

Supplementary Materials: File 1

Case A

Hour (h)	Eprod	Esc
[h]	[kWh]	[kWh]
0	0,00	325,66
1	0,00	1095,00
2	0,00	1095,00
3	0,00	1095,00
4	50,54	1095,00
5	1687,27	1095,00
6	5619,96	1095,00
7	11481,48	1095,00
8	18478,47	5300,10
9	24831,37	5300,10
10	30019,80	5300,10
11	33186,92	5300,10
12	33271,30	5300,10
13	30236,30	5300,10
14	25123,65	4416,75
15	18829,22	0,00
16	11826,82	1563,00
17	5876,66	5511,75
18	1834,99	5511,75
19	74,46	1095,00
20	0,00	1095,00
21	0,00	1095,00
22	0,00	1095,00
23	0,00	1095,00

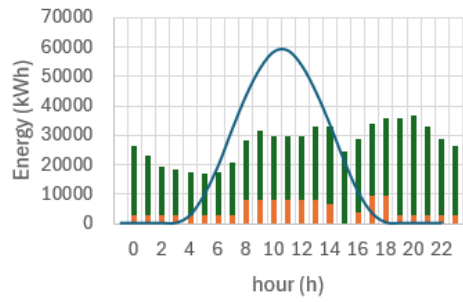
Hours of energy produced and self-consumed by the hub in a year

Hours	Hourly needs of a household in one year [kWh]																			
0	13095,20	13784,42	14550,22	15406,12	16369,00	17460,27	18707,43	20146,46	21825,33	23809,46	26190,40	29100,45	32738,00	37414,86	43650,67	52380,80	65476,00	87301,34	130952,01	261904,01
1	11356,38	11954,08	12618,20	13360,45	14195,48	15141,84	16223,40	17471,35	18927,30	20647,96	22712,76	25236,40	28390,95	32446,80	37854,60	45425,52	56781,90	75709,20	113563,80	227127,61
2	9183,77	9667,13	10204,19	10804,43	11479,71	12245,03	13119,67	14128,88	15306,28	16697,76	18367,54	20408,38	22959,42	26239,34	30612,57	36735,08	45918,85	61225,13	91837,70	183675,39
3	8823,87	9288,29	9804,30	10381,03	11029,84	11765,16	12605,53	13575,19	14706,45	16043,41	17647,75	19608,61	22059,68	25211,07	29412,91	35295,49	44119,36	58825,82	88238,73	176477,46
4	8138,99	8567,35	9043,32	9575,28	10173,73	10851,98	11627,12	12521,52	13564,98	14798,16	16277,97	18086,63	20347,46	23254,24	27129,95	32555,94	40694,93	54259,90	81389,85	162779,71
5	8012,87	8434,60	8903,19	9426,91	10016,09	10683,83	11446,96	12327,50	13354,79	14568,86	16025,75	17806,39	20032,18	22893,93	26709,58	32051,50	40064,37	53419,16	80128,74	160257,48
6	8169,25	8599,21	9076,94	9610,88	10211,56	10892,33	11670,35	12568,07	13615,41	14853,18	16338,49	18153,88	20423,12	23340,70	27230,82	32676,99	40846,23	54461,64	81692,47	163384,93
7	10136,36	10669,86	11262,63	11925,13	12670,45	13515,15	14480,52	15594,40	16893,94	18429,75	20272,73	22525,25	25340,91	28961,04	33787,88	40545,45	50681,81	67575,75	101363,63	202727,26
8	11323,73	11919,71	12581,92	13322,03	14154,66	15098,30	16176,75	17421,12	18872,88	20588,59	22647,45	25163,84	28309,32	32353,50	37745,75	45294,91	56618,63	75491,51	113237,26	226474,53
9	13048,75	13735,53	14498,61	15351,47	16310,94	17398,34	18641,08	20075,01	21747,92	23725,01	26097,51	28997,23	32621,88	37282,15	43495,84	52195,01	65243,77	86991,69	130487,53	260975,07
10	11947,25	12576,05	13274,72	14055,58	14934,06	15929,66	17067,50	18380,38	19912,08	21722,27	23894,49	26549,44	29868,12	34134,99	39824,16	47788,99	59736,24	79648,31	119472,47	238944,94
11	12026,07	12659,02	13362,30	14148,31	15032,58	16034,76	17180,10	18501,64	20043,44	21865,58	24052,13	26724,59	30065,17	34360,19	40086,89	48104,27	60130,33	80173,78	120260,67	240521,34
12	12050,70	12684,95	13389,66	14177,29	15063,37	16067,60	17215,28	18539,54	20084,50	21910,36	24101,40	26779,33	30126,74	34430,57	40168,99	48202,79	60253,49	80337,99	120506,98	241013,96
13	13767,14	14491,73	15296,82	16196,63	17208,92	18356,19	19667,34	21180,21	22945,23	25031,16	27534,28	30593,64	34417,85	39334,68	45890,46	55068,56	68835,70	91780,93	137671,39	275342,78
14	14715,09	15489,57	16350,10	17311,87	18393,86	19620,12	21021,55	22638,60	24525,15	26754,70	29430,18	32700,19	36787,72	42043,11	49050,29	58860,35	73575,44	98100,58	147150,88	294301,75
15	13777,13	14502,24	15307,92	16208,39	17221,42	18369,51	19681,62	21195,59	22961,89	25049,33	27554,26	30615,85	34442,83	39363,24	45923,77	55108,53	68885,66	91847,55	137771,32	275542,65
16	14132,95	14876,79	15703,27	16627,00	17666,18	18843,93	20189,92	21743,00	23554,91	25696,27	28265,89	31406,55	35332,37	40379,85	47109,82	56531,79	70664,74	94219,65	141329,47	282658,95
17	13723,93	14446,24	15248,81	16145,80	17154,91	18298,57	19605,61	21113,74	22873,22	24952,60	27447,86	30497,62	34309,82	39211,23	45746,43	54895,72	68619,65	91492,86	137239,29	274478,58
18	14795,31	15574,02	16439,24	17406,25	18494,14	19727,09	21136,16	22762,02	24658,86	26900,57	29590,63	32878,48	36988,29	42272,33	49317,72	59181,26	73976,57	98635,43	147953,15	295906,30
19	18384,85	19352,48	20427,61	21629,24	22981,06	24513,14	26264,07	28284,39	30641,42	33427,00	36769,70	40855,23	45962,13	52528,15	61282,84	73539,41	91924,26	122565,68	183848,52	367697,03
20	18940,95	19937,85	21045,50	22283,47	23676,19	25254,60	27058,50	29139,93	31568,26	34438,10	37881,91	42091,01	47352,38	54117,01	63136,51	75763,81	94704,77	126273,02	189409,53	378819,06
21	16957,51	17850,01	18841,68	19950,01	21196,89	22610,01	24225,01	26088,48	28262,52	30831,84	33915,02	37683,36	42393,77	48450,03	56525,03	67830,04	84787,55	113050,07	169575,10	339150,20
22	14532,11	15296,96	16146,79	17096,60	18165,14	19376,15	20760,16	22357,10	24220,19	26422,02	29064,23	32293,58	36330,28	41520,32	48440,38	58128,45	72660,57	96880,75	145321,13	290642,26
23	13145,45	13837,31	14606,05	15465,23	16431,81	17527,26	18779,21	20223,77	21909,08	23900,81	26290,90	29212,11	32863,62	37558,42	43818,16	52581,79	65727,24	87636,32	131454,48	262908,96
N. PODs	152	161	169	179	191	203	218	235	254	277	305	339	381	436	508	610	762	1017	1525	3050

