



SARAL ENGINEERS LLP

(GROUP OF K G CORPORATION)

Energy concept of a case study (Food Industry)

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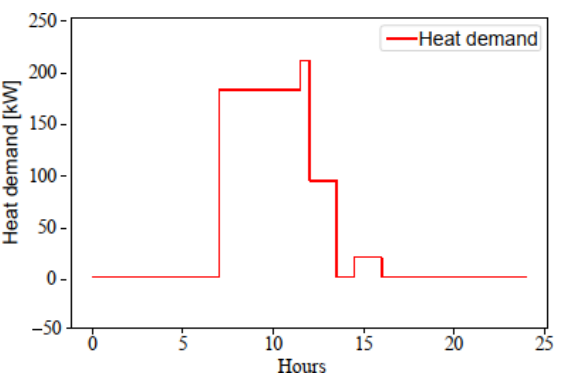
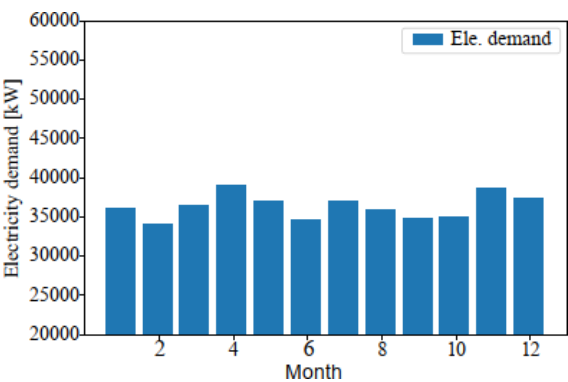
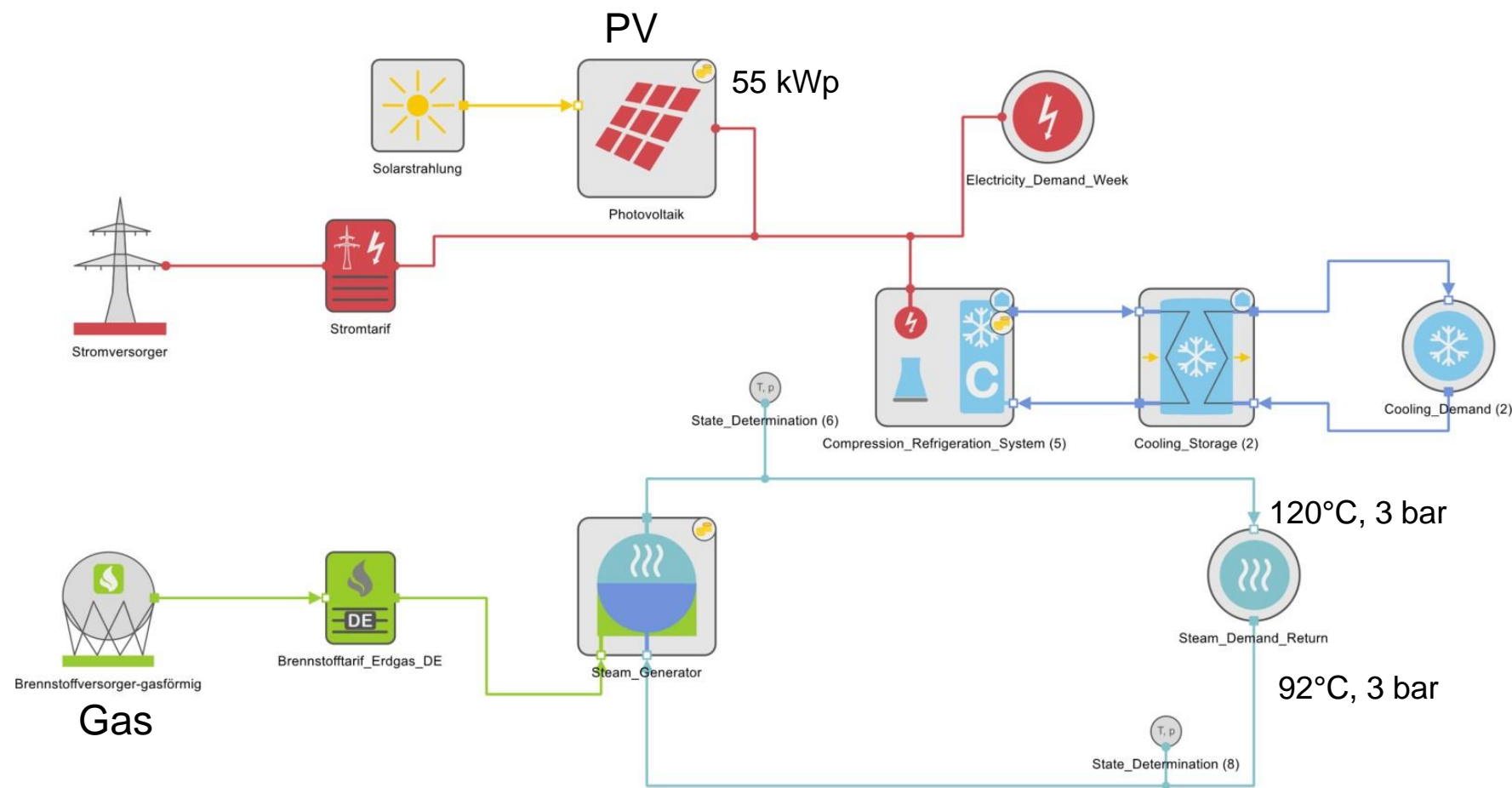
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Case study 1 – Juice and cream producing plant (before optimizing energy consumption)

Flow temperature – 120°C
Return temperature – 92°C

Operational cost (T€/a)	CO ₂ Emission (t/a)
161	225,7



Case study 1 – Juice and cream producing plant (after optimizing energy consumption)

Flow temperature – 95°C (Hot water)
Return temperature – 80°C ((Hot water)

Operational cost (T€/a)	CO ₂ Emission (t/a)
104.5	138

35% reduction

40% reduction

- ✓ Configuration of the energy supply system to be installed and operated in the demonstrator:

- Heat storage connected to the solar thermal facility for operation during the day.
- Heat source of the heat pump comes from heat storage.
- Electrical heater used to reach the process temperature in the working fluid by lower storage temperatures.
- Increase of the cold water tank
- Gas boiler has been taken out

New System configuration

