

HEATProfileX – The EXCEL-Tool for thermal load profile generation

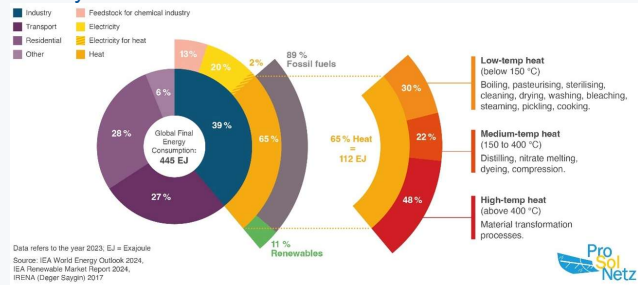
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8,760
hourly values
for one year

Turn a few weeks of measurements into a full-year thermal load profile

Context and challenge

Industrial heat is a major energy demand. Yet many industrial sites do not have enough metering to resolve thermal demand at hourly or minute scale.



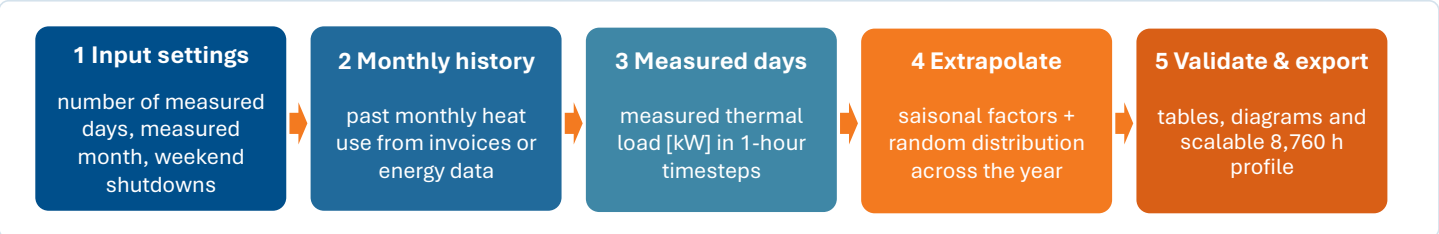
Tool objective

HeatProfileX creates a plausible full-year thermal load profile even when only limited short-term measurements are available.

- ✓ Enables data-driven decarbonisation concepts
- ✓ Provides realistic input for energy system design
- ✓ Reduces need for long-term measurement campaigns

**minimal measurement effort
+ realistic planning basis**

HeatProfileX workflow

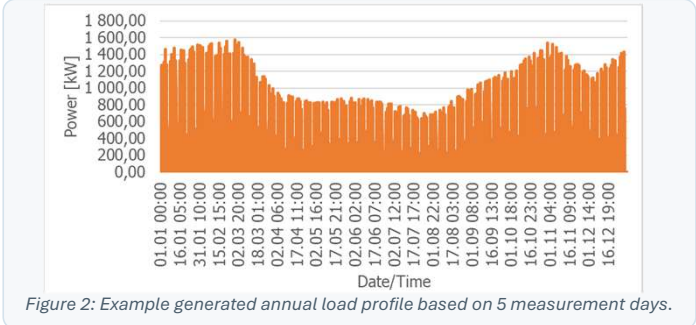


Extrapolation logic and safeguards

- 1 Measured operating days are distributed across the full year.
- 2 Historical monthly data are interpolated to daily values and converted into scaling factors.
- 3 Negative or atypical values are corrected automatically; an adjustment factor can scale the result.

few weeks of data x historical factors -> annual profile

Outputs and application



Take-away: HeatProfileX converts limited thermal measurements into an 8,760-value load profile for robust industrial decarbonisation planning.



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