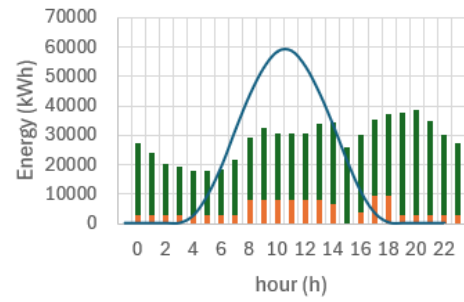
Hourly requirements of a household in a year inherent in the number of PODs

N. POD	Eprod	Einj	Esc	Ewith	Esh	Eto,grid	Econs	Ue	SCI	SSI	ε <sub>0</sub>	ε <sub>CER</sub>	ΔCO <sub>2</sub>
[-]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[%]	[%]	[kgCO <sub>2</sub> ]	[kgCO <sub>2</sub> ]	[%]
152	252429,21	198150,36	54278,85	128538,17	128538,17	69612,19	182817,02	304185,61	72%	60%	50457,498	12621,461	75%
161				134191,23	134191,23	63959,13	188470,08	320195,38	75%	59%	52017,743	12621,461	76%
169				140194,50	140194,50	57955,86	194473,35	337984,01	77%	58%	53674,644	12621,461	76%
179				146760,37	146760,37	51389,99	201039,22	357865,42	80%	56%	55486,825	12621,461	77%
191				153475,97	153475,97	44674,39	207754,82	380232,01	82%	55%	57340,33	12621,461	78%
203				161086,98	161086,98	37063,38	215365,83	405580,81	85%	53%	59440,968	12621,461	79%
218				168618,22	168618,22	29532,14	222897,07	434550,87	88%	51%	61519,592	12621,461	79%
235				174979,97	174979,97	23170,39	229258,82	467977,86	91%	49%	63275,435	12621,461	80%
254				181363,45	181363,45	16786,91	235642,30	506976,02	93%	46%	65037,276	12621,461	81%
277				188812,61	188812,61	9337,76	243091,46	553064,75	96%	44%	67093,242	12621,461	81%
305				195362,43	195362,43	2787,94	249641,28	608371,22	99%	41%	68900,992	12621,461	82%
339				201538,02	198150,36	0,00	255816,87	675968,02	101%	38%	70605,457	13556,455	81%
381				203892,12	198150,36	0,00	258170,97	760464,02	102%	34%	71255,188	14206,186	80%
436				203892,12	198150,36	0,00	258170,97	869101,74	102%	30%	71255,188	14206,186	80%
508				203892,12	198150,36	0,00	258170,97	1013952,03	102%	25%	71255,188	14206,186	80%
610				203892,12	198150,36	0,00	258170,97	1216742,44	102%	21%	71255,188	14206,186	80%
762				203892,12	198150,36	0,00	258170,97	1520928,05	102%	17%	71255,188	14206,186	80%
1017				203892,12	198150,36	0,00	258170,97	2027904,07	102%	13%	71255,188	14206,186	80%
1525				203892,12	198150,36	0,00	258170,97	3041856,10	102%	8%	71255,188	14206,186	80%
3050				203892,12	198150,36	0,00	258170,97	6083712,20	102%	4%	71255,188	14206,186	80%

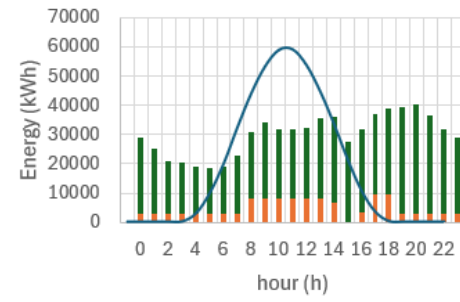
Energy values of the number of PODs. Identified indicators: SCI = Self-consumption index; SSI = Self-sufficiency index; ΔCO<sub>2</sub> = CO<sub>2</sub> Index



