

District heating from woody biomass - Primiero San Martino di Castrozza



Being an Alpine municipality, Primiero San Martino di Castrozza tends to use wood as a primary source for the production of heat and therefore uses woody biomass district heating systems as a tool to reduce the use of fossil sources and CO₂ emissions in atmosphere.

The ACSM Group manages two woody biomass district heating plants. Both systems allow hot water to be brought to the buildings in the valley. By collaborating with the ACSM Municipal Consortium Company since 2010, the municipality has begun to pay attention to the energy efficiency of the local building heritage, the exploitation of renewable energy and actions that could lead to climate change mitigation. Thermal energy is produced for about 42 GWh per year and 5 GWh of electricity are generated from cogeneration, for an installed biomass power of 16.1 MW and an installed electrical power of 1 MW. This energy is distributed to the users of the territory through a biomass district heating network. In order to protect issues relating to the environment, construction and citizen services, the Municipality of Primiero San Martino di Castrozza made use of a Municipal Regulatory Plan (PRG), thanks to which it was able to carry out the recovery and redevelopment of existing buildings, as well as applying volumetric bonuses and / or deductions from the calculation of the volume of parts of the buildings intended to improve the energy performance of the buildings.

The woodchip requirements of the district heating plants helped to generate the spontaneous start-up of a local supply chain engaged in the recovery of wood waste with further positive repercussions both from a social and economic point of view and in terms of the environmental quality of the forests. In fact, of the approximately 100,000 cubic meters of wood chips consumed on average each year by the ACSM Group, over 60% come from Primiero and Vanoi and the remainder is found within a maximum radius of 70 km.

Since 2017 a Regulation has been drawn up aimed at owners of domestic users with the aim of stimulating, through discounts on consumption in the district heating bill, the transfer of wood for private combustion to operators in the local supply chain and limit the effects negative on the air quality of this activity. Through the construction of biomass district heating plants, there has been a drastic reduction of fossil fuel, emissions of pollutants into the atmosphere and at the same time greater energy efficiency and the dismantling of old domestic boilers.