

## **B. ANNEX: INPUT DATA FOR MEM**

In this Annex are reported the results of the main elaborations done in order to develop Municipal Energy Model and Energy Scout.

Elaboration on the EPCs of Senago are not reported for typographical reasons but are available on request in digital format.

### **Contents**

B.	Annex: Input Data for MEM .....	1
B.1	Energy data for Typology .....	2
B.2	Average floor area per dwelling .....	13
B.3	Average aging persons per dwelling .....	14
B.4	Families .....	15
B.5	Education .....	16
B.6	Tenants.....	17

B.1 ENERGY DATA FOR TYPOLOGY

TYPOLGY	wind_r	area_r	vol_r	h_level	U_env	U_roof	U_ground	U_wind	Eph	Eth	ETC	E_HEAT	E_DHW	E_H_DHW
E1-A-1	0.08	0.75	0.49	3.11	1.22	1.12	1.16	3.44	183.35	141.46	16.79	0.80	0.68	0.74
E1-B-1	0.12	0.8	0.64	3.19	1.26	1.43	1.38	4.14	186.03	133.25	21.68	0.72	0.47	0.66
E1-C-1	0.18	0.85	0.68	2.96	1.18	1.24	1.19	3.83	164.26	114.7	24.40	0.70	0.43	0.61
E1-D-1	0.11	0.84	0.58	2.79	1.01	1.06	1.11	3.43	137.01	96.39	19.04	0.72	0.56	0.66
E1-E-1	0.11	0.84	0.66	2.87	0.99	0.87	1.07	2.93	101.6	71.61	17.82	0.72	0.57	0.66
E1-F-1	0.13	0.85	0.7	3.6	0.3	0.28	0.4	1.84	54.31	41.34	37.76	0.93	1.03	0.87
E1-X-1	0.13	0.83	0.64	3.03	1.02	1.04	1.08	3.36	139.16	99.41	22.81	0.74	0.58	0.68
E1-A-2	0.09	0.82	0.67	3.04	1.25	1.25	1.4	3.43	180.98	131.18	19.54	0.74	0.56	0.69
E1-B-2	0.11	0.84	0.69	2.95	1.36	1.44	1.35	3.63	205.79	141.23	19.61	0.70	0.49	0.64
E1-C-2	0.14	0.85	0.76	2.96	1.3	1.38	1.29	4.26	171.64	126.92	22.86	0.76	0.35	0.58
E1-D-2	0.11	0.85	0.73	2.74	1.03	1.13	1.22	3.38	139.23	99.54	19.36	0.72	0.53	0.66
E1-E-2	0.12	0.84	0.72	2.74	0.83	0.84	1.02	3.01	115.8	83.22	21.56	0.73	0.57	0.69
E1-F-2	0.13	0.83	0.7	2.79	0.44	0.43	0.46	1.99	52.29	47.6	26.10	1.15	13.44	0.79
E1-X-2	0.13	0.84	0.73	2.86	1.05	1.1	1.13	3.45	142.02	104.13	21.87	0.79	2.15	0.65
E1-A-3	0.08	0.8	0.7	3.01	1.3	1.17	1.32	3.49	209.74	151.61	18.18	0.74	0.54	0.69
E1-B-3	0.09	0.83	0.72	2.97	1.33	1.24	1.3	3.68	208.79	152.04	20.55	0.74	0.50	0.67
E1-C-3	0.1	0.85	0.75	2.94	1.27	1.3	1.29	3.86	206.24	142.44	21.61	0.71	0.41	0.6
E1-D-3	0.1	0.84	0.73	2.71	1.05	1.09	1.18	3.33	156.62	113.24	18.79	0.73	0.55	0.67
E1-E-3	0.1	0.84	0.73	2.71	0.78	0.82	0.95	3.08	126.49	89.05	21.03	0.72	0.54	0.66
E1-F-3	0.11	0.81	0.68	2.73	0.34	0.32	0.37	1.78	45	42.08	24.67	1.09	0.75	0.84
E1-X-3	0.1	0.83	0.72	2.81	0.94	0.95	1.02	3.12	147.31	106.59	21.06	0.80	0.55	0.69
E1-A-4	0.07	0.8	0.69	3.02	1.23	1.17	1.31	3.51	243.7	178.55	18.96	0.75	0.55	0.7
E1-B-4	0.08	0.83	0.71	2.97	1.26	1.23	1.29	3.61	247.5	177.11	20.80	0.73	0.53	0.69
E1-C-4	0.08	0.84	0.74	2.92	1.21	1.25	1.3	3.72	231.86	165.24	20.26	0.72	0.49	0.65
E1-D-4	0.08	0.84	0.73	2.72	1.01	1.04	1.17	3.29	176.29	130.04	17.88	0.75	0.58	0.71
E1-E-4	0.08	0.83	0.73	2.68	0.78	0.78	0.95	3.05	141.41	102.62	19.76	0.74	0.57	0.69
E1-F-4	0.09	0.81	0.68	2.72	0.36	0.33	0.4	1.78	53.92	50.2	23.97	1.08	0.88	0.85
E1-X-4	0.08	0.83	0.71	2.79	0.88	0.88	0.98	2.99	160.85	119.35	20.41	0.82	0.63	0.73
E1-A-5	0.06	0.79	0.69	3	1.29	1.2	1.35	3.62	287.9	213.3	18.51	0.75	0.55	0.72
E1-B-5	0.06	0.81	0.71	2.98	1.27	1.22	1.33	3.61	286.9	208.46	19.41	0.74	0.53	0.7
E1-C-5	0.07	0.83	0.73	2.91	1.17	1.21	1.3	3.62	264.8	191.46	19.52	0.74	0.54	0.69
E1-D-5	0.07	0.84	0.73	2.74	0.99	1.04	1.18	3.27	204.41	150.7	18.48	0.75	0.58	0.71
E1-E-5	0.07	0.83	0.72	2.68	0.76	0.76	0.92	3.02	159.1	116.2	19.60	0.74	0.58	0.7
E1-F-5	0.07	0.81	0.67	2.72	0.36	0.34	0.41	1.8	63.45	57.64	23.73	1.03	0.79	0.85
E1-X-5	0.07	0.82	0.71	2.81	0.91	0.91	1.03	3.07	196.22	145.77	20.02	0.80	0.61	0.73
E1-A-6	0.06	0.78	0.69	2.98	1.29	1.2	1.33	3.58	328.86	242.91	18.22	0.75	0.54	0.71
E1-B-6	0.06	0.82	0.71	2.95	1.3	1.24	1.35	3.64	329.72	239.74	19.10	0.74	0.53	0.7
E1-C-6	0.06	0.83	0.72	2.92	1.2	1.19	1.32	3.56	298.96	219.69	19.64	0.75	0.55	0.71
E1-D-6	0.06	0.83	0.72	2.77	0.99	1.03	1.15	3.26	234.29	172.74	18.66	0.75	0.58	0.71