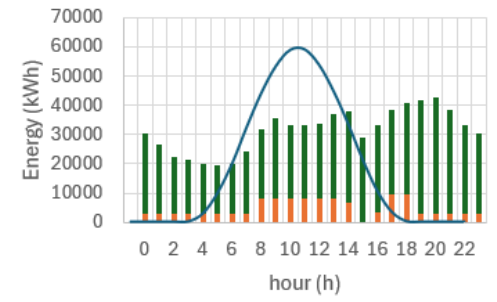
<b>N.POD</b>	274	<b>SCI</b>	71%	<b>SSI</b>	58%	<b>ΔCO<sub>2</sub></b>	75%
<b>p</b>	0%						



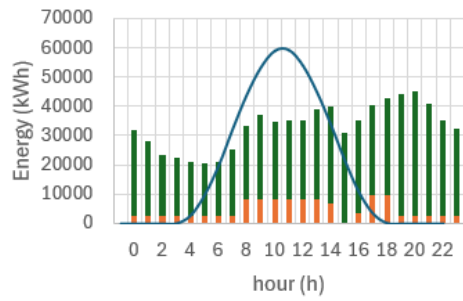
<b>N.POD</b>	288	<b>SCI</b>	73%	<b>SSI</b>	57%	<b>ΔCO<sub>2</sub></b>	75%
<b>p</b>	5%						



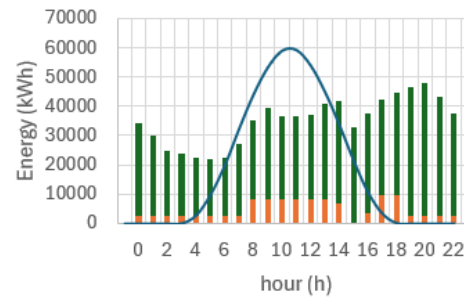
<b>N.POD</b>	304	<b>SCI</b>	76%	<b>SSI</b>	56%	<b>ΔCO<sub>2</sub></b>	76%
<b>p</b>	10%						



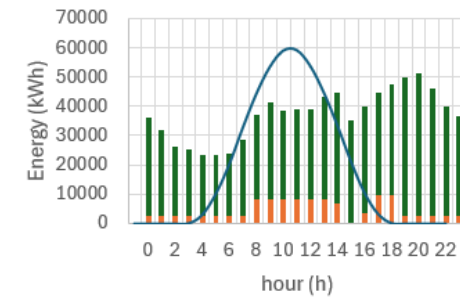
<b>N.POD</b>	322	<b>SCI</b>	79%	<b>SSI</b>	55%	<b>ΔCO<sub>2</sub></b>	77%
<b>p</b>	15%						



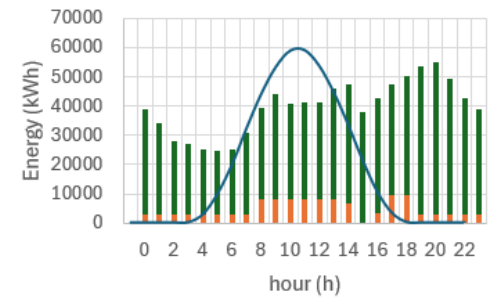
<b>N.POD</b>	342	<b>SCI</b>	81%	<b>SSI</b>	53%	<b>ΔCO<sub>2</sub></b>	78%
<b>p</b>	20%						



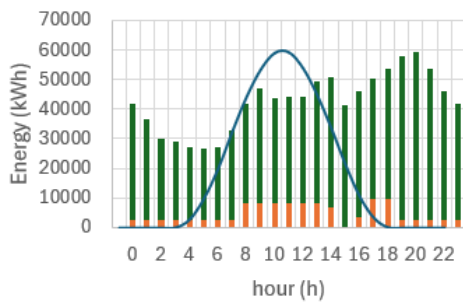
<b>N.POD</b>	365	<b>SCI</b>	81%	<b>SSI</b>	53%	<b>ΔCO<sub>2</sub></b>	78%
<b>p</b>	25%						



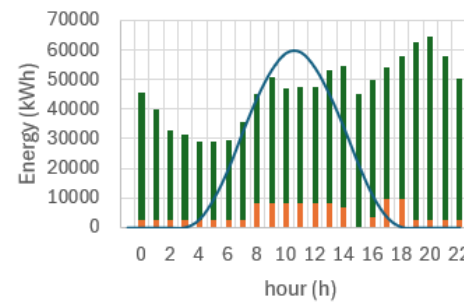
<b>N.POD</b>	391	<b>SCI</b>	84%	<b>SSI</b>	52%	<b>ΔCO<sub>2</sub></b>	79%
<b>p</b>	30%						



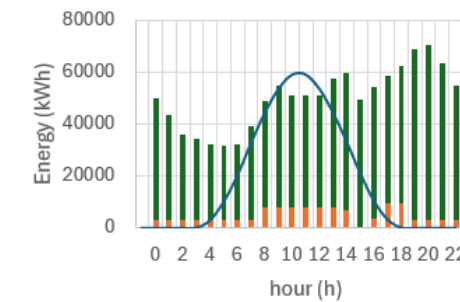
<b>N.POD</b>	421	<b>SCI</b>	90%	<b>SSI</b>	48%	<b>ΔCO<sub>2</sub></b>	80%
<b>p</b>	35%						



