In Denmark, biomass such as straw or woodchip is utilised as a fuel for generating energy. Biomass is a "carbon dioxide neutral fuel" and therefore does not contribute to the greenhouse effect. When straw is combusted, potassium chloride and potassium sulphate are present in ash products, which condense on superheater components. This gives rise to specific corrosion problems not previously encountered in coal-fired power plants. The type of corrosion attack can be directly ascribed to the composition of the deposit and the metal surface temperature. To avoid such high corrosion rates, woodchip has also been utilised as a fuel. Combustion of woodchip results in a smaller amount of ash, and potassium and chlorine are present in lesser amounts. However, significant corrosion rates were still seen. A case study of a woodchip fired boiler is described. The corrosion mechanisms in both straw-fired and woodchip fired boilers are discussed.