

Project information

Project type:	New passive house dwellings
Address:	Plutogatan 30-54, 31-59
End construction year:	2010
Building type:	Multi family houses
Dwellings:	36
Storeys:	1-2
Persons in building:	57
Gross area BTA:	4003 m ²
Net area:	3134 m ²
Heated area:	3134 m ²
Window/door area:	600 m ²
Total eligible costs:	131 €/m ²
Total costs:	1809 €/m ²

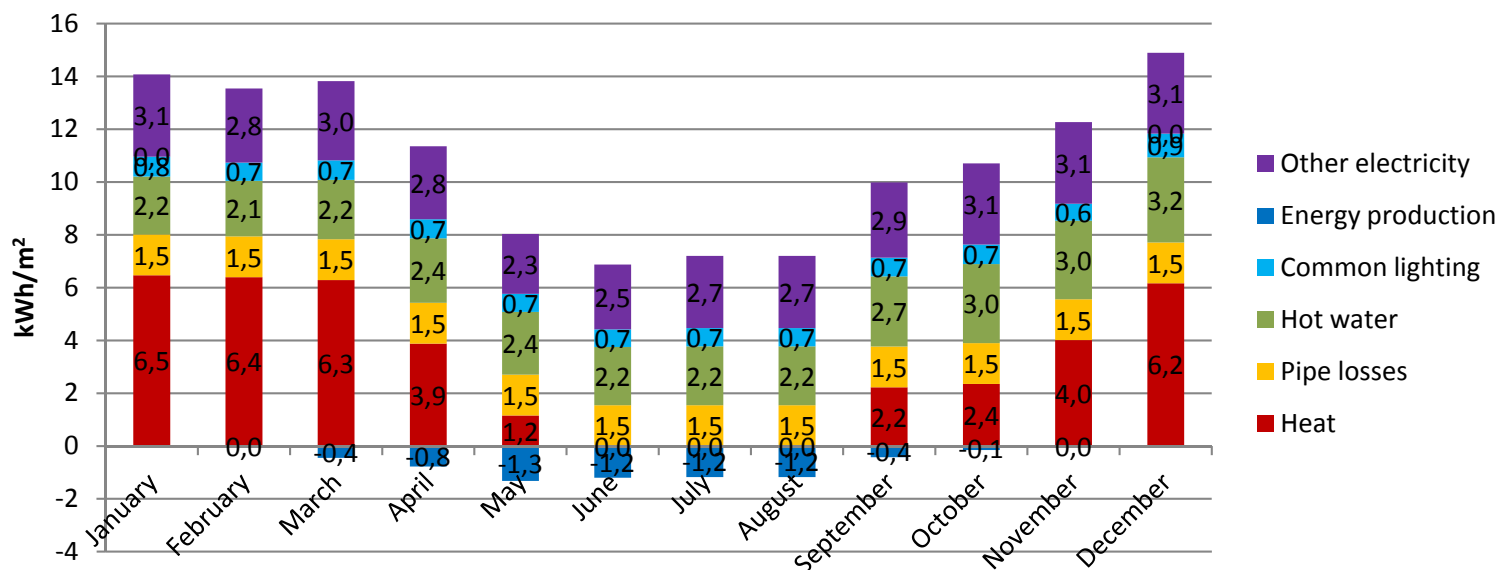
Special ECO-technologies applied:

- According passive housing regulations
- Optimisation of window type
- Passive solar
- Avoidance of thermal bridges
- Increased insulation
- Demand controlled ventilation
- Ventilation with heat recovery
- Balcony glazing
- Low energy domestic appliances
- Demand controlled circulation
- Solar heat
- Water saving fixtures