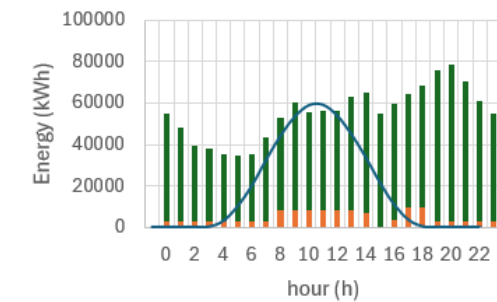
<b>N.POD</b>	456	<b>SCI</b>	93%	<b>SSI</b>	46%	<b>ΔCO<sub>2</sub></b>	80%
<b>p</b>	40%						



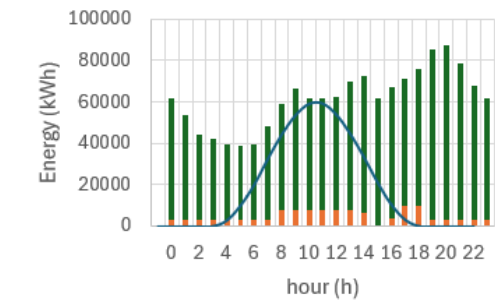
<b>N.POD</b>	497	<b>SCI</b>	96%	<b>SSI</b>	43%	<b>ΔCO<sub>2</sub></b>	81%
<b>p</b>	45%						



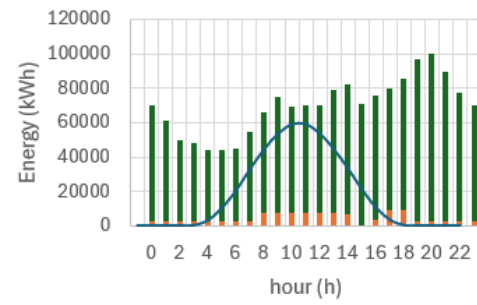
<b>N.POD</b>	547	<b>SCI</b>	99%	<b>SSI</b>	40%	<b>ΔCO<sub>2</sub></b>	82%
<b>p</b>	50%						



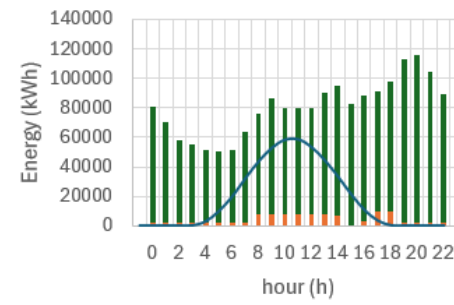
<b>N.POD</b>	608	<b>SCI</b>	101%	<b>SSI</b>	37%	<b>ΔCO<sub>2</sub></b>	81%
<b>p</b>	55%						



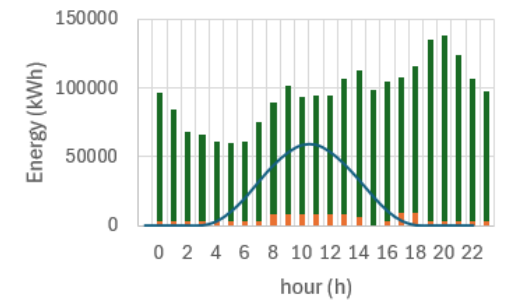
<b>N.POD</b>	684	<b>SCI</b>	103%	<b>SSI</b>	34%	<b>ΔCO<sub>2</sub></b>	80%
<b>p</b>	60%						



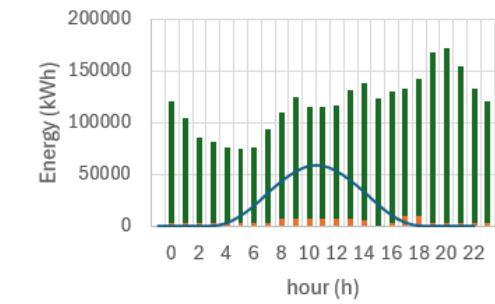
<b>N.POD</b>	782	<b>SCI</b>	103%	<b>SSI</b>	29%	<b>ΔCO<sub>2</sub></b>	80%
<b>p</b>	65%						



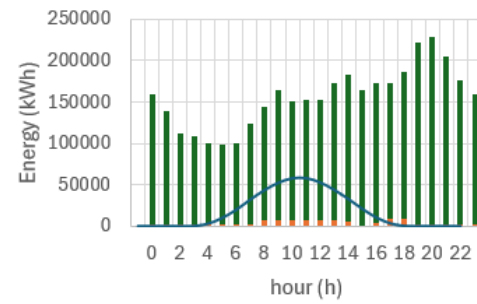
<b>N.POD</b>	912	<b>SCI</b>	103%	<b>SSI</b>	29%	<b>ΔCO<sub>2</sub></b>	80%
<b>p</b>	70%						



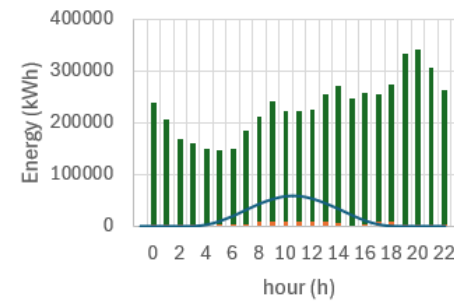
<b>N.POD</b>	1094	<b>SCI</b>	103%	<b>SSI</b>	21%	<b>ΔCO<sub>2</sub></b>	80%
<b>p</b>	75%						



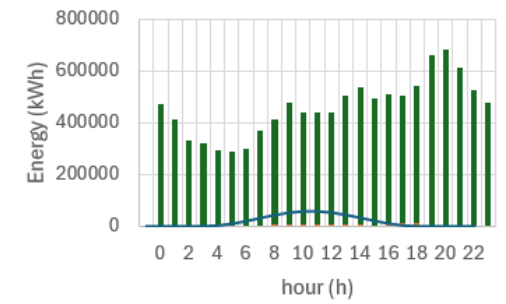
<b>N.POD</b>	###	<b>SCI</b>	103%	<b>SSI</b>	17%	<b>ΔCO<sub>2</sub></b>	80%
<b>p</b>	80%						