## Annex: Input Data for MEM

TYPOLGY	wind_r	area_r	vol_r	h_level	U_env	U_roof	U_ground	U_wind	Eph	Eth	ETC	E_HEAT	E_DHW	E_H_DHW
E1-E-6	0.07	0.83	0.72	2.7	0.77	0.79	0.93	3.01	181.25	132.66	20.84	0.74	0.56	0.7
E1-F-6	0.07	0.81	0.67	2.74	0.37	0.35	0.42	1.85	76.72	67.52	24.05	1.02	0.72	0.82
E1-X-6	0.06	0.82	0.71	2.83	0.97	0.96	1.07	3.13	236.87	175.83	20.15	0.79	0.58	0.72
E1-A-7	0.05	0.78	0.69	2.98	1.28	1.21	1.28	3.6	390.59	290.43	18.95	0.76	0.51	0.72
E1-B-7	0.05	0.81	0.71	3.01	1.32	1.27	1.3	3.71	416.29	303.81	19.19	0.74	0.49	0.71
E1-C-7	0.05	0.83	0.72	2.97	1.18	1.21	1.24	3.62	371.62	270.08	19.85	0.74	0.47	0.7
E1-D-7	0.05	0.84	0.73	2.84	0.96	1.05	1.11	3.33	290.01	213.82	21.04	0.75	0.51	0.71
E1-E-7	0.06	0.83	0.72	2.75	0.73	0.79	0.9	2.92	217.65	156.71	23.75	0.73	0.51	0.69
E1-F-7	0.06	0.82	0.69	2.76	0.41	0.39	0.46	1.97	99.05	84.64	25.37	0.97	0.71	0.81
E1-X-7	0.05	0.82	0.71	2.91	1.05	1.06	1.11	3.33	320.94	235.92	20.89	0.77	0.52	0.71
En1-A-1	0.144	0.862	0.664	3.92	1.49	0.92	1.14	3.52	38.17	43.97	4.00	1.07	0.30	0.92
En1-B-1	0.085	0.927	0.848	5.66	1.85	1.55	1.65	4.37	45.04	32.25	4.38	0.74	0.27	0.72
En1-C-1	0.106	0.942	0.835	6.18	1.8	1.42	1.49	4.74	48.69	33.52	5.26	0.73	0.22	0.68
En1-D-1	0.1	0.946	0.87	6.83	1.89	1.33	1.49	4.45	43.79	31.27	5.43	0.74	0.19	0.69
En1-E-1	0.1	0.943	0.863	7.13	1.43	1.09	1.35	3.87	35.05	26.29	5.68	0.80	0.18	0.75
En1-F-1	0.109	0.957	0.838	6.85	0.6	0.57	0.75	2.37	17.49	17.39	5.03	1.14	0.39	0.97
En1-X-1	0.102	0.944	0.856	6.82	1.52	1.15	1.34	3.98	37.5	27.87	5.43	0.82	0.22	0.75
En1-A-2	0.097	0.869	0.791	5.15	1.49	1.44	1.42	4.51	58.22	41.51	6.36	0.73	0.22	0.68
En1-B-2	0.105	0.934	0.84	5.37	1.82	1.45	1.47	4.94	57.98	39.82	6.67	0.70	0.17	0.67
En1-C-2	0.086	0.938	0.861	5.97	1.93	1.36	1.59	4.98	54.33	37.54	5.98	0.71	0.16	0.68
En1-D-2	0.084	0.946	0.869	6.11	1.88	1.33	1.5	4.7	49.69	35.41	6.12	0.74	0.19	0.7
En1-E-2	0.086	0.939	0.86	6.04	1.46	1.13	1.41	3.99	45.1	32.34	6.12	0.73	0.22	0.7
En1-F-2	0.101	0.926	0.816	5.69	0.61	0.52	0.71	2.33	21.25	21.16	6.10	1.39	0.58	1.07
En1-X-2	0.087	0.939	0.857	5.99	1.63	1.2	1.41	4.3	46.64	33.64	6.11	0.79	0.23	0.73
En1-A-3	0.087	0.841	0.747	3.96	1.43	1.38	1.48	4.21	64.25	47.83	5.82	0.79	0.35	0.71
En1-B-3	0.09	0.888	0.8	4.41	1.54	1.41	1.49	4.38	63.78	47.02	6.83	0.75	0.25	0.68
En1-C-3	0.097	0.916	0.825	4.79	1.77	1.43	1.53	4.95	66.89	47.39	7.28	0.74	0.20	0.69
En1-D-3	0.087	0.925	0.842	4.9	1.76	1.31	1.48	4.56	58.16	42.91	7.24	0.77	0.20	0.71
En1-E-3	0.113	0.921	0.814	4.62	1.35	1.1	1.33	3.78	53.1	38.97	8.63	0.75	0.28	0.69
En1-F-3	0.1	0.907	0.763	4.27	0.64	0.54	0.69	2.27	27.08	26.19	6.83	1.20	0.48	0.92
En1-X-3	0.097	0.915	0.819	4.69	1.56	1.24	1.4	4.29	57.58	42.37	7.46	0.79	0.93	0.71
En1-A-4	0.082	0.822	0.72	3.48	1.44	1.39	1.42	4.04	83.26	63.63	6.02	0.78	0.32	0.72
En1-B-4	0.09	0.876	0.774	3.82	1.46	1.43	1.45	4.55	75.04	57.13	7.25	0.79	0.28	0.75
En1-C-4	0.097	0.899	0.801	4.05	1.6	1.4	1.49	4.69	77.94	56.29	7.97	0.75	0.23	0.69
En1-D-4	0.094	0.906	0.807	3.98	1.6	1.27	1.4	4.38	70.47	51.75	8.43	0.81	0.28	0.75
En1-E-4	0.102	0.89	0.768	3.66	1.14	1.02	1.16	3.58	57.1	43.4	8.43	0.78	0.38	0.72
En1-F-4	0.099	0.887	0.749	3.8	0.53	0.49	0.64	2.26	30.1	28.58	8.24	1.35	0.40	0.96
En1-X-4	0.096	0.891	0.785	3.89	1.41	1.22	1.33	4.15	68.22	50.91	8.02	0.83	0.29	0.74
En1-A-5	0.075	0.82	0.717	3.32	1.33	1.34	1.45	4.1	85.84	65.82	6.21	0.78	0.37	0.73
En1-B-5	0.076	0.867	0.758	3.61	1.45	1.43	1.46	4.47	87.95	65.57	6.96	0.78	0.27	0.72

## Annex: Input Data for MEM

TYPOLOGY	wind_r	area_r	vol_r	h_level	U_env	U_roof	U_ground	U_wind	Eph	Eth	ETC	E_HEAT	E_DHW	E_H_DHW
En1-C-5	0.089	0.88	0.771	3.62	1.5	1.4	1.42	4.65	85.27	63.4	8.12	0.79	0.25	0.71
En1-D-5	0.095	0.887	0.779	3.47	1.45	1.25	1.35	4.13	79.07	59.2	8.86	0.77	0.29	0.7
En1-E-5	0.101	0.887	0.765	3.46	1.14	0.98	1.12	3.5	62.56	48.99	10.06	0.86	0.36	0.77
En1-F-5	0.097	0.857	0.712	3.25	0.45	0.4	0.52	1.99	26.47	27.65	8.71	1.26	0.62	0.95
En1-X-5	0.091	0.874	0.761	3.49	1.32	1.2	1.28	4.02	74.99	57.19	8.42	0.83	0.33	0.74
En1-A-6	0.071	0.803	0.701	3.29	1.39	1.45	1.42	4.17	98.56	76.31	6.70	0.80	0.37	0.76
En1-B-6	0.076	0.858	0.756	3.4	1.42	1.39	1.45	4.47	95.34	71.16	8.18	0.77	0.32	0.73
En1-C-6	0.086	0.874	0.757	3.33	1.45	1.31	1.42	4.57	96.26	71.16	8.43	0.78	0.28	0.71
En1-D-6	0.079	0.876	0.763	3.25	1.36	1.23	1.34	4.18	84.52	64.45	8.63	0.81	0.34	0.74
En1-E-6	0.088	0.88	0.755	3.16	1.1	0.96	1.1	3.56	71.16	54	9.38	0.80	0.39	0.73
En1-F-6	0.091	0.854	0.696	3.15	0.51	0.45	0.52	2.12	28.11	28.61	9.07	1.33	0.69	1.05
En1-X-6	0.083	0.865	0.746	3.26	1.26	1.16	1.26	4	82.18	62.67	8.52	0.84	0.37	0.76
En1-A-7	0.061	0.787	0.696	3.15	1.36	1.38	1.43	3.98	103.92	81.17	7.09	0.85	0.41	0.8
En1-B-7	0.064	0.838	0.733	3.22	1.52	1.38	1.53	4.3	113.97	84.89	8.21	0.78	0.31	0.72
En1-C-7	0.066	0.855	0.75	3.14	1.42	1.37	1.42	4.47	109.39	81.99	8.95	0.81	0.30	0.74
En1-D-7	0.071	0.868	0.76	3.03	1.44	1.28	1.39	4.22	104.33	79.99	9.46	0.81	0.34	0.73
En1-E-7	0.078	0.877	0.755	3	1.19	1.08	1.2	3.63	90.38	70.09	9.86	0.82	0.43	0.76
En1-F-7	0.067	0.836	0.7	2.99	0.63	0.62	0.73	2.42	43.92	40.49	9.77	1.25	0.33	0.79
En1-X-7	0.069	0.854	0.743	3.08	1.31	1.22	1.32	3.99	98.32	75.52	9.11	0.85	0.35	0.75
E2-A-1	0.132	0.791	0.521	3.2	1.2	1.6	1.65	3.32	30.08	25.39	3.25	0.85	0.40	0.59
E2-C-1	0.175	0.899	0.691	4.02	1.5	1.41	1.47	4.61	47.31	28.73	6.91	0.62	0.44	0.59
E2-D-1	0.249	0.911	0.795	4.15	1.15	0.96	1.23	3.37	36.86	24.52	9.82	0.68	0.25	0.54
E2-E-1	0.286	0.908	0.773	3.57	1.06	0.73	0.98	3.35	34.75	24.9	9.73	0.78	0.29	0.6
E2-F-1	0.31	0.909	0.736	3.71	0.39	0.31	0.52	1.7	11.49	11.42	8.25	1.10	0.60	0.79
E2-X-1	0.256	0.905	0.751	3.83	1.05	0.86	1.07	3.28	33.27	23.05	8.83	0.78	0.37	0.62
E2-A-2	0.101	0.761	0.69	3.87	1.23	1.32	1.39	4.66	50.4	34.75	5.79	0.69	0.23	0.65
E2-B-2	0.133	0.863	0.77	3.63	1.14	1.31	1.28	4.6	47.4	35.23	8.06	0.76	0.34	0.71
E2-C-2	0.153	0.899	0.791	3.93	1.4	1.2	1.46	3.92	54.76	34.44	8.01	0.66	0.25	0.56
E2-D-2	0.192	0.89	0.762	3.34	1.41	1.07	1.29	3.69	46.76	33.43	11.12	0.73	0.30	0.64
E2-E-2	0.157	0.897	0.757	3.41	1.1	0.9	1.15	3.18	40.66	29.26	9.17	0.77	0.29	0.65
E2-F-2	0.198	0.899	0.727	3.8	0.45	0.38	0.64	2.08	17.41	17.67	9.04	1.28	0.53	1.06
E2-X-2	0.172	0.89	0.757	3.56	1.13	0.93	1.16	3.34	41.04	29.62	9.43	0.83	0.33	0.71
E2-A-3	0.079	0.792	0.692	3.39	1.26	1.33	1.4	3.78	52.93	38.43	4.44	0.81	0.40	0.67
E2-B-3	0.117	0.83	0.709	3.35	1.21	1.31	1.36	3.47	51.33	36.63	7.87	0.73	0.18	0.6
E2-C-3	0.123	0.873	0.774	3.91	1.42	1.23	1.46	4.62	64.54	44.98	8.34	0.72	0.26	0.6
E2-D-3	0.117	0.885	0.789	3.37	1.42	1.09	1.28	3.83	51.9	37.39	9.73	0.73	0.31	0.62
E2-E-3	0.129	0.884	0.737	3.16	1.02	0.89	1.13	3.24	42.86	31.24	10.01	0.76	0.33	0.67
E2-F-3	0.117	0.877	0.706	3.29	0.47	0.5	0.54	2.05	20.64	19.96	7.07	1.30	37.44	0.91
E2-X-3	0.12	0.874	0.754	3.42	1.19	1.03	1.22	3.64	49.08	35.62	8.87	0.80	3.74	0.66
E2-A-4	0.079	0.796	0.708	3.3	1.34	1.3	1.25	3.54	64.68	47.06	6.14	0.74	0.36	0.7

