

WASTE GENERATION AND UTILIZATION

Waste treatment policy and measures [GRI 103]

In accordance with legislative requirements, Inter RAO develops draft standards for waste generation and the limits of its disposal. Solid residue from coal firing is the most widespread type of waste from the Group's energy facilities. Ash and slag waste, which account for the bulk of waste generated by the Group, are classified as hazard class 5, which means they have a minimal impact on the environment.

In order to achieve its environmental goals in terms of sustainable waste management, the Group engages in the following activities:

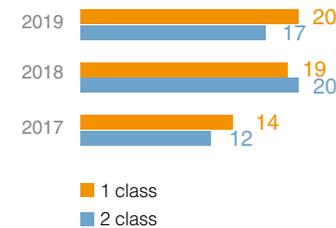
- Improving the energy efficiency of production, energy and resource conservation, and technological discipline
- Organizing separate waste collection and the beneficial use of any production waste to the extent that it is possible
- Eliminating environmentally hazardous, harmful substances, and high-waste technological processes from production where possible and monitoring the environmental features of energy fuels, materials, and equipment that are purchased and used

Systematic work is underway to reduce the volume of industrial waste sent to landfills for disposal, including similar municipal solid waste, by organizing selective waste collection and sending it off for utilization.

Waste generation [GRI 306-2]

Inter RAO companies transfer the waste they generate under contracts to specialized organizations that have licenses to transport, collect, and further handle waste. The Group's power plants have organized the selective collection of certain types of waste that are then transferred for disposal. Inter RAO does not transport waste on its own. The waste it generates is transferred to specialized organizations that have licenses for the right to collect and further handle waste. [GRI 306-4]

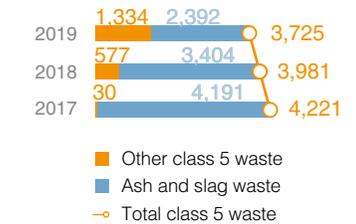
Class 1 and 2 waste generation, t [GRI 306-2]



Class 3 and 4 waste generation, t [GRI 306-2]



Class 5 waste generation, thousand t [GRI 306-2]



Solid substances generated during coal firing (ash and slag waste) are the primary type of waste produced at the Group's power facilities, accounting for roughly 96% of the total volume of all waste generated by the Group. Based on the extent of their environmental impact, ash and slag waste is classified as hazard class 5 (minimal environmental impact). In 2019, total ash and slag waste generation decreased by 42% compared with 2018 to 2,392,000 tons. The main reasons for this are a decrease in coal production and an increase in its efficiency.

In an effort to reduce the formation of oily waste, oil circuit breakers are being replaced by gas-insulated and vacuum circuit breakers. In accordance with legislative requirements, draft standards for waste generation and the limits of its disposal are being developed at all the Group's Russian production assets.

Waste disposal and recycling [GRI 306-2, 306-3, 306-4]

Due to production specifics, the most high-volume waste at the Group's facilities is ash and slag waste (ASW), which can create adverse environmental situations in the event of dusting or if ash components are washed away and possibly enter the soil and aquifers. The ash and slag waste generated at the Group's enterprises is classified as hazard class 5 (practically non-hazardous) and their environmental impact is minimal. In an effort

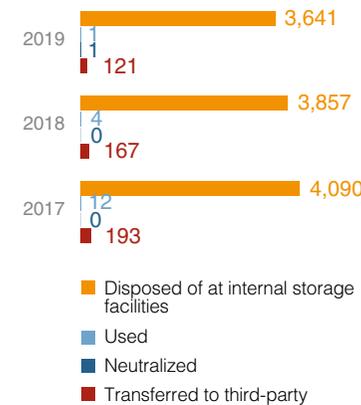
to eliminate the chance of chemical components from the ash dump entering the environment, the Group's facilities utilize the best available technologies for creating protective screens. In order to minimize dusting, ash and slag waste is stored at the Group's ash dumps in a flooded state. In some cases, when necessary, the Group's facilities employ such measures as placing bonding agents, such as bischofite, an environmentally friendly natural material that is capable of forming a mineral polymer that prevents dusting, on the surface of the dumps.

Given that Russia does not have a permanent developed market for supplying ash and slag waste, no predictions can currently be made about how ash and slag waste and other types of waste will be utilized going forward. However, some of the Group's coal generating assets have reached a high degree of readiness for marketing various types of ash and slag materials and are equipped with dry ash shipment systems.

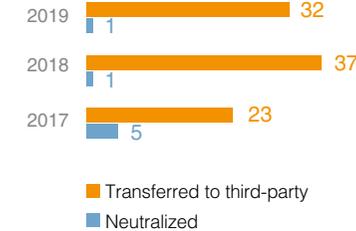
Inter RAO facilities reuse a portion of their waste:

- 80% of the assets of JSC Inter RAO – Electric Power Generation organized recycling with the subsequent disposal of paper, cardboard, and plastic waste in 2019.
- The Kharanorskaya TPP is using floating petroleum products and sludge as a fuel additive when firing boilers with fuel oil (specifications have been developed for use).
- The Kostromskaya TPP is utilizing sludge from the sludge lagoons of treatment facilities: the sludge is held in the lagoons for 2-3 years and then the dry sludge is shipped for use as fertilizer (compost) for subsoil placement.
- The facilities of LLC BGC in 2019 fully discontinued the removal of such waste as oil-containing oils, scrap metal, paper, cardboard, cullet, plastic and polyethylene wastes, soil, and used filter materials.

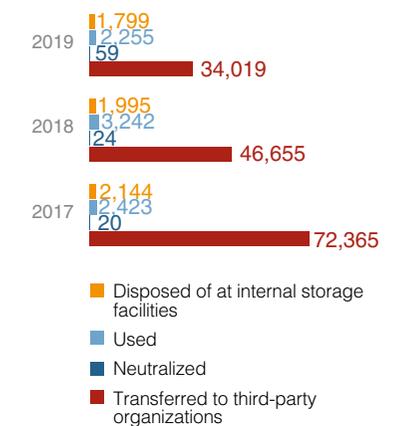
Class 5 waste disposal, thousand t [GRI 306–2].



Class 1 and 2 waste disposal [GRI 306–2, 306–4]



Class 3 and 4 waste disposal [GRI 306–2, 306–4]



- Equipment installed at the enterprises of LLC BGC for sludge dewatering during mechanical treatment of natural waters made it possible to minimize the negative environmental impact due to the elimination of slime water disposal facilities. The solid fraction from mechanical treatment was converted to a soil by-product that is sold on a contractual basis.

The Moldavskaya TPP is actively reusing oil-containing waste as fuel (oil sludge, used motor, compressor, and industrial oils). Used turbine oils are partially returned to the cycle after treatment. Rabbit waste is remelted to make bearings. Worn-out work clothes are used as rags. The plant is also recycling their own electrolyte batteries (150 kg) and shipping them off for disposal and providing assistance to the public in organizing the recycling and disposal of batteries (35.5 kg).

No emergency (significant) spills of chemicals, oils, or fuel occurred at Inter RAO facilities in 2019. **[GRI 306-3]**