<b>N.POD</b>	###	<b>SCI</b>	103%	<b>SSI</b>	13%	<b>ΔCO<sub>2</sub></b>	80%
<b>p</b>	85%						



<b>N.POD</b>	2735	<b>SCI</b>	103%	<b>SSI</b>	8%	<b>ΔCO<sub>2</sub></b>	80%
<b>p</b>	90%						



<b>N.POD</b>	5471	<b>SCI</b>	103%	<b>SSI</b>	4%	<b>ΔCO<sub>2</sub></b>	80%
<b>p</b>	95%						

Graphical representation of results

Case B

Hour (h)	Eprod	Esc
[h]	[kWh]	[kWh]
0	0,00	2737,50
1	0,00	2737,50
2	0,00	2737,50
3	0,00	2737,50
4	121,16	2737,50
5	2912,39	2737,50
6	9951,13	2737,50
7	19955,50	2737,50
8	32427,81	8049,60
9	43962,66	8049,60
10	53151,54	8049,60
11	58756,82	8049,60
12	58906,20	8049,60
13	53533,13	8049,60
14	44480,25	6708,00
15	33333,12	0,00
16	21130,95	3595,50
17	10512,93	9445,50
18	3326,38	9445,50
19	177,58	2737,50
20	0,00	2737,50
21	0,00	2737,50
22	0,00	2737,50
23	0,00	2737,50

Hours of energy produced and self-consumed by the hub in a year

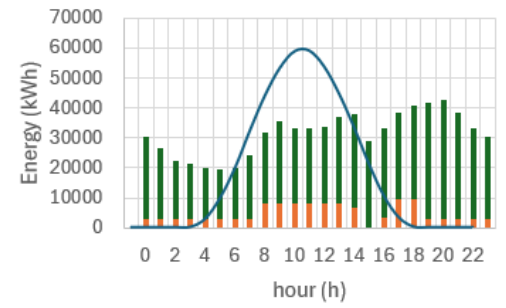
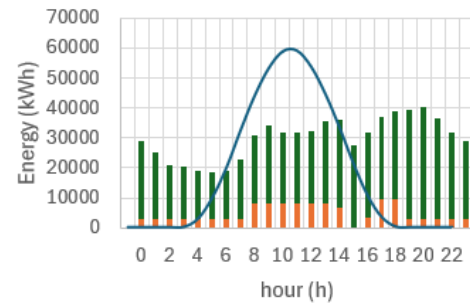
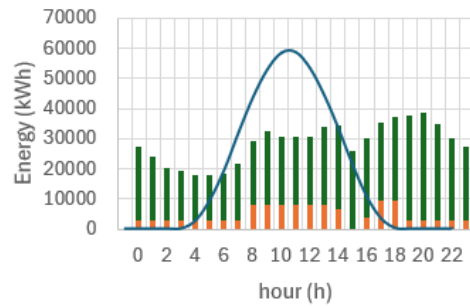
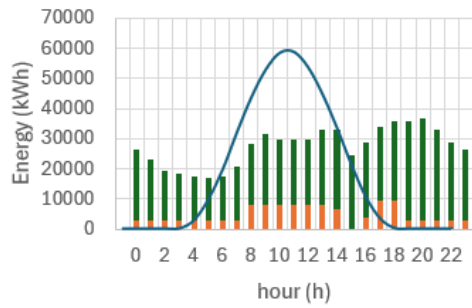
Hours	Hourly needs of a household in one year [kWh]																			
0	23491	24728	26101	27637	29364	31322	33559	36141	39152	42712	46983	52203	58728	67118	78304	93965	117457	156609	234913	469827
1	20372	21444	22636	23967	25465	27163	29103	31342	33953	37040	40744	45271	50930	58206	67907	81488	101860	135814	203721	407442
2	16475	17342	18305	19382	20593	21966	23535	25346	27458	29954	32949	36610	41187	47070	54916	65899	82373	109831	164747	329493
3	15829	16662	17588	18622	19786	21105	22613	24352	26382	28780	31658	35176	39573	45226	52764	63316	79145	105527	158291	316581
4	14600	15369	16223	17177	18251	19467	20858	22462	24334	26546	29201	32445	36501	41716	48668	58402	73002	97336	146004	292009
5	14374	15131	15971	16911	17968	19166	20535	22114	23957	26135	28748	31943	35936	41069	47914	57497	71871	95828	143742	287484
6	14655	15426	16283	17241	18318	19540	20935	22546	24425	26645	29309	32566	36637	41871	48849	58619	73274	97698	146547	293095
7	18184	19141	20204	21392	22729	24245	25976	27975	30306	33061	36367	40408	45459	51953	60612	72734	90918	121223	181835	363670
8	20314	21383	22571	23898	25392	27085	29019	31252	33856	36934	40627	45141	50784	58039	67712	81254	101568	135423	203135	406270
9	23408	24640	26009	27539	29260	31211	33440	36012	39013	42560	46816	52018	58520	66880	78027	93632	117040	156054	234080	468161
10	21432	22560	23813	25214	26790	28576	30617	32972	35720	38967	42864	47627	53580	61234	71440	85728	107160	142880	214320	428641
11	21573	22709	23970	25381	26967	28765	30819	33190	35956	39224	43147	47941	53934	61638	71911	86294	107867	143823	215734	431469
12	21618	22755	24020	25433	27022	28824	30882	33258	36029	39305	43235	48039	54044	61765	72059	86471	108088	144118	216176	432353
13	24697	25997	27441	29055	30871	32929	35281	37995	41161	44903	49393	54882	61742	70562	82322	98787	123484	164645	246967	493935
14	26397	27787	29330	31056	32997	35196	37710	40611	43995	47995	52794	58661	65993	75421	87991	105589	131986	175982	263972	527945
15	24715	26015	27461	29076	30893	32953	35307	38023	41191	44936	49429	54921	61787	70613	82382	98859	123573	164764	247147	494293
16	25353	26687	28170	29827	31691	33804	36219	39005	42255	46096	50706	56340	63382	72437	84510	101412	126765	169020	253530	507059
17	24619	25915	27355	28964	30774	32826	35170	37876	41032	44762	49238	54709	61548	70341	82064	98477	123096	164128	246192	492384
18	26541	27938	29490	31225	33176	35388	37916	40833	44235	48257	53082	58980	66353	75832	88471	106165	132706	176941	265412	530823
19	32980	34716	36645	38800	41226	43974	47115	50739	54967	59964	65961	73290	82451	94230	109935	131922	164902	219869	329804	659608
20	33978	35766	37753	39974	42472	45304	48540	52274	56630	61778	67956	75507	84945	97080	113260	135912	169890	226520	339780	679560
21	30420	32021	33800	35788	38025	40560	43457	46800	50700	55309	60840	67600	76050	86914	101400	121680	152100	202799	304199	608398
22	26069	27441	28966	30669	32586	34759	37241	40106	43448	47398	52138	57931	65173	74483	86897	104276	130345	173793	260690	521380
23	23581	24823	26202	27743	29477	31442	33688	36279	39302	42875	47163	52403	58954	67376	78605	94326	117907	157210	235815	471630
N. PODs	274	288	304	322	342	365	391	421	456	497	547	608	684	782	912	1094	1368	1824	2735	5471

