

# **Danish trough solar power generation system**





## Overview

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Large solar collector fields are very popular in district heating system in Denmark, even though the solar radiation source is not favorable at high latitudes compared to many other regions. Business mod.

Can a parabolic trough collector be used for solar district heating?

Parabolic trough collectors and compound parabolic trough collectors are been testing in the pilot projects. 4th generation district heating systems with low temperature and smart integration with other energy technologies also provide many potential for solar district heating plants .

Which solar collectors are used in Danish solar district heating plants?

Flat plate collectors used in Danish large solar district heating plants have larger size than the normal ones in the market. The aperture area can be in the range between 12.6 and 14.5 m<sup>2</sup>. The typical solar collectors used in Danish solar district heating plants can be found in Fig. 11.

Why are large solar district heating plants in Denmark so popular?

1. Low solar heat price is the main driving force of large solar district heating plants in Denmark. High heat price of electricity and natural gas boiler systems results in that the solar heat is very competitive for the end-users. 2. District heating companies are mainly owned by the end-users community.

Is Denmark a frontrunner in solar district heating plants?

Even though Denmark has already been the dominated country in solar district heating plants, there are many research and developments to make Denmark as a frontrunner in solar district heating plants.



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