New Estonian IDA ICE 5.1 Localization

IDA ICE 5.1

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EQUA Simulation Finland Oy

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Estonian localization templates

IDA ICE 5.1 Estonian localization packet includes

- Regulations (2019) building templates (no changes)
- Regulation (2025, in force 03/2025) building templates with new building code changes
- IDA ICE excel report for inputs and outputs showing the used building code version:
  - 2019 building code version reported in yellow backround
  - 2025 building code version reported in green backround
- Note: Remember to simulate your earlier made IDA ICE 4.8 models in 4.8 and start only new projects in IDA 5.1

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Modelled Estonian localization changes

With new building code templates(2025):

- All those code required changes from the previous code version(2019), which are present in the IDA building templates, are modelled
- Building templates(2025) have default system and building modelling explained shortly in the IDA ”Project data” annotations.
  - The list of modelled system defaults is explained with an example from ”Detached house” IDA building template
- The default values should be edited, if the modelled system or building is different from the one decribed in ”Project data”.
- Tabulated building code values are mainly used, but detailed values can be changed, when needed in the modelled building.

Additional modelled Estonian localization changes

With new building code templates(2025):

Ventilatsiooni välisõhu vooluhulgale ja energiaarvutuses kasutatava ruumitemperatuuri seadeväärtusele kehtivad nõuded

Hoone kasutamise otstarve	Välisõhu vooluhulk, l/(s·m²)	Kütmise seadeväärtus, °C	Jahutuse seadeväärtus, °C
Väikeelamu toatemperatuuriga pinnaga < 120 m²	0,5	21,5	26[2]
Väikeelamu toatemperatuuriga pinnaga ≥ 120 m² ja ridaelamu	0,42	21,5	26[2]
Korterelamu - püstitamisel	0,5	21,5	26[2]
Korterelamu - olulisel rekonstrueerimisel	0,5	21,5	27[2]
Kasarmu	1,5	21,5	26[2]

[2] Juhul, kui hoones on jahutussüsteem, kasutatakse energiaarvutuses jahutussüsteemi juhtimiseks väärtust 25 °C

Additional modelled Estonian localization changes

With new building code templates(2025):

- Some changes to the detailed houlry building usage profiles (both energy and overheating/cooling profiles)
- Overheating calculation for apartments – Windows can be opened only if the room temperature exceeds 22°C.
- Electric floor heating in apartment building pathrooms (comfort heating)
- New usage profile – apartment building's heated parking zone
- For VAV systems simulations, where airflow is controlled according to CO2 concentration, the max value in calculations is changed to 800ppm (1000ppm previously).
- Lighting power is changed for most building types (lower values due to LED becoming mainsrteam)
- The building's self-consumption of the electricity produced by PV system must be calculated on hourly basis

On-site generated and exported energy	On-site generated		Exported		Self-use fraction
	kWh/a	kWh/(a m^2)	kWh/a	kWh/(a m^2)	%
Solar thermal	-	-	-	-	-
CHP generated heat	-	-	-	-	-
Photovoltaic electricity	2965	296,5	2861	286,1	4
Wind generator	-	-	-	-	-
CHP el. generation	-	-	-	-	-
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