in the chapter "Final disposal of spent nuclear fuel" (p. 55–57). 	7.1
	Emissions	<ul style="list-style-type: none"> » TVO Group's own operations are climate neutral by 2030. 	<ul style="list-style-type: none"> » The TVO Group's Scope 1 greenhouse gas emissions were 2,337 t CO₂eq. Scope 2 emissions were 37,809 t CO₂eq. 	7.1
		<ul style="list-style-type: none"> » The thermal load of cooling water does not exceed 56.9 TWh annually. 	<ul style="list-style-type: none"> » The thermal load of cooling water was 44,3 TWh. 	14.1
		<ul style="list-style-type: none"> » Radioactive emissions to air and water are kept clearly below authority limits (continual). 	<ul style="list-style-type: none"> » Radioactive emissions were clearly below authority limits. 	14.1 15.5
	Biodiversity	<ul style="list-style-type: none"> » 0 environmental accidents (in the serious/significant category) annually. 	<ul style="list-style-type: none"> » There were 0 environmental accidents. 	15.5
		<ul style="list-style-type: none"> » Efficient land use: share of produced electricity with respect to the surface area of built environment ca. 15,647 GWh/km² from 2023 onwards. » At least one voluntary project promoting biodiversity carried out annually. 	<ul style="list-style-type: none"> » The amount of produced electricity with respect to the surface area of Olkiluoto's built environment was 14,512 GWh/km². » Preparations were made during the year for establishing a new natural meadow at Olkiluoto in 2023. 	15.1 15.1
	Circular economy	<ul style="list-style-type: none"> » Minimisation of waste volume and recycling waste as material, at least 55% annually by 2025 and 60% annually by 2030. » 0 kg of landfill waste annually. 	<ul style="list-style-type: none"> » Approximately 64% of waste was recycled as material. » There was 0 kg of landfill waste. 	15.5
		Energy efficiency	<ul style="list-style-type: none"> » Commitment to the goals set out in the Energy Efficiency Agreement period 2017–2025, as well as the goals of the following period. Goals are advanced by carrying out at least four location reviews and one plant measurement annually in Olkiluoto. 	<ul style="list-style-type: none"> » One location reviews were carried out, and plant measurements were performed at the OL1 and OL2 plant units after the annual outages.

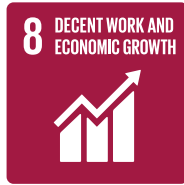
HIGH-CLASS SAFETY CULTURE

	THEME	TARGET	ACTUAL RESULT 2023	SDG
	Safety culture	» No deficiencies in IAEA's safety culture levels 1 and 2 (continual).	» One incident challenging the level of safety culture occurred relating deviation from the minimum staffing requirement for the operating shift.	8.8
	Occupational health & safety	» No serious accidents in the TVO Group, including contractors (continual).	» There were no serious accidents.	8.8
		» The TVO Group's accident frequency (accidents per one million working hours) below 1 , including contractors, by 2030.	» The accident frequency was 3.8 accidents per one million working hours.	8.8
	Radiation protection	» Individual radiation doses incurred in Olkiluoto below half of authority limit (continual).	» The highest annual individual dose was 5.6 mSv. (authority limit: 20 mSv).	8.8
Plant safety	» No events at INES 1 or higher (continual).	» There were two INES 1 events at the Olkiluoto power plant.	8.8	

ADDED ECONOMIC VALUE

	THEME	TARGET	ACTUAL RESULT 2023	SDG
	Customer oriented & competitive activities	» The load factor of the Olkiluoto 1 and 2 plant units is 90–95% as a rolling three-year average (continual).	» The rolling three-year average of the load factor was 93.1%.	8.1
		» The rolling three-year production cost average is below 20 €/MWh in 2023. Calculating from OL3's first full production year, the rolling three-year average is below 30 €/MWh. Reported for the first time in 2026.	» The rolling three-year average of the production cost was 21.96 €/MWh.	8.1
	Nuclear power as a desired production form	» Reputation index over 75 (excellent) in the stakeholder survey (continual).	» The reputation index in the latest stakeholder survey (2023) was 84 (excellent).	8.8
	Funds ready for final disposal	» The necessary funds for final disposal are secured through payments to the Finnish State Nuclear Waste Management Fund (continual).	» TVO's liability for nuclear waste management in the Finnish State Nuclear Waste Management Fund was EUR 1,918 million for the end of 2023.	8.2

WELL-BEING OF EMPLOYEES & STRONG NETWORKS



THEME	TARGET	ACTUAL RESULT 2023	SDG
Occupational health	» Personnel survey (People Power Index) result at level AA (good) achieved by 2025.	» In the latest personnel survey (2023), the People Power Index was at level A (satisfactory).	8.8
	» Sick leaves (% of working time) below 3% annually.	» TVO's sick leaves were 2.8% and Posiva's were 1.5%.	8.8
	» Employees' pension insurance (TyEL) category below 4 (continual).	» The employees' pension insurance category was 2 for TVO and 1 for Posiva.	8.8
High-class expertise	» Actualisation rate of competence surveying over 90% annually.	» The actualisation rate of competence surveying was 74%.	8.5
	» Inspection rate of individual training plans over 90% annually.	» The inspection rate of individual training plans was 83%.	8.5
Professional development	» Employees' changes in position over 5% annually.	» 8.1% of the Group's permanent employees changed positions. The figure includes only actual changes in assignments within the Group.	8.5
	» Actualisation rate of navigation discussions over 90% annually.	» 98% of Group employees took part in at least one navigation discussion.	8.5
Employer role	» Recruiting over 100 students for internships annually.	» The TVO Group employed a total of 101 trainees during the year.	8.5
Responsible supply chain	» All suppliers of raw uranium and its conversion services are evaluated every 3–5 years depending on the supplier.	» Two supplier evaluations were carried out for suppliers of raw uranium and its conversion and enrichment stages. Evaluations were also carried out for a fuel manufacturer's three fuel factories, as well as one subcontractor of a fuel manufacturer and one component factory.	8.8
Stakeholder cooperation	» The most important stakeholders feel that the TVO Group's activities can be trusted, and that the Group communicates transparently on its operations. The indicators measuring experiences on trust and transparency are over 75, i.e. excellent, in the stakeholder survey (continual).	» Trust in the TVO Group's activities was 84 (excellent), and the view on communications was 75 (excellent) in the latest stakeholder survey (2023).	8.8

TRAILBLAZER IN THE NUCLEAR INDUSTRY AND FINAL DISPOSAL



THEME	TARGET	ACTUAL RESULT 2023	SDG
Research & development	» R&D operations advance the safety, business activities, and future technological solutions of the plant units and final disposal of spent fuel with the help of networks and research projects (continual).	» The central R&D projects and cooperation partners are described in the chapter "Research and development".	9.5
Reliable use of the plant units	» 0 unplanned automatic scrams (continual).	» There was one unplanned automatic scram.	9.4
	» Annual unplanned energy unavailability factor <0.4% (1.5 days/year) of total production of OL1 and OL2 by 2024.	» The unplanned energy unavailability factor was 2.9%	9.4
Increasing final disposal expertise	» Posiva has the best knowledge and expertise in the final disposal of spent nuclear fuel, and it is the most desired international reference and valued partner (continual).	» Posiva's employees had 5.6 training days/employee. PSOY's turnover was EUR 4 million.	9.5