Hourly requirements of a household in a year inherent in the number of PODs

N. POD	Eprod	Einj	Esc	Ewith	Esh	Eto,grid	Econs	Ue	SCI	SSI	ε <sub>0</sub>	ε <sub>CER</sub>	ΔCO <sub>2</sub>
[-]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[%]	[%]	[kgCO <sub>2</sub> ]	[kgCO <sub>2</sub> ]	[%]
274	446639,55	355459,95	91179,60	227362,70	227362,70	128097,25	318542,30	545675,52	71,32%	58,38%	87917,68	22331,98	74,60%
288				237054,98	237054,98	118404,97	328234,58	574395,28	73,49%	57,14%	90592,74	22331,98	75,35%
304				247824,18	247824,18	107635,77	339003,78	606306,13	75,90%	55,91%	93565,04	22331,98	76,13%
322				259860,34	259860,34	95599,61	351039,94	641971,20	78,60%	54,68%	96887,02	22331,98	76,95%
342				272387,34	272387,34	83072,61	363566,94	682094,40	81,40%	53,30%	100344,48	22331,98	77,74%
365				286040,65	286040,65	69419,30	377220,25	727567,36	84,46%	51,85%	104112,79	22331,98	78,55%
391				299670,91	299670,91	55789,04	390850,51	779536,46	87,51%	50,14%	107874,74	22331,98	79,30%
421				312021,19	312021,19	43438,76	403200,79	839500,80	90,27%	48,03%	111283,42	22331,98	79,93%
456				323472,45	323472,45	31987,50	414652,05	909459,20	92,84%	45,59%	114443,97	22331,98	80,49%
497				337005,76	337005,76	18454,19	428185,36	992137,31	95,87%	43,16%	118179,16	22331,98	81,10%
547				349335,80	349335,80	6124,15	440515,40	1091351,04	98,63%	40,36%	121582,25	22331,98	81,63%
608				361171,66	355459,95	0,00	452351,26	1212612,27	101,28%	37,30%	124848,95	23908,41	80,85%
684				366755,33	355459,95	0,00	457934,93	1364188,80	102,53%	33,57%	126390,04	25449,50	79,86%
782				366755,33	355459,95	0,00	457934,93	1559072,91	102,53%	29,37%	126390,04	25449,50	79,86%
912				366755,33	355459,95	0,00	457934,93	1818918,40	102,53%	25,18%	126390,04	25449,50	79,86%
1094				366755,33	355459,95	0,00	457934,93	2182702,08	102,53%	20,98%	126390,04	25449,50	79,86%
1368				366755,33	355459,95	0,00	457934,93	2728377,60	102,53%	16,78%	126390,04	25449,50	79,86%
1824				366755,33	355459,95	0,00	457934,93	3637836,80	102,53%	12,59%	126390,04	25449,50	79,86%
2735				366755,33	355459,95	0,00	457934,93	5456755,19	102,53%	8,39%	126390,04	25449,50	79,86%
5471				366755,33	355459,95	0,00	457934,93	10913510,39	102,53%	4,20%	126390,04	25449,50	79,86%

Energy values of the number of PODs. Identified indicators: SCI = Self-consumption index; SSI = Self-sufficiency index; ΔCO<sub>2</sub> = CO<sub>2</sub> Index