## Annex: Input Data for MEM

TPOLOGY	wind_r	area_r	vol_r	h_level	U_env	U_roof	U_ground	U_wind	Eph	Eth	ETC	E_HEAT	E_DHW	E_H_DHW
E2-B-4	0.101	0.846	0.735	3.37	1.24	1.25	1.36	4.03	65.7	46.8	7.82	0.79	0.28	0.71
E2-C-4	0.11	0.87	0.762	3.54	1.43	1.33	1.44	4.15	71.62	50.52	8.10	0.75	0.27	0.64
E2-D-4	0.102	0.882	0.776	3.2	1.29	1.1	1.24	3.82	60.64	43.34	9.33	0.77	0.33	0.67
E2-E-4	0.11	0.873	0.742	3.14	1.08	1.02	1.15	3.41	51.76	39.46	9.17	0.78	0.46	0.71
E2-F-4	0.117	0.874	0.742	3.55	0.47	0.43	0.67	2.17	23.22	21.42	9.34	1.44	0.31	0.85
E2-X-4	0.106	0.869	0.754	3.31	1.18	1.08	1.21	3.61	57.48	42.1	8.73	0.84	0.34	0.7
E2-A-5	0.073	0.819	0.715	3.29	1.28	1.28	1.39	3.68	67.23	51.35	6.10	0.78	0.42	0.68
E2-B-5	0.073	0.834	0.72	3.23	1.36	1.46	1.4	3.89	74.28	55.83	6.39	0.81	0.37	0.77
E2-C-5	0.084	0.869	0.748	3.27	1.38	1.31	1.33	4.31	75.44	55.13	7.86	0.77	0.26	0.67
E2-D-5	0.093	0.869	0.758	3.07	1.31	1.16	1.25	3.78	68.76	50.71	9.07	0.78	0.32	0.69
E2-E-5	0.101	0.879	0.753	3.19	0.98	0.9	1.07	3.22	53.88	40.66	9.27	0.79	0.42	0.71
E2-F-5	0.092	0.846	0.697	2.99	0.45	0.47	0.57	2.04	24.14	22.17	8.60	1.09	0.44	0.76
E2-X-5	0.09	0.863	0.743	3.17	1.17	1.1	1.18	3.61	62.81	47.05	8.36	0.81	0.35	0.7
E2-A-6	0.075	0.789	0.694	3.31	1.29	1.26	1.28	3.69	80.45	60.5	7.51	0.78	0.42	0.71
E2-B-6	0.082	0.85	0.736	3.13	1.2	1.38	1.31	3.92	83.15	59.94	9.23	0.74	0.35	0.68
E2-C-6	0.091	0.867	0.745	3.14	1.38	1.26	1.38	4.17	86.41	61.27	8.46	0.73	0.32	0.67
E2-D-6	0.076	0.872	0.755	3.11	1.35	1.22	1.34	4.02	81.15	60.77	8.48	0.79	0.37	0.72
E2-E-6	0.079	0.876	0.75	3.01	0.99	0.93	1.02	3.34	62.59	46.18	9.12	0.77	0.42	0.71
E2-F-6	0.079	0.848	0.683	3.01	0.42	0.45	0.5	2.08	22.05	23.25	8.33	1.41	0.47	1.02
E2-X-6	0.08	0.859	0.735	3.1	1.14	1.08	1.16	3.61	70.47	52.71	8.55	0.85	0.39	0.75
E2-A-7	0.061	0.796	0.688	3.1	1.3	1.35	1.41	3.52	91.62	69.72	6.94	0.78	0.66	0.73
E2-B-7	0.049	0.832	0.724	3.04	1.46	1.23	1.51	3.98	106.75	77.06	6.18	0.76	0.32	0.68
E2-C-7	0.06	0.851	0.741	3.03	1.4	1.35	1.42	4.31	103.66	77.82	8.08	0.82	0.32	0.75
E2-D-7	0.061	0.869	0.751	2.98	1.3	1.2	1.33	3.96	95	72.04	8.45	0.80	0.32	0.72
E2-E-7	0.065	0.871	0.753	2.92	1.15	0.98	1.22	3.57	81.85	62.67	8.78	0.81	0.50	0.75
E2-F-7	0.059	0.834	0.7	2.93	0.54	0.5	0.72	2.28	37.73	32.34	7.63	1.36	0.31	0.76
E2-X-7	0.061	0.854	0.738	2.99	1.22	1.12	1.28	3.76	88.72	67.34	8.09	0.86	0.39	0.73
E3-C-1	0.135	0.895	0.818	3.2	0.8	1.3	0.9	3.1	53.3	32.4	5.30	0.70	0.40	0.5
E3-E-1	0.092	0.845	0.602	2.9	0.8	0.4	0.5	2.5	24.8	57.5	51.80	2.40	0.30	1.5
E3-F-1	0.06	0.974	0.808	3.6	0.5	0.7	0.5	2	15	9.6	5.40	0.70	0.50	0.6
E3-X-1	0.096	0.905	0.743	3.2	0.7	0.8	0.6	2.5	31.1	33.1	20.80	1.20	0.40	0.9
E3-A-2	0.112	0.85	0.753	3.6	1.7	1.3	1.6	3.5	50.4	29.6	7.80	0.60	0.30	0.4
E3-C-2	0.181	0.894	0.801	2.9	1	1.5	1.1	4	83.9	39.9	14.10	0.50	0.40	0.5
E3-D-2	0.072	0.868	0.719	2.7	1.2	1.4	1.1	2.8	37.7	24.8	18.00	0.70	0.30	0.7
E3-E-2	0.132	0.876	0.755	2.8	0.7	1.4	1.4	3.3	42.8	23	6.60	0.60	0.60	0.6
E3-F-2	0.129	0.876	0.727	3.4	0.3	0.5	0.5	2.1	9.8	14.2	7.30	4.70	0.40	1
E3-X-2	0.127	0.875	0.746	3.1	0.8	1	1	2.9	36.8	23.4	10.10	2.20	0.40	0.7
E3-C-3	0.099	0.893	0.827	3.4	1.2	1.6	0.7	4	64	36.7	9.50	0.60	0.50	0.6
E3-D-3	0.089	0.857	0.73	2.9	1.6	1.3	0.9	3	47.2	31.7	10.30	0.70	0.00	0.5
E3-E-3	0.032	0.982	0.82	3	0.3	1.7	0.9	3.1	120.8	79.6	6.40	0.70	0.00	0.6

