Water withdrawals – volumes by source

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

☑ Continuously

(9.2.3) Method of measurement

Water withdrawals are measured continuously by water flow meters & cross checked monthly with water invoices

(9.2.4) Please explain

Water is vital for our operations and we have also set KPI's for our water withdrawal for our operations in İzmit and Aksaray production facilities. For this reason, our water withdrawals from third party sources (municipal water) as well as renewable groundwater are monitored for each source by flow meters and cross checked with billed amounts at these production facilities, and for other locations we use the billed amounts (100%). As part of our ISO 14046 water footprint inventory, we monitor our water accounting data from all locations under our operational control. We also have collection ponds for rainwater at both İzmit and Aksaray plants and they are also 100% monitored via flowmeters. In 2023 we have started purchasing grey water from ISU (Kocaeli Water and Sewage Administration) at our İzmit facility. By using grey water, we were able to decrease our water withdrawals from renewable groundwater.

Water withdrawals quality

(9.2.1) % of sites/facilities/operations

Select from:

☑ 100%

(9.2.2) Frequency of measurement

Select from:

(3.6.1.3) Opportunity type and primary environmental opportunity driver

Resource efficiency

☑ Cost savings

(3.6.1.4) Value chain stage where the opportunity occurs

Select from:

☑ Direct operations

(3.6.1.5) Country/area where the opportunity occurs

Select all that apply

☑ Turkey

(3.6.1.6) River basin where the opportunity occurs

Select all that apply

☑ Other, please specify :Medierranean Sea, East Coast Major, Lake Tuz Minor Basin and Black Sea South Coast Major, Kocaeli Minor Basin

(3.6.1.8) Organization specific description

A major water-related opportunity at our production facilities is the potential to reduce water-related OPEX via implementing water efficiency projects & recycling as much water as possible to minimize our dependency on external water supplies. Our İzmit and Aksaray plants make up more than 99% of our total water withdrawals. Using water resources efficiently and increasing water efficiency are critically important for our sustainability. We maintain this through several actions and projects. Water recycling and reuse target for 2025 was set in 2021, and this target was achieved in 2024. In order to minimize the impact of our activities on water resources, we recycle and reuse water in our production facilities. We participated in the "Grey Water Project" of Kocaeli Metropolitan Municipality" to use their gray water after treating it. By using gray water, we are able to find a sustainable alternative to well water and decrease our well water use. We also reuse water collected from "Rainwater Collection Pond Project" in both İzmit and Aksaray plants.

(3.6.1.9) Primary financial effect of the opportunity

Select from:

☑ Reduced indirect (operating) costs

8.5 scenarios to make assumptions on the minimum and maximum potential amount of loss of production tonnage both facilities can be impacted from due to regulatory restrictions on water withdrawals. Assumptions made: In case of a possible water outage in İzmit we can continue by using pond water for 5 days. In the long term, using RCP 4.5 scenario, water restraints can lead 2% production loss in İzmit, however by using pond water this loss is lowered to %0.59. In the same scenario Aksaray plant might suffer up to a 10% loss in its production tonnage. For the maximum impact scenario, using RCP 8.5 Izmit plant can loose 10% of its production tonnage however by using pond water this loss is lowered to 8.5%. In the same scenario, Aksaray plant might lose 20% of its production tonnage. Minimum Impact, RCP 4.5 Scenario, Long-Term: İzmit plant production loss: 0,59% which approximately equals to 724,000 USD for the reporting period. Aksaray plant production loss: 10%, which approximately equals to 2,650,000 USD for the reporting period. Total min. impact: 3,374,000 USD Maximum Impact, RCP 8.5 Scenario, Long-Term: İzmit plant production loss: 8.5% which approximately equals to 10,490,000 USD for the reporting period. Aksaray plant production loss: 20%, which approximately equals to 5,300,000 USD for the reporting period. Total max. impact: 15,790,000 USD

(3.1.1.26) Primary response to risk

Infrastructure, technology and spending

☑ Increase environment-related capital expenditure

(3.1.1.27) Cost of response to risk

599698

(3.1.1.28) Explanation of cost calculation

Using water resources efficiently and increasing water efficiency are critically important for our sustainability. We maintain this through several actions and projects. Total cost of response in 2024 is 599,698 USD including the following: In our İzmit plant: - Opex for; Opearation of a new treatment process for recycling domestic wastewater, grey water purchasing, from ISU, leakage elimination, online scada system for monitoring water use, maintenance and repair, purchased water bills, maintenance of wastewater, wastewater analysis, ISO 14046 water footprint consultancy-validation; 559,234 USD - Capex for; water circularity and efficiency improvement project; 19000USD In our Aksaray plant: - Opex for; Opearation of treatment plant, cost of chemicals, maintenance and repair, purchased water bills, maintenance of wastewater, wastewater analysis, ISO 14046 water footprint consultancy-validation; 21,464 USD.

(3.1.1.29) Description of response

SITUATION: Our production processes are highly dependent on water. If the governments and/or municipalities enforce statutory withdrawal limits we may be forced to shut down our operations. Although this is a long-term risk with medium level of probability, its impact can be extremely high on our operations. TASK: Reduce the dependency on water sourced from groundwater and 3rd parties. ACTIONS: We follow our water footprint while supporting international initiatives in the field of water. In 2024, significant progress was made in water management practices. At the İzmit and Aksaray plants, water collected through the Rainwater Collection Pond Project was reused. In collaboration with a local start-up, an online SCADA system was implemented to monitor consumption, detect anomalies, and forecast future needs, thereby enhancing efficiency and awareness. Infrastructure improvements reduced groundwater and network water withdrawal, while dedicated teams ensured rapid response to leakage points. At İzmit, domestic wastewater was treated in the biological wastewater treatment facility and reused, and gray water