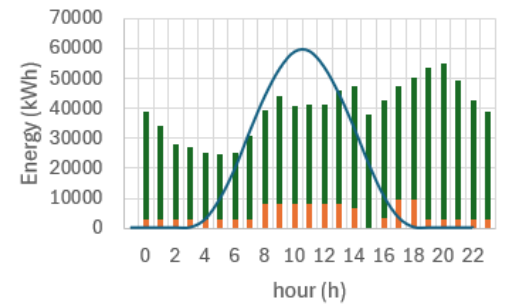
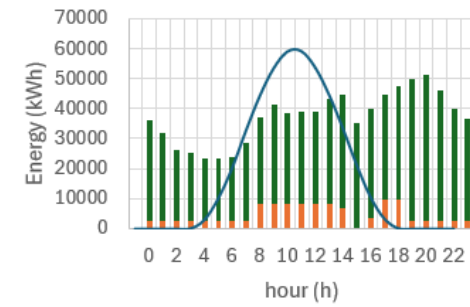
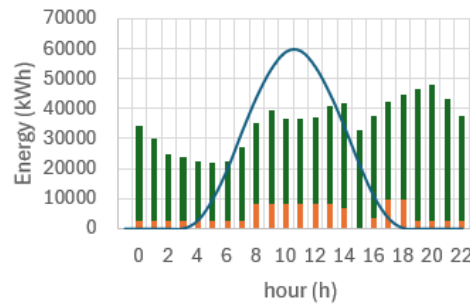
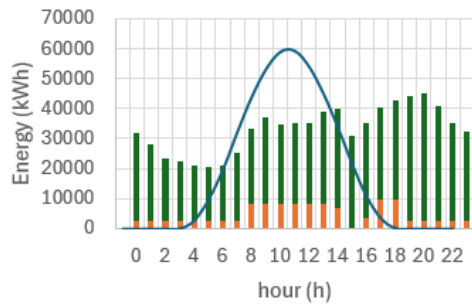


<b>N.POD</b>	274	<b>SCI</b>	71%	<b>SSI</b>	58%	<b>ΔCO<sub>2</sub></b>	75%
<b>p</b>	0%						

<b>N.POD</b>	288	<b>SCI</b>	73%	<b>SSI</b>	57%	<b>ΔCO<sub>2</sub></b>	75%
<b>p</b>	5%						

<b>N.POD</b>	304	<b>SCI</b>	76%	<b>SSI</b>	56%	<b>ΔCO<sub>2</sub></b>	76%
<b>p</b>	10%						

<b>N.POD</b>	322	<b>SCI</b>	79%	<b>SSI</b>	55%	<b>ΔCO<sub>2</sub></b>	77%
<b>p</b>	15%						

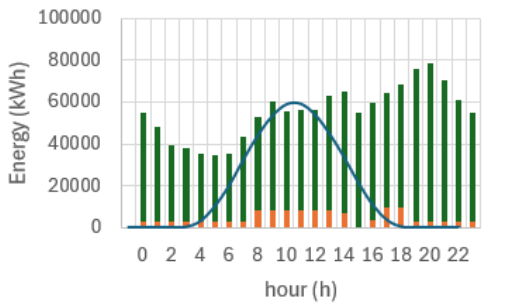
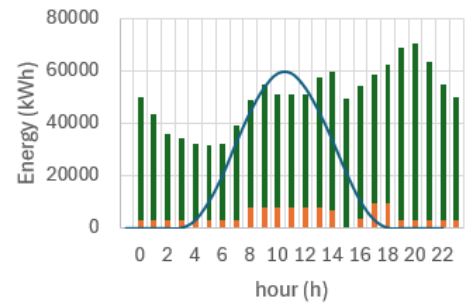
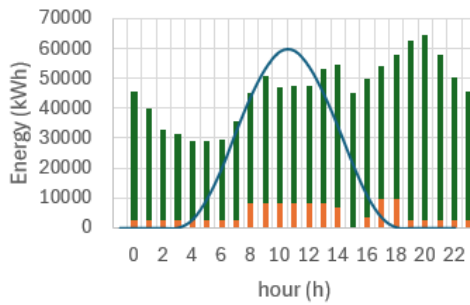
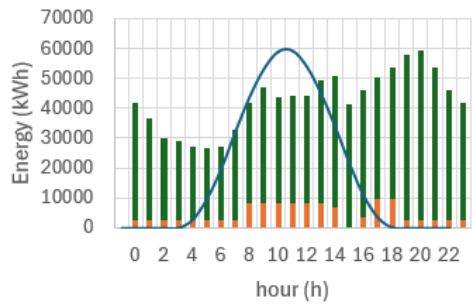


<b>N.POD</b>	342	<b>SCI</b>	81%	<b>SSI</b>	53%	<b>ΔCO<sub>2</sub></b>	78%
<b>p</b>	20%						

<b>N.POD</b>	365	<b>SCI</b>	81%	<b>SSI</b>	53%	<b>ΔCO<sub>2</sub></b>	78%
<b>p</b>	25%						

<b>N.POD</b>	391	<b>SCI</b>	84%	<b>SSI</b>	52%	<b>ΔCO<sub>2</sub></b>	79%
<b>p</b>	30%						

<b>N.POD</b>	421	<b>SCI</b>	90%	<b>SSI</b>	48%	<b>ΔCO<sub>2</sub></b>	80%
<b>p</b>	35%						