## Annex: Input Data for MEM

TPOLOGY	wind_r	area_r	vol_r	h_level	U_env	U_roof	U_ground	U_wind	Eph	Eth	ETC	E_HEAT	E_DHW	E_H_DHW
E3-F-3	0.105	0.732	0.519	2.8	0.5	0.3	0.4	1.5	11.1	9.6	10.20	0.80	0.40	0.8
E3-X-3	0.094	0.862	0.752	3.2	1	1.3	0.7	3.3	55	33.5	9.50	0.70	0.40	0.6
E3-A-4	0.088	0.848	0.772	3	1.1	1.3	1.5	2.9	48.7	36.4	6.30	0.80	0.00	0.7
E3-B-4	0.075	0.95	0.87	3.4	0.7	0.9	1.7	3.6	40	29.5	9.70	0.70	0.00	0.7
E3-C-4	0.163	0.92	0.836	3.7	0.9	1.8	0.7	3.8	80.7	47.5	18.60	0.60	0.40	0.6
E3-D-4	0.12	0.94	0.8	4	1.2	1.8	1.5	3.4	63.3	44.2	13.40	0.70	0.00	0.6
E3-E-4	0.163	0.899	0.72	2.7	0.7	0.4	0.5	2.1	16.6	12.1	10.60	0.70	0.60	0.7
E3-X-4	0.126	0.918	0.817	3.4	0.9	1.3	1.1	3.4	56.3	36.8	13.20	0.70	0.20	0.7
E3-A-5	0.071	0.82	0.72	3.1	1.2	1	1.2	4	42.6	34.5	8.00	0.80	0.60	0.8
E3-B-5	0.067	0.907	0.826	4.1	1.4	1.4	1.3	5.2	53	45.2	9.30	0.90	0.10	0.7
E3-C-5	0.082	0.913	0.746	3.3	1.4	1.3	0.8	4.5	91.5	49.6	8.80	0.50	0.20	0.5
E3-E-5	0.092	0.887	0.689	3.3	0.9	0.9	0.8	3.3	33.4	26.6	8.80	0.80	0.30	0.6
E3-F-5	0.06	0.894	0.718	2.9	0.7	0.4	0.9	3.5	24.2	18.8	7.50	0.80	0.50	0.7
E3-X-5	0.081	0.882	0.72	3.3	1.1	1	0.9	3.9	46.6	33.2	8.60	0.70	0.30	0.6
E3-A-6	0.047	0.772	0.682	3.6	1.3	1.6	1.7	3.6	79.8	60.9	3.40	0.80	0.10	0.7
E3-B-6	0.062	0.885	0.857	3.8	1.4	2.3	1.8	3.9	75.1	58	9.10	0.80	0.50	0.7
E3-C-6	0.049	0.892	0.792	4.3	0.9	1.9	0.6	4.3	76.6	40.7	12.40	0.50	0.20	0.5
E3-D-6	0.082	0.93	0.816	3.3	2.7	1.1	0.7	4	71.3	54.1	14.50	0.80	0.10	0.8
E3-E-6	0.092	0.877	0.78	3.6	1.2	1.1	1.1	3.1	42	46.5	12.00	1.60	0.10	1.1
E3-X-6	0.072	0.88	0.789	3.6	1.6	1.5	1.1	3.7	65.4	51.5	11.10	1.00	0.20	0.8
E3-C-7	0.057	0.912	0.78	3.2	0.9	1.9	0.5	2.7	92.3	53.3	12.70	0.60	0.70	0.6
E3-D-7	0.08	0.881	0.743	2.9	0.6	0.7	1	4.9	95.4	67.1	12.00	0.70	0.10	0.7
E3-E-7	0.016	0.887	0.73	2.8	0.6	1.9	1.7	5.7	44.2	63	4.10	1.40	0.00	0.2
E3-F-7	0.047	0.815	0.655	2.9	0.2	0.3	0.3	1.9	26.2	19.4	8.20	0.90	0.40	0.6
E3-X-7	0.053	0.858	0.709	2.9	0.5	0.8	0.7	3.4	58	44.1	9.40	0.90	0.30	0.5
E4.2-F-1	0.027	0.953	0.952	9.8	0.2	0.6	0.6	2.8	28.4	40.7	0.40	1.40	0.30	1.4
E4.2-X-1	0.027	0.953	0.952	9.8	0.2	0.6	0.6	2.8	28.4	40.7	0.40	1.40	0.30	1.4
E4.2-A-2	0.054	0.842	0.76	4.1	1	1.6	0.9	3.5	124.3	89.4	12.20	0.70	0.00	0.7
E4.2-D-2	0.227	0.92	0.813	4.5	1.4	0.8	1.7	4.3	101	85.4	7.20	0.90	0.30	0.8
E4.2-F-2	0.123	0.885	0.798	6.8	0.3	0.3	0.4	1.9	15.7	24.1	8.60	2.20	0.30	1.8
E4.2-X-2	0.13	0.883	0.793	5.8	0.7	0.6	0.8	2.7	54.5	49.4	9.00	1.70	0.30	1.4
E4.2-A-3	0.054	0.829	0.754	5.4	1.1	1.4	1.6	4.3	59.9	53.4	7.90	0.90	0.20	0.9
E4.2-C-3	0.042	0.892	0.82	5.9	1.2	1.2	1	4.3	34.6	43.5	5.50	1.30	0.10	0.8
E4.2-F-3	0.141	0.905	0.773	4.6	0.3	0.3	0.4	2.1	14.4	30.6	8.70	2.00	0.20	1.7
E4.2-X-3	0.076	0.861	0.771	5.3	0.9	1	1.2	3.7	42.9	45.4	7.70	1.30	0.20	1.1
E4.2-A-4	0.051	0.78	0.695	4.1	1.1	1.4	1.4	4.1	78.9	70.2	2.70	1.00	0.10	0.7
E4.2-C-4	0.14	0.894	0.856	4.1	0.9	0.6	0.7	2	25.1	16.2	18.70	0.70	0.00	0.7
E4.2-D-4	0.137	0.906	0.797	3.4	1.6	1.5	1.5	3	142.8	83.7	8.10	0.70	0.20	0.6
E4.2-E-4	0.082	0.895	0.74	3.2	0.6	1.2	0.7	3.5	110.6	95.5	7.40	0.90	0.20	0.8
E4.2-F-4	0.076	0.89	0.802	4	0.2	0.3	0.5	1.5	46.5	62.4	5.10	2.30	0.10	1.6

## Annex: Input Data for MEM

TPOLOGY	wind_r	area_r	vol_r	h_level	U_env	U_roof	U_ground	U_wind	Eph	Eth	ETC	E_HEAT	E_DHW	E_H_DHW
E4.2-X-4	0.09	0.874	0.775	3.8	0.8	0.9	0.9	2.6	79.6	69.5	6.90	1.40	0.20	1
E4.2-C-5	0.06	0.938	0.873	4.4	2.2	2.8	1.3	5.1	175.6	133.4	4.80	0.80	0.40	0.8
E4.2-D-5	0.161	0.92	0.83	3.7	3.3	2	1.8	3.4	186.3	143.7	12.10	0.80	0.80	0.8
E4.2-E-5	0.07	0.875	0.752	3.6	0.7	0.8	0.9	3.5	120.6	96	5.00	0.80	0.30	0.8
E4.2-F-5	0.047	0.836	0.774	4.4	0.3	0.3	0.7	2.1	20	22.1	6.30	1.20	0.30	1.1
E4.2-X-5	0.068	0.869	0.788	4.1	1	1	1	3	85.4	69.7	6.50	1.00	0.40	0.9
E4.2-A-6	0.073	0.811	0.727	4	1.3	2.2	1.4	5	122.8	102.1	9.70	0.90	1.00	0.9
E4.2-C-6	0.029	0.85	0.739	3	1.5	1.4	1.7	5.7	165.5	124.7	2.50	0.80	0.00	0.6
E4.2-E-6	0.014	0.856	0.747	9.3	1.2	1.7	1.5	2.5	23.8	94.7	0.80	4.00	1.40	3.9
E4.2-F-6	0.102	0.883	0.753	3.5	0.3	0.2	0.3	1.5	10.9	14.4	13.20	1.60	1.50	1.2
E4.2-X-6	0.071	0.854	0.743	4.4	0.9	1.2	1	3.2	66.8	66.7	8.90	1.60	1.20	1.4
E4.2-B-7	0.067	0.81	0.698	3	0.3	0.3	0.1	1.7	64.1	85.8	5.50	1.30	0.90	1.3
E4.2-E-7	0.059	0.874	0.749	3	1.7	1.8	1.5	3.8	182.5	152.7	1.50	0.80	0.10	0.7
E4.2-F-7	0.05	0.785	0.698	3.5	0.4	0.3	0.4	2.1	24.8	22.9	4.80	0.90	1.00	0.9
E4.2-X-7	0.059	0.823	0.715	3.2	0.8	0.8	0.7	2.5	90.5	87.2	3.90	1.00	0.70	1
E4.2-C-1	0.027	0.953	0.952	9.8	0.2	0.6	0.6	2.8	28.4	40.7	0.40	1.40	0.30	1.4
E4.2-C-7	0.059	0.823	0.715	3.2	0.8	0.8	0.7	2.5	90.5	87.2	3.90	1.00	0.70	1
E4.2-C-2	0.13	0.883	0.793	5.8	0.7	0.6	0.8	2.7	54.5	49.4	9.00	1.70	0.30	1.4
E4.2-B-3	0.076	0.861	0.771	5.3	0.9	1	1.2	3.7	42.9	45.4	7.70	1.30	0.20	1.1
E4.2-A-5	0.068	0.869	0.788	4.1	1	1	1	3	85.4	69.7	6.50	1.00	0.40	0.9
E4.2-A-7	0.059	0.823	0.715	3.2	0.8	0.8	0.7	2.5	90.5	87.2	3.90	1.00	0.70	1
E5-B-1	0.092	0.91	0.854	4.4	1.2	1.4	1.3	4.2	48.8	33.8	5.00	0.70	0.20	0.7
E5-C-1	0.097	0.985	0.862	4.6	1.9	1.3	1.5	4.7	48.6	36.6	5.10	0.90	0.10	0.8
E5-D-1	0.1	0.921	0.845	5.6	1.5	1.3	1.5	4.5	48.6	36.2	5.80	0.80	0.30	0.8
E5-E-1	0.111	0.944	0.859	6.4	1.5	1	1.3	3.5	43.3	28	7.50	0.70	0.30	0.7
E5-F-1	0.074	0.96	0.815	6.5	0.5	0.4	0.7	2.1	14.8	20.7	5.10	1.80	0.40	1.4
E5-X-1	0.098	0.943	0.846	5.9	1.3	1	1.3	3.7	40.5	30.6	6.10	1.00	0.30	0.8
E5-A-2	0.104	0.837	0.752	4.5	1.5	1.6	1.5	4.9	67.1	47.1	6.50	0.70	0.40	0.6
E5-B-2	0.102	0.911	0.788	4.1	1.4	1.8	1.2	4.8	66	48.5	6.20	0.70	0.20	0.7
E5-C-2	0.104	0.92	0.832	5.1	1.6	1.3	1.5	4.7	58.6	40.6	7.00	0.70	0.20	0.7
E5-D-2	0.1	0.934	0.843	5.2	1.9	1.2	1.5	4.6	63.7	45.2	7.00	0.80	0.40	0.7
E5-E-2	0.081	0.916	0.816	5.2	1.1	0.9	1.2	3.6	47.3	31	5.80	0.70	0.40	0.7
E5-F-2	0.059	0.94	0.834	5.7	0.5	0.5	0.6	2.3	20.9	21.9	5.80	1.50	1.20	1.3
E5-X-2	0.088	0.925	0.829	5.2	1.3	1	1.2	3.9	50.3	36.1	6.40	0.90	0.50	0.8
E5-A-3	0.103	0.859	0.753	3.5	1.5	1.5	1.5	4.2	70	50	6.40	0.80	0.40	0.7
E5-B-3	0.1	0.869	0.776	3.8	1.4	1.4	1.4	4.5	66.2	47.5	7.10	0.70	0.40	0.7
E5-C-3	0.122	0.902	0.792	4.2	1.5	1.5	1.4	4.8	74.9	54.1	7.50	0.80	0.20	0.7
E5-D-3	0.095	0.911	0.807	4.3	1.5	1.2	1.4	4.4	65.3	48.4	6.90	0.80	0.20	0.7
E5-E-3	0.161	0.922	0.796	4	1.2	0.9	1.1	3.3	57.6	41.8	10.40	0.80	0.30	0.7
E5-F-3	0.099	0.948	0.767	4.3	0.5	0.4	0.5	2	24.8	24	7.00	1.20	0.20	0.9

