

**RES:**

- Solar thermal
- PV
- Biogas
- Heat pumps
- Biomass
- Absorption chiller
- Wind
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**Changes in the production and energy supply:**

- Process optimisation
- Process intensification
- Heat integration
- Storage
- Energy efficiency
- solar integration
- Biobased products
- Emerging technologies
- Cleaner production
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**Unit operations:**

- Cleaning
- Drying
- Evaporation and distillation
- Blanching
- Pasteurization
- Sterilization
- Cooking
- Other process heating
- General process heating
- Heating of production halls
- Cooling of production halls
- Cooling processes
- Melting
- Extraction
- Bleaching
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**Project name:** InSun - Industrial Process Heat by Solar Collectors

**Project description:**

Fleischwaren Berger GmbH is located in Sieghartskirchen producing 80-90 tons of meat and sausage products per day. At Berger, solar flat plate collectors with an overall area of ca. 1,067 m<sup>2</sup> are installed on a field next to the production facility including a storage tank (60 m<sup>3</sup>). The produced thermal energy is used for feed water preheating (30°C up to 95°C) for steam production for ham cooking and hot water preheating from about 40°C up to 70°C required for drying the air conditioning systems.



**Sector:** food & beverages

**Sub sector:** meat

**Country:** Austria

**Company scale:** Large ( >= 250 people and/or >= 50 mio€ turnover)

<u>Investigated Company:</u>  Fleischwaren Berger GmbH		<u>product output</u> 60-90 tons/day of meat and sausage products <b>tons/a</b> <u>product output</u> tons/a <u>product output</u> tons/a <u>product output</u> tons/a
<u>Employees:</u> 380		<u>Turn over:</u>
<u>Unit operations involved:</u>  Cleaning , Drying, Cooking ,other process heating , cooling of production halls and cooling processes.	<u>Temperature and Energy demand [°C, MWh/a]:</u>  70°C	<u>Equipment for heat/cooling generation:</u>  Steam is generated by two boilers feeding the low and the high pressure steam networks
<u>Process optimisation:</u>  -	<u>System optimisation:</u>  -	<u>Energy supply technology:</u>  Solar flat plate collectors (1,067 m <sup>2</sup> )
<u>Energy saved [%, MWh/a]:</u>  Reducing today's hot water production by approx. 475 MWh per year.	<u>Fossil energy saved [%, MWh/a]:</u>  Aprox. 26.9%, 542.9MWh/a	<u>CO2 emissions saved [%, t/a]:</u>  Reducing CO2 output by approx. 400 tons per year
<u>Link to further information:</u>  www.solid.at	<u>Co-ordinator, realising partner:</u>  S.O.L.I.D. Gesellschaft für Solarinstallation und Design mbH,	<u>Filling in person:</u>