Energy consumption

Energy consumption 2012 - Degree day corrected

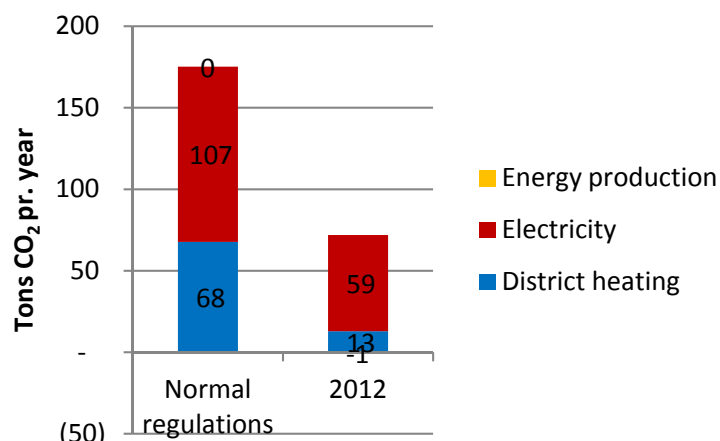


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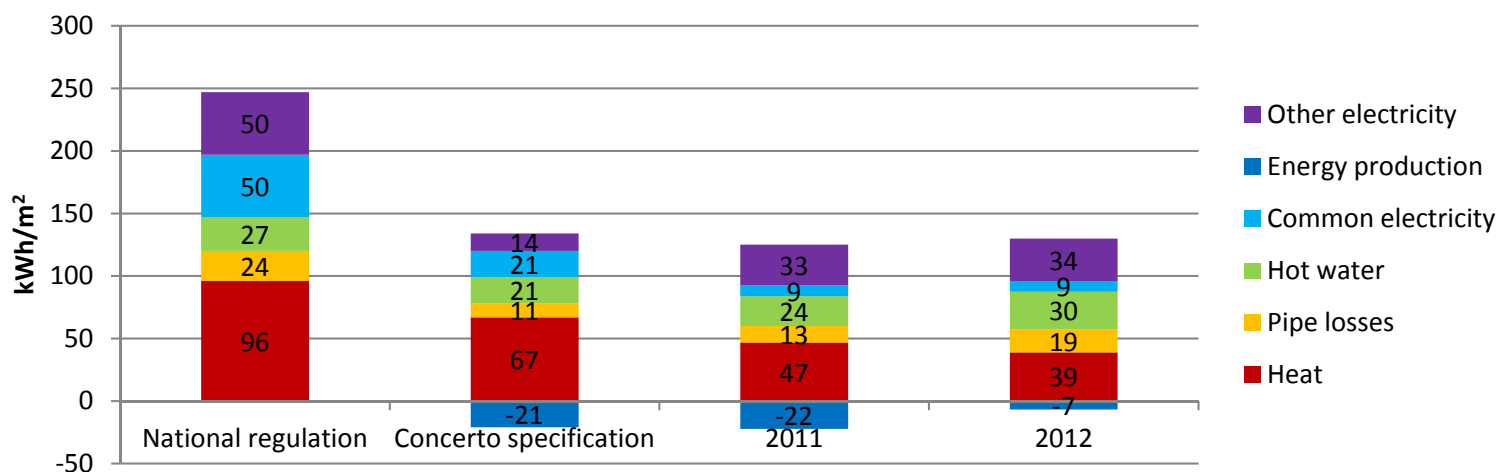
Lessons learned:

- The distribution loss between building are of same magnitude as the transmission loss of these passive houses
- Putting all meters in a gable shed gives good access for metering
- Solar heating supplies well to the DH-network in summer and compensates the heat consumption making the passive houses to active energy producing houses

CO₂ emission



Energy - specifications and consumption



Key figures

Heat trans.	Unit	Normal practice	Concerto spec.	Actual	Energy consumption	Unit	Normal practice	Concerto spec.	Actual 2011	Actual 2012
Outerwall	W/m²K	0.4	0.25	0.12	Heat	kWh/m²	96	67	47	39
Roof	W/m²K	0.25	0.2	0.07	Pipe losses	kWh/m²	24	11	13	19
Floor	W/m²K	0.3	0.25	0.09	Ventilation	kWh/m²	-	-	-	-
Windows	W/m²K	N.A.	1.1	0.9	Hot water	kWh/m²	27	21	24	30
Glazing	W/m²K	1.8	<1.1	-	Total heat	kWh/m²	147	99	84	87
Doors	W/m²K	-	-	0.6	Lighting	kWh/m²	50	35	9	9
Vent. rate	h ⁻¹	-	0.5	0.7	Other	kWh/m²	-	-	33	34
					Total elec.	kWh/m²	50	35	42	43
					Solar heat	kWh/m²	0	0	22	7
					Total	kWh/m²	197	134	103	123

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