## Annex: Input Data for MEM

TYPOLOGY	wind_r	area_r	vol_r	h_level	U_env	U_roof	U_ground	U_wind	Eph	Eth	ETC	E_HEAT	E_DHW	E_H_DHW
E5-X-3	0.118	0.908	0.789	4.1	1.3	1.2	1.3	4	62.2	45.9	7.80	0.80	0.30	0.7
E5-A-4	0.09	0.817	0.713	3.4	1.5	1.5	1.5	4.4	82.4	60.5	6.20	0.80	0.30	0.7
E5-B-4	0.1	0.856	0.751	3.7	1.4	1.4	1.3	4.3	77.4	58.6	7.20	0.80	0.30	0.7
E5-C-4	0.127	0.874	0.779	3.7	1.5	1.5	1.4	4.8	86.9	63.6	9.40	0.80	0.20	0.7
E5-D-4	0.113	0.889	0.777	3.6	1.4	1.3	1.3	4.4	79.7	58	9.00	0.70	0.30	0.7
E5-E-4	0.111	0.891	0.759	3.6	1	0.9	1	3.7	65	47.1	8.60	0.70	0.30	0.7
E5-F-4	0.094	0.883	0.732	3.8	0.5	0.6	0.5	2.2	29.8	28.9	7.90	1.30	0.20	0.9
E5-X-4	0.112	0.873	0.761	3.6	1.3	1.3	1.2	4.2	74.6	55.4	8.50	0.80	0.30	0.7
E5-A-5	0.086	0.812	0.709	3.2	1.3	1.4	1.5	4.3	88.6	67	6.80	0.80	0.30	0.8
E5-B-5	0.087	0.841	0.733	3.4	1.4	1.4	1.4	4.6	86.7	68.9	8.10	0.90	0.30	0.8
E5-C-5	0.11	0.871	0.758	3.6	1.4	1.4	1.3	4.7	92.9	68.1	9.10	0.80	0.30	0.7
E5-D-5	0.116	0.886	0.776	3.4	1.4	1.2	1.2	4.3	86.3	64.4	9.60	0.80	0.30	0.7
E5-E-5	0.116	0.892	0.771	3.4	1.1	0.9	1.1	3.6	68.6	52.9	10.40	0.90	0.30	0.8
E5-F-5	0.125	0.877	0.715	3.2	0.4	0.4	0.4	2	29.9	31.4	10.70	1.30	0.60	1
E5-X-5	0.108	0.866	0.75	3.4	1.3	1.2	1.2	4.2	81.5	61.9	9.10	0.80	0.30	0.8
E5-A-6	0.078	0.79	0.683	3.2	1.4	1.6	1.4	4.4	102.1	77	6.80	0.80	0.40	0.8
E5-B-6	0.084	0.849	0.742	3.4	1.3	1.4	1.4	4.4	92.8	69.4	9.30	0.80	0.30	0.8
E5-C-6	0.104	0.869	0.759	3.4	1.4	1.4	1.4	4.8	104.8	77.7	10.00	0.80	0.30	0.7
E5-D-6	0.106	0.877	0.764	3.3	1.1	1.1	1.2	4.2	85.1	64.8	10.40	0.80	0.40	0.8
E5-E-6	0.107	0.876	0.758	3.2	1.1	1	1.1	3.6	75.4	57.5	10.40	0.80	0.30	0.7
E5-F-6	0.157	0.87	0.719	3.4	0.7	0.5	0.5	2.2	32.8	34.1	12.70	1.40	0.50	1.1
E5-X-6	0.102	0.858	0.744	3.3	1.2	1.2	1.3	4.2	90	68.2	9.80	0.80	0.30	0.8
E5-A-7	0.063	0.783	0.688	3.2	1.4	1.4	1.4	4.1	107.4	83.1	7.10	0.90	0.30	0.8
E5-B-7	0.069	0.824	0.722	3.3	1.5	1.4	1.5	4.3	117.9	90	8.40	0.80	0.30	0.7
E5-C-7	0.086	0.847	0.756	3.3	1.3	1.3	1.4	4.4	114.7	85.3	10.90	0.80	0.30	0.7
E5-D-7	0.101	0.861	0.755	3.2	1.3	1.1	1.2	4.2	103.9	80.9	11.90	0.80	0.30	0.7
E5-E-7	0.112	0.866	0.752	3.2	1	1	1	3.6	95.6	71.6	12.90	0.80	0.40	0.7
E5-F-7	0.116	0.857	0.705	3.1	0.6	0.6	0.6	2.2	42.4	42.6	20.70	1.20	0.30	1
E5-X-7	0.088	0.839	0.736	3.2	1.3	1.2	1.3	4.1	105.2	80.4	10.90	0.80	0.30	0.8
E6-C-1	0.115	0.917	0.854	5.6	1.2	1.4	1.2	5.7	75.7	57.9	2.90	0.80	0.00	0.3
E6-E-1	0.089	0.896	0.804	3.3	0.9	0.7	0.9	3.5	121	69.4	2.70	0.60	0.40	0.6
E6-X-1	0.102	0.906	0.829	4.5	1	1	1	4.6	98.3	63.7	2.80	0.70	0.20	0.5
E6-C-2	0.111	0.878	0.827	5.7	1.3	1.7	1.5	5	73.2	66.2	5.10	0.90	0.20	0.8
E6-D-2	0.053	0.913	0.86	6.6	2.1	1.2	1.3	5	79	58.1	3.30	0.70	0.40	0.7
E6-E-2	0.087	0.957	0.856	5.5	1	0.8	1.2	3.6	70.3	61.4	6.90	0.90	0.30	0.8
E6-F-2	0.08	0.931	0.773	5.7	0.3	0.3	0.4	1.8	21.3	32	5.00	1.70	0.60	1.4
E6-X-2	0.08	0.928	0.834	5.9	1.2	0.9	1	3.8	61.9	54.5	5.30	1.00	0.40	0.9
E6-A-3	0.035	0.84	0.8	4.9	1.7	0.7	1.8	3.8	31.6	45.4	1.30	1.40	0.60	1.3
E6-B-3	0.067	0.894	0.89	7	2.2	0.8	1.8	3.9	49.4	39.5	0.90	0.80	0.60	0.8
E6-C-3	0.069	0.919	0.822	4.9	1.7	1.3	1.4	3.9	99.5	72.5	5.10	0.70	0.30	0.7