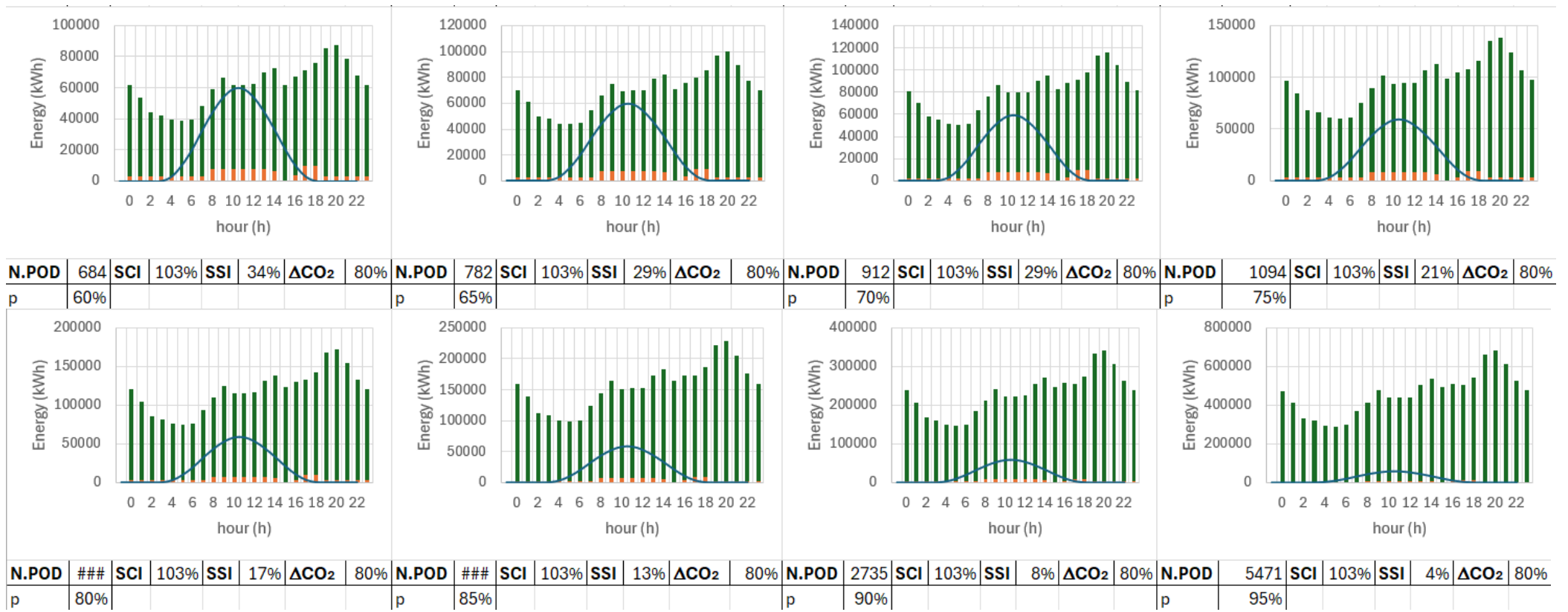


<b>N.POD</b>	456	<b>SCI</b>	93%	<b>SSI</b>	46%	<b>ΔCO<sub>2</sub></b>	80%
<b>p</b>	40%						

<b>N.POD</b>	497	<b>SCI</b>	96%	<b>SSI</b>	43%	<b>ΔCO<sub>2</sub></b>	81%
<b>p</b>	45%						

<b>N.POD</b>	547	<b>SCI</b>	99%	<b>SSI</b>	40%	<b>ΔCO<sub>2</sub></b>	82%
<b>p</b>	50%						

<b>N.POD</b>	608	<b>SCI</b>	101%	<b>SSI</b>	37%	<b>ΔCO<sub>2</sub></b>	81%
<b>p</b>	55%						



Graphical representation of results

Case C

Hour (h)	Eprod	Esc
[h]	[kWh]	[kWh]
0	0,00	325,66
1	0,00	1095,00
2	0,00	1095,00
3	0,00	1095,00
4	154,91	1095,00
5	3771,42	1095,00
6	12939,96	1095,00
7	27306,05	1095,00
8	43925,56	5300,10
9	59286,65	5300,10
10	71691,76	5300,10
11	79250,96	5300,10
12	79452,37	5300,10
13	72206,40	5300,10
14	59993,99	4416,75
15	44906,89	0,00
16	28297,39	1563,00
17	13869,09	5511,75
18	4129,62	5511,75
19	208,06	1095,00
20	0,00	1095,00
21	0,00	1095,00
22	0,00	1095,00
23	0,00	1095,00

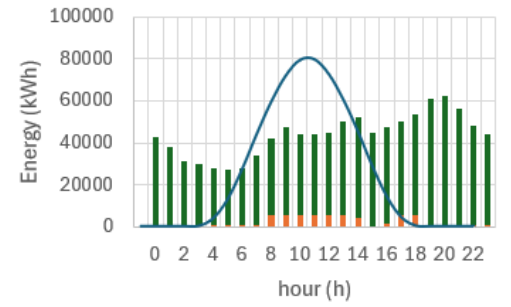
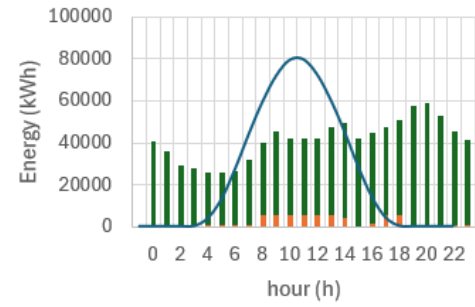
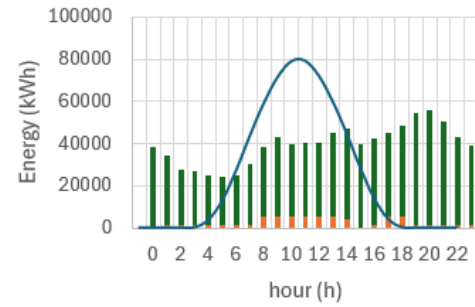
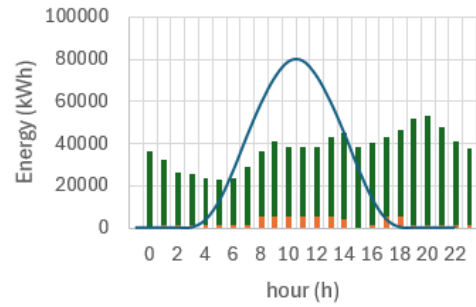
Hours of energy produced and self-consumed by the hub in a year

Hours	Hourly needs of a household in one year [kWh]																			
0	36