

**Building name:** Nováky Power Station  
**Use of building:** thawing tunnels  
**Place:** Nováky, Slovakia  
**El. heating application:** Ecosun S+ 36 (3600W), Ecosun S+ 12 (1200W)

Nováky Power Station has decided to modernize its tunnels for thawing frozen coal. A total of 486 Ecosun S+ 36 panels and 108 Ecosun S+ 12 panels were installed for use as tunnel thawing equipment. The thawing is controlled by an RS AGS fully-automated system from the power station control room on the basis of input data regarding wagons and outdoor temperatures.

**Description of the thawing process:**

Brown coal is transported to Nováky Power Plant by rail. Unfortunately, during the winter months, the trains arriving with coal are frozen but still need to be emptied completely. Until recently, coal was thawed by hot air pumped from the power blocks where the air temperature reaches 120° C. However, this thawing system needed to be changed due to block shutdowns. A search began for a technical solution which would contribute to lowering of operating costs. The challenge for the operating and maintenance engineers was to combine several requirements: to continue using the existing space available in the thawing tunnels, ensure efficient and continuous thawing, achieve the most advantageous acquisition costs, optimize the operating costs and lower the heat loss while increasing the reliability and exactness of temperature regulation. After the evaluation of all available information, large-scale surface heating using electric infrared heaters was recommended for the thawing of wagons.

