

Heating recycling

At the same time as producing electricity, thermal power stations also produce a great deal of heat. If utilised, this residual heat not only increases energy efficiency but also delivers excellent economic benefits. Aside from traditional forms of coal power residual heat utilisation, nuclear power residual heat utilisation has huge potential. Currently, the rate of residual heat utilisation in power plants is only 3% (not including combined heat and power (CHP)) and nuclear power residual heat utilisation has still not been developed.

Trajectory 1

In this scenario, China has still not yet developed residual heat utilisation technology. In 2050, the rate of

residual heat utilisation in power plants is still 3%, and nuclear power residual heat utilisation is 4%.

Trajectory 2

In this scenario, with the endorsement of energy saving and emissions reductions policy, residual heat utilisation in power plants begins to popularise. In 2030 the residual heat utilisation rate reaches 15%, and then in 2050 it reaches 30%. Nuclear power residual heat utilisation technology begins to be used from 2025, and in 2050 its utilisation rate reaches 6%.

Trajectory 3

In this scenario, residual heat utilisation in power plants is developed on a wide scale. In 2030, the utilisation rate is 25%, in 2050 this reaches 50%. Nuclear power residual heat utilisation technology begins to

be used from 2020, and in 2050 its utilisation rate reaches 8%.

Trajectory 4

In this scenario, the economic benefits of residual heat utilisation in power plants is significant, and in 2030 utilisation rate reaches 50%, rising to 70% in 2050. Nuclear power residual heat utilisation technology begins to be used from 2015, and in 2050 its utilisation rate reaches 8%.