## Annex: Input Data for MEM

TPOLOGY	wind_r	area_r	vol_r	h_level	U_env	U_roof	U_ground	U_wind	Eph	Eth	ETC	E_HEAT	E_DHW	E_H_DHW
E6-D-3	0.087	0.913	0.821	5.1	1.8	0.8	1.3	4.9	99.2	70.5	4.60	0.70	0.00	0.5
E6-E-3	0.101	0.875	0.816	4.2	0.9	1.1	0.8	3.1	90.5	74.5	5.70	0.90	0.40	0.8
E6-F-3	0.076	0.894	0.784	4.5	0.4	0.4	0.5	2	46.2	45.4	4.90	1.10	0.20	1
E6-X-3	0.079	0.895	0.815	4.7	1.3	1	1.1	3.5	81	65	4.70	0.90	0.30	0.8
E6-A-4	0.063	0.806	0.83	3.5	1.3	1.2	1.4	3.8	158.8	138.8	3.80	0.90	0.30	0.8
E6-B-4	0.113	0.89	0.782	3.3	1.2	1.3	1.3	3.4	99.4	91.1	4.40	0.90	0.70	0.9
E6-C-4	0.072	0.919	0.815	4	1.4	1.1	1.4	4.1	106.1	95.2	5.30	1.30	0.40	1.2
E6-D-4	0.065	0.853	0.775	4.5	1	1.2	1.3	5	82.4	61.3	5.30	0.70	0.30	0.7
E6-E-4	0.076	0.898	0.744	3.1	1.2	0.7	1.4	3.2	123.4	117.4	4.90	1.00	0.50	0.9
E6-F-4	0.112	0.873	0.797	4	0.4	0.3	0.5	1.8	13.6	17.8	6.30	1.30	0.90	1.2
E6-X-4	0.076	0.89	0.8	3.9	1.2	1	1.3	3.9	99.8	88.1	5.20	1.10	0.40	1
E6-A-5	0.05	0.872	0.775	4	0.9	1.4	1.7	5	100.2	82.5	3.70	0.80	0.00	0.8
E6-C-5	0.079	0.881	0.777	3.5	1.3	1	1.1	3.2	88.9	82.3	4.40	1.10	0.40	1
E6-D-5	0.044	0.93	0.819	3.6	1.1	0.9	1.3	3.7	120.1	112.2	4.10	1.10	0.40	1
E6-E-5	0.119	0.901	0.752	3.5	1.5	1.6	1.4	3.4	121.6	92.6	12.60	0.80	0.40	0.5
E6-F-5	0.056	0.885	0.753	3.7	0.4	0.3	0.3	2	28.3	25.8	4.60	0.90	1.20	0.9
E6-X-5	0.069	0.898	0.779	3.6	1	0.9	1.1	3.2	90.2	79.8	5.70	1.00	0.60	0.9
E6-A-6	0.066	0.828	0.741	2.7	0.3	0.7	0.3	2.2	71.4	63.8	4.60	0.90	0.50	0.8
E6-C-6	0.07	0.837	0.715	3.4	1.7	1.2	1.1	4.8	85.4	89.1	5.10	1.10	0.20	0.7
E6-D-6	0.075	0.865	0.676	2.9	1.6	1.2	1	3.2	101.4	84.5	7.60	0.80	0.40	0.7
E6-E-6	0.119	0.875	0.754	3.2	0.9	0.9	1.2	2.9	147.7	106.1	9.20	0.70	0.50	0.7
E6-F-6	0.039	0.848	0.649	3.4	0.4	0.2	0.4	1.7	27	32	6.90	1.00	0.90	1
E6-X-6	0.08	0.858	0.708	3.2	1	0.8	0.9	3	95.6	79.4	7.40	0.90	0.50	0.8
E6-B-7	0.05	0.949	0.816	3.1	1.2	1.6	1.5	2.8	76.6	65.7	7.60	0.90	0.90	0.9
E6-C-7	0.096	0.863	0.755	2.9	1.2	1.2	1.4	4.4	173.8	124.2	11.80	0.70	0.30	0.5
E6-D-7	0.06	0.864	0.732	3	1.6	1.4	1.4	4.9	165.2	133.6	8.00	0.80	0.50	0.7
E6-E-7	0.057	0.868	0.746	3.2	0.9	0.9	0.9	3.9	143.2	108.2	6.40	0.80	0.60	0.8
E6-F-7	0.047	0.825	0.705	2.6	0.3	0.4	0.7	2.7	65	51.9	7.60	0.90	0.50	0.6
E6-X-7	0.062	0.862	0.737	3	1.2	1.1	1.2	4.2	143.9	112	8.00	0.80	0.50	0.7
E6.2-C-1	0.115	0.917	0.854	5.6	1.2	1.4	1.2	5.7	75.7	57.9	2.90	0.80	0.00	0.3
E6.2-E-1	0.089	0.896	0.804	3.3	0.9	0.7	0.9	3.5	121	69.4	2.70	0.60	0.40	0.6
E6.2-X-1	0.102	0.906	0.829	4.5	1	1	1	4.6	98.3	63.7	2.80	0.70	0.20	0.5
E6.2-C-2	0.088	0.908	0.854	8.5	1.6	1.8	1.5	5.7	33.4	25.7	6.80	0.80	0.20	0.7
E6.2-D-2	0.053	0.913	0.86	6.6	2.1	1.2	1.3	5	79	58.1	3.30	0.70	0.40	0.7
E6.2-E-2	0.079	0.949	0.86	5.6	1.1	0.9	1.3	3.8	72.2	60.8	5.90	0.90	0.40	0.8
E6.2-F-2	0.08	0.931	0.773	5.7	0.3	0.3	0.4	1.8	21.3	32	5.00	1.70	0.60	1.4
E6.2-X-2	0.072	0.931	0.837	6.1	1.2	0.9	1	3.7	58.9	50.5	4.90	1.00	0.50	0.9
E6.2-A-3	0.035	0.84	0.8	4.9	1.7	0.7	1.8	3.8	31.6	45.4	1.30	1.40	0.60	1.3
E6.2-B-3	0.067	0.894	0.89	7	2.2	0.8	1.8	3.9	49.4	39.5	0.90	0.80	0.60	0.8
E6.2-C-3	0.072	0.936	0.835	5.1	1.8	1.3	1.4	4	94.5	68	5.40	0.70	0.30	0.7

## Annex: Input Data for MEM

TYPOLGY	wind_r	area_r	vol_r	h_level	U_env	U_roof	U_ground	U_wind	Eph	Eth	ETC	E_HEAT	E_DHW	E_H_DHW
E6.2-D-3	0.092	0.91	0.816	5.8	2.4	1	1.6	5.4	105.6	69.8	5.30	0.70	0.00	0.4
E6.2-E-3	0.09	0.906	0.83	4	0.9	1.4	0.9	3.3	87.1	61.6	6.40	0.80	0.20	0.6
E6.2-F-3	0.079	0.882	0.788	4.8	0.4	0.4	0.5	2.1	50.3	46.6	4.40	1.00	0.30	0.8
E6.2-X-3	0.074	0.907	0.826	5	1.5	1.1	1.3	3.8	79.7	60.3	4.80	0.80	0.30	0.7
E6.2-A-4	0.049	0.85	0.759	3.1	1.3	1.7	1.3	3.8	137.2	105.1	1.20	0.80	0.60	0.8
E6.2-B-4	0.113	0.89	0.782	3.3	1.2	1.3	1.3	3.4	99.4	91.1	4.40	0.90	0.70	0.9
E6.2-C-4	0.079	0.916	0.829	4.2	1.4	1.1	1.7	4.2	96.6	79.7	5.20	0.90	0.40	0.8
E6.2-D-4	0.043	0.7	0.7	6.7	0.9	0.7	0.7	5.7	60.7	31.8	2.90	0.50	0.00	0.6
E6.2-E-4	0.075	0.898	0.816	3.2	1.8	0.8	2	3.8	127.7	92.4	2.30	0.70	0.60	0.7
E6.2-F-4	0.104	0.858	0.787	3.9	0.3	0.3	0.7	1.5	10.2	13.7	9.60	1.30	1.20	1.3
E6.2-X-4	0.078	0.889	0.807	4.1	1.3	1	1.5	4	93.2	75.1	4.80	0.90	0.50	0.8
E6.2-A-5	0.05	0.872	0.775	4	0.9	1.4	1.7	5	100.2	82.5	3.70	0.80	0.00	0.8
E6.2-C-5	0.079	0.881	0.777	3.5	1.3	1	1.1	3.2	88.9	82.3	4.40	1.10	0.40	1
E6.2-D-5	0.063	0.943	0.857	4	1.8	1.1	1.8	5.7	123.8	90.9	6.80	0.70	0.30	0.7
E6.2-E-5	0.143	0.911	0.76	3.5	1.9	1.8	1.8	3.4	122.1	90.5	16.70	0.80	0.40	0.4
E6.2-X-5	0.088	0.893	0.782	3.6	1.4	1.2	1.4	3.7	101.4	85.1	7.30	1.00	0.40	0.8
E6.2-C-6	0.07	0.837	0.715	3.4	1.7	1.2	1.1	4.8	85.4	89.1	5.10	1.10	0.20	0.7
E6.2-D-6	0.019	0.842	0.7	2.7	1.2	0.3	1.5	3.1	109.4	90.3	2.00	0.80	0.40	0.7
E6.2-E-6	0.085	0.896	0.778	3.3	0.7	1	0.7	2.4	125.6	80	5.50	0.60	0.60	0.6
E6.2-X-6	0.063	0.85	0.725	3.2	1.4	1	1.1	3.9	98.2	87.5	4.60	1.00	0.40	0.7
E6.2-C-7	0.188	0.886	0.89	3.1	1.1	0.7	1.8	3.2	146.2	107.7	23.20	0.70	0.60	0.7
E6.2-D-7	0.125	0.847	0.709	3	1.5	0.9	1.5	3.8	121.1	94.9	10.90	0.80	0.60	0.8
E6.2-X-7	0.156	0.867	0.799	3.1	1.3	0.8	1.6	3.5	133.7	101.3	17.10	0.80	0.60	0.8
E7-C-1	0.246	0.73	0.744	3.8	1.1	1.4	1.5	3.8	84.3	46.6	9.00	0.60	0.00	0.3
E7-X-1	0.246	0.73	0.744	3.8	1.1	1.4	1.5	3.8	84.3	46.6	9.00	0.60	0.00	0.3
E7-A-2	0.095	0.898	0.813	4.5	1	1.6	1.1	4	78.9	58.4	4.00	0.70	0.50	0.7
E7-B-2	0.174	0.764	0.733	3.8	1.3	1.3	0.8	3.7	63.3	36.4	7.40	0.60	0.00	0.6
E7-C-2	0.119	0.914	0.759	3.3	1.1	1	1.2	3.5	53.5	41.8	5.80	0.80	0.20	0.6
E7-D-2	0.113	0.907	0.819	4.6	1.1	1.6	1.5	3.8	43.2	35.8	5.70	0.90	0.30	0.8
E7-E-2	0.111	0.864	0.647	3	0.8	0.8	0.8	2.6	33.4	34.6	6.70	1.40	0.70	1
E7-F-2	0.147	0.869	0.772	4.3	0.3	0.3	0.3	1.5	12.1	11.3	8.10	0.90	0.70	0.9
E7-X-2	0.128	0.882	0.766	3.9	0.9	1	1	3.1	44.2	34.3	6.40	0.90	0.40	0.7
E7-A-3	0.103	0.82	0.736	3.6	1.3	1.2	1.7	4.2	78.8	55.1	5.40	0.70	0.30	0.7
E7-B-3	0.112	0.775	0.742	3.6	1.3	1.3	0.7	4.3	82.7	47.9	6.40	0.60	0.10	0.6
E7-C-3	0.117	0.9	0.78	3.4	1.2	1.3	1.3	4.4	73.8	52.3	6.80	0.70	0.60	0.7
E7-D-3	0.099	0.896	0.808	3.8	1.2	1.2	1.1	3.7	55.3	42.7	7.30	0.80	0.20	0.7
E7-E-3	0.127	0.92	0.794	3.8	0.7	1.2	1.6	3.9	64.5	53.7	8.40	0.80	0.70	0.7
E7-F-3	0.118	0.884	0.734	3.2	0.6	0.5	0.5	2.1	19.2	31.7	8.80	1.90	0.40	1.2
E7-X-3	0.114	0.886	0.771	3.5	1.1	1.1	1.1	3.9	62.1	47.4	7.20	0.90	0.50	0.8
E7-A-4	0.083	0.869	0.764	3.6	1.1	1.1	1.3	3.7	74.1	55.8	4.80	0.80	0.30	0.7

## Annex: Input Data for MEM

TYPOLGY	wind_r	area_r	vol_r	h_level	U_env	U_roof	U_ground	U_wind	Eph	Eth	ETC	E_HEAT	E_DHW	E_H_DHW
E7-B-4	0.091	0.902	0.75	3.1	1.4	1.1	1.4	3.2	73.5	55	3.50	0.80	0.40	0.8
E7-C-4	0.119	0.893	0.78	3.6	1.3	1.3	1.2	4.3	84.6	62.3	9.40	0.80	0.40	0.7
E7-D-4	0.06	0.86	0.787	3.7	0.9	0.8	1.1	4.1	66.1	49.9	3.90	0.80	0.40	0.8
E7-E-4	0.108	0.904	0.704	3.8	1.1	0.4	1.4	3.6	59.9	42.5	5.00	0.70	0.40	0.7
E7-F-4	0.075	0.901	0.712	3.9	0.4	0.3	0.4	1.8	27.2	27.7	5.90	1.10	2.40	1
E7-X-4	0.095	0.89	0.757	3.6	1	0.9	1	3.5	65.8	50.5	6.70	0.80	0.90	0.8
E7-A-5	0.111	1	0.7	4.8	1.1	1.8	1.4	3.2	62.6	46.5	10.80	0.70	0.50	0.7
E7-B-5	0.071	0.84	0.738	3.4	1.3	1.3	1.3	4.1	105	72	6.30	0.70	0.20	0.7
E7-C-5	0.099	0.883	0.78	3.7	1.3	1.1	1.4	4.9	91.4	64	7.50	0.70	0.40	0.6
E7-D-5	0.093	0.886	0.76	3.2	1	1	1.1	4	82.9	62	6.50	0.80	0.40	0.7
E7-E-5	0.111	0.917	0.806	4	1.3	0.7	0.8	3.8	66.9	62.4	7.90	1.00	0.40	0.7
E7-F-5	0.089	0.793	0.678	3.5	0.3	0.2	0.3	1.6	18.8	21.5	7.10	1.30	1.60	1.1
E7-X-5	0.093	0.858	0.743	3.6	1	0.8	1	3.6	68.1	51.4	7.20	0.90	0.70	0.8
E7-A-6	0.03	0.854	0.754	3.4	1.6	1.4	1.7	4.1	206	155.5	2.60	0.80	0.20	0.7
E7-B-6	0.106	0.757	0.732	3.5	1.5	2	1.8	3.6	104.9	78.3	9.10	0.80	0.50	0.7
E7-C-6	0.085	0.909	0.75	3.1	1.1	1.2	1.2	3.8	95.8	71.3	7.80	0.80	0.40	0.7
E7-D-6	0.058	0.898	0.752	3	0.9	0.7	1.2	3.8	81.2	61.8	4.30	0.80	0.50	0.7
E7-E-6	0.104	0.892	0.772	3.1	0.6	0.8	1	3.1	75.5	55.9	10.50	0.80	0.40	0.7
E7-F-6	0.079	0.88	0.67	3.2	0.3	0.2	0.3	1.9	21.8	32.1	7.40	1.90	0.60	1.6
E7-X-6	0.082	0.896	0.743	3.1	0.9	1	1.1	3.5	84.3	65	7.60	0.90	0.50	0.8
E7-C-7	0.081	0.849	0.732	3.1	0.9	1.1	0.8	3.3	88.8	62.7	9.00	0.70	0.20	0.6
E7-D-7	0.103	0.91	0.796	2.9	1.5	1	1.4	4.8	118.7	87.4	12.50	0.80	0.10	0.7
E7-E-7	0.071	0.888	0.754	3	0.9	1.1	1.2	3.4	107.6	82.6	8.60	0.80	0.40	0.6
E7-F-7	0.088	0.857	0.702	2.9	0.3	0.5	0.5	2.6	49.3	44.9	8.90	1.00	0.50	0.9
E7-X-7	0.086	0.869	0.74	3	0.9	0.9	0.9	3.4	86.8	65.6	9.60	0.80	0.30	0.7
E8-A-1	0.17	0.924	0.775	4.6	2	0.5	1	4.5	38.3	30.2	6.20	0.80	0.20	0.8
E8-B-1	0.083	0.932	0.846	6	2	1.6	1.7	4.4	44	31.8	4.20	0.80	0.30	0.7
E8-C-1	0.089	0.948	0.866	7.2	1.9	1.5	1.5	4.8	45.6	32.6	4.50	0.70	0.20	0.7
E8-D-1	0.077	0.958	0.888	7.6	2.1	1.4	1.5	4.6	43.6	31	4.70	0.70	0.20	0.7
E8-E-1	0.074	0.948	0.879	7.8	1.5	1.2	1.4	4	33.5	25.8	4.50	0.80	0.10	0.8
E8-F-1	0.068	0.969	0.876	8	0.7	0.7	0.9	2.7	20.3	17.6	4.20	0.90	0.30	0.9
E8-X-1	0.077	0.953	0.879	7.6	1.7	1.2	1.4	4.2	37	27.5	4.50	0.80	0.20	0.8
E8-A-2	0.09	0.931	0.854	6.2	1.7	1.5	1.5	4.6	50.3	34.7	6.70	0.70	0.20	0.7
E8-B-2	0.093	0.97	0.874	6.1	2.1	1.5	1.6	5.1	57.1	38.3	6.30	0.70	0.10	0.7
E8-C-2	0.074	0.947	0.879	6.5	2.1	1.4	1.7	5.2	52.4	36.1	5.60	0.70	0.10	0.7
E8-D-2	0.07	0.954	0.884	6.5	1.9	1.4	1.5	4.8	47.9	34	5.50	0.70	0.20	0.7
E8-E-2	0.077	0.948	0.88	6.5	1.6	1.2	1.5	4.2	44.9	32.5	5.80	0.70	0.20	0.7
E8-F-2	0.08	0.937	0.855	6.6	0.8	0.6	0.9	2.5	24	20.6	4.90	1.00	0.30	0.9
E8-X-2	0.074	0.95	0.879	6.5	1.8	1.3	1.5	4.5	46.4	33.1	5.60	0.70	0.20	0.7
E8-A-3	0.078	0.892	0.807	4.9	1.8	1.5	1.6	4.9	61.3	43.8	6.00	0.70	0.20	0.7

## Annex: Input Data for MEM

TYPOLGY	wind_r	area_r	vol_r	h_level	U_env	U_roof	U_ground	U_wind	Eph	Eth	ETC	E_HEAT	E_DHW	E_H_DHW
E8-B-3	0.08	0.917	0.834	5	1.7	1.5	1.6	4.6	62.3	45.6	6.80	0.70	0.20	0.7
E8-C-3	0.082	0.935	0.854	5.4	2	1.5	1.6	5.2	63.1	44.3	7.00	0.70	0.10	0.7
E8-D-3	0.078	0.94	0.865	5.5	1.9	1.4	1.6	4.8	57.9	42.9	6.60	0.80	0.20	0.7
E8-E-3	0.086	0.938	0.854	5.5	1.6	1.3	1.5	4.2	55.3	40.6	7.40	0.80	0.20	0.7
E8-F-3	0.088	0.922	0.827	5.2	1	0.8	1.1	2.9	35	28.3	6.30	0.90	0.30	0.8
E8-X-3	0.081	0.936	0.855	5.4	1.8	1.4	1.6	4.7	58	42.3	6.90	0.80	0.20	0.7
E8-A-4	0.066	0.875	0.725	3.9	1.7	1.4	1.5	4.3	64.6	48.7	6.30	0.80	0.20	0.7
E8-B-4	0.072	0.916	0.825	4.4	1.8	1.6	1.7	5.3	71.1	52.4	7.40	0.70	0.20	0.7
E8-C-4	0.074	0.923	0.829	4.5	1.8	1.4	1.6	4.9	70.5	50.1	7.10	0.70	0.20	0.7
E8-D-4	0.081	0.928	0.838	4.6	1.9	1.4	1.5	4.7	69.4	52	7.80	0.90	0.20	0.8
E8-E-4	0.078	0.905	0.801	4.2	1.3	1.1	1.3	3.8	54.6	41.9	7.30	0.80	0.30	0.8
E8-F-4	0.074	0.901	0.785	4.2	0.8	0.6	0.8	2.7	34.6	28.4	7.00	1.20	0.30	1.1
E8-X-4	0.077	0.919	0.823	4.5	1.7	1.3	1.5	4.6	66	48.6	7.40	0.80	0.20	0.8
E8-A-5	0.048	0.828	0.744	3.5	1.5	1.3	1.5	4.4	73.5	51.7	4.90	0.70	0.30	0.7
E8-B-5	0.067	0.908	0.8	4.1	1.6	1.4	1.6	4.9	78.9	55.1	6.80	0.70	0.20	0.7
E8-C-5	0.072	0.896	0.8	3.9	1.7	1.5	1.6	4.9	79.8	58.1	7.50	0.80	0.20	0.7
E8-D-5	0.082	0.901	0.803	3.9	1.7	1.4	1.5	4.4	76.1	56.7	8.00	0.80	0.20	0.7
E8-E-5	0.091	0.893	0.777	3.8	1.4	1.1	1.3	3.8	61.9	49.1	10.00	0.90	0.30	0.8
E8-F-5	0.076	0.871	0.734	3.3	0.7	0.5	0.8	2.3	31	30.1	6.60	1.20	0.40	0.9
E8-X-5	0.077	0.894	0.792	3.9	1.6	1.3	1.5	4.4	73.2	54.4	7.90	0.80	0.30	0.7
E8-A-6	0.059	0.859	0.754	3.5	1.6	1.5	1.6	4.7	80.9	60.5	6.40	0.80	0.20	0.8
E8-B-6	0.062	0.883	0.793	3.7	1.7	1.4	1.6	5	94.2	68.1	6.10	0.70	0.20	0.7
E8-C-6	0.061	0.88	0.772	3.5	1.6	1.3	1.5	4.8	87.8	62.3	6.80	0.70	0.30	0.7
E8-D-6	0.064	0.874	0.772	3.4	1.6	1.4	1.5	4.5	80.9	61.3	7.80	0.80	0.30	0.8
E8-E-6	0.081	0.886	0.755	3.2	1.3	1	1.2	3.9	68.8	53	9.10	0.80	0.40	0.7
E8-F-6	0.067	0.845	0.69	3.1	0.6	0.5	0.7	2.3	29.3	25.5	7.30	1.00	0.40	0.8
E8-X-6	0.067	0.877	0.763	3.4	1.5	1.2	1.4	4.3	77.5	57.6	7.60	0.80	0.30	0.7
E8-A-7	0.056	0.82	0.733	3.1	1.4	1.3	1.6	4.3	89.3	71.3	6.80	0.90	0.30	0.8
E8-B-7	0.075	0.865	0.765	3.3	1.7	1.5	1.7	4.8	110	78.8	10.60	0.70	0.30	0.7
E8-C-7	0.056	0.862	0.751	3.1	1.6	1.4	1.5	4.7	103.2	77.4	8.40	0.80	0.30	0.8
E8-D-7	0.065	0.869	0.773	3	1.7	1.4	1.5	4.4	103.9	79.5	9.30	0.80	0.40	0.8
E8-E-7	0.073	0.889	0.76	3	1.4	1.2	1.3	3.7	87.6	68.5	9.60	0.80	0.40	0.8
E8-F-7	0.05	0.825	0.698	3	0.9	0.9	0.9	2.7	52.5	47.9	6.50	1.10	0.30	0.7
E8-X-7	0.063	0.865	0.755	3.1	1.5	1.4	1.4	4.3	95.8	73.5	8.80	0.80	0.30	0.8

## Annex: Input Data for MEM

---

### B.2 AVERAGE FLOOR AREA PER DWELLING

Data from ISTAT 2011.

<b>SEZ2011</b>	<b>av_floor_area</b>
152060000001	81.59
152060000002	81.40
152060000003	98.85
152060000004	85.17
152060000005	95.43
152060000006	85.54
152060000007	82.18
152060000008	91.98
152060000009	89.67
152060000010	87.19
152060000011	94.15
152060000012	111.91
152060000013	103.50
152060000014	81.60
152060000015	92.23
152060000016	89.33
152060000017	84.29
152060000018	83.35
152060000019	82.23
152060000020	83.58
152060000021	87.59
152060000022	75.04
152060000023	83.84
152060000024	86.29
152060000025	150.83
152060000026	59.84
152060000027	82.19
152060000032	87.71
152060000033	69.89
152060000034	89.23
152060000035	86.17
152060000036	102.61
152060000037	109.33
152060000038	56.67
152060000039	111.50
152060000040	88.50
152060000041	89.23
152068888888	89.23

## Annex: Input Data for MEM

---

### B.3 AVERAGE AGING PERSONS PER DWELLING

Data from ISTAT 2011.

SEZ2011	P27	P28	P29	A2	av_aging
152060000001	59	42	103	399	0.511278
152060000002	53	60	142	607	0.420099
152060000003	49	46	45	264	0.530303
152060000004	51	74	123	446	0.556054
152060000005	26	36	68	284	0.457746
152060000006	49	62	92	418	0.485646
152060000007	40	47	91	306	0.581699
152060000008	55	65	90	445	0.47191
152060000009	78	83	115	588	0.469388
152060000010	3	3	7	37	0.351351
152060000011	71	63	50	381	0.48294
152060000012	6	3	10	66	0.287879
152060000013	0	0	2	8	0.25
152060000014	37	42	75	313	0.492013
152060000015	16	14	10	124	0.322581
152060000016	36	36	50	282	0.432624
152060000017	34	33	52	258	0.46124
152060000018	94	112	153	708	0.507062
152060000019	40	52	105	364	0.541209
152060000020	23	40	92	378	0.410053
152060000021	57	64	49	438	0.388128
152060000022	34	21	44	214	0.462617
152060000023	70	41	66	743	0.238223
152060000024	33	15	29	238	0.323529
152060000025	0	1	1	6	0.333333
152060000026	2	1	4	55	0.127273
152060000027	5	6	5	48	0.333333
152060000032	6	7	11	48	0.5
152060000033	0	0	0	18	0
152060000034					0.5
152060000035	2	1	1	12	0.333333
152060000036	5	5	5	23	0.652174
152060000037	2	0	2	6	0.666667
152060000038	0	0	1	3	0.333333
152060000039	2	0	0	2	1
152060000040	1	0	3	6	0.666667
152060000041	0	0	0	0	0.439155
152068888888	0	0	0	0	0.439155

## Annex: Input Data for MEM

---

### B.4 FAMILIES

Data from ISTAT 2011.

SEZ2011	n_owner_fam	dwellings	av_owner_fam
152060000001	264	399	0.66
152060000002	442	607	0.73
152060000003	225	264	0.85
152060000004	391	446	0.88
152060000005	181	284	0.64
152060000006	331	418	0.79
152060000007	227	306	0.74
152060000008	377	445	0.85
152060000009	484	588	0.82
152060000010	26	37	0.7
152060000011	360	381	0.94
152060000012	59	66	0.89
152060000013	2	8	0.25
152060000014	252	313	0.81
152060000015	107	124	0.86
152060000016	240	282	0.85
152060000017	231	258	0.9
152060000018	590	708	0.83
152060000019	288	364	0.79
152060000020	289	378	0.76
152060000021	340	438	0.78
152060000022	182	214	0.85
152060000023	664	743	0.89
152060000024	191	238	0.8
152060000025	4	6	0.67
152060000026	41	55	0.75
152060000027	31	48	0.65
152060000032	43	48	0.9
152060000033	17	18	0.94
152060000034			0.757142857
152060000035	11	12	0.92
152060000036	11	23	0.48
152060000037	5	6	0.83
152060000038	0	3	0
152060000039	1	2	0.5
152060000040	6	6	1
152060000041	0	0	0.757142857
152068888888	0	0	0.757142857

## Annex: Input Data for MEM

---

### B.5 EDUCATION

Data from ISTAT 2011.

SEZ2011	P>24anni	Pop_LowEdu_ass	A2	av_LowEdu
152060000001	687	608	399	1.52
152060000002	1043	932	607	1.54
152060000003	484	428	264	1.62
152060000004	801	744	446	1.67
152060000005	503	441	284	1.55
152060000006	735	662	418	1.58
152060000007	547	506	306	1.65
152060000008	833	763	445	1.71
152060000009	1083	989	588	1.68
152060000010	75	72	37	1.95
152060000011	785	727	381	1.91
152060000012	138	119	66	1.8
152060000013	12	10	8	1.25
152060000014	592	547	313	1.75
152060000015	238	219	124	1.77
152060000016	543	491	282	1.74
152060000017	486	465	258	1.8
152060000018	1298	1202	708	1.7
152060000019	693	656	364	1.8
152060000020	662	615	378	1.63
152060000021	783	697	438	1.59
152060000022	393	373	214	1.74
152060000023	1435	1343	743	1.81
152060000024	455	423	238	1.78
152060000025	10	9	6	1.5
152060000026	89	78	55	1.42
152060000027	92	87	48	1.81
152060000032	88	81	48	1.69
152060000033	29	23	18	1.28
152060000034				1.811143
152060000035	27	26	12	2.17
152060000036	43	38	23	1.65
152060000037	17	17	6	2.83
152060000038	6	5	3	1.67
152060000039	4	4	2	2
152060000040	31	29	6	4.83
152060000041	0	0	0	1.811143
152068888888	2	1	0	1.811143



## Annex: Input Data for MEM

---

### B.6 TENANTS

Data from ISTAT 2011.

<b>SEZ2011</b>	<b>FamNowner</b>	<b>av_tenant</b>
152060000001	139	0.35
152060000002	168	0.28
152060000003	39	0.15
152060000004	55	0.12
152060000005	106	0.37
152060000006	89	0.21
152060000007	80	0.26
152060000008	71	0.16
152060000009	108	0.18
152060000010	12	0.32
152060000011	22	0.06
152060000012	7	0.11
152060000013	6	0.75
152060000014	64	0.2
152060000015	18	0.15
152060000016	44	0.16
152060000017	28	0.11
152060000018	120	0.17
152060000019	77	0.21
152060000020	94	0.25
152060000021	98	0.22
152060000022	36	0.17
152060000023	82	0.11
152060000024	48	0.2
152060000025	2	0.33
152060000026	14	0.25
152060000027	18	0.38
152060000032	5	0.1
152060000033	1	0.06
152060000034		0.295143
152060000035	1	0.08
152060000036	12	0.52
152060000037	1	0.17
152060000038	3	1
152060000039	1	0.5
152060000040	10	1.67
152060000041	0	0.295143
152068888888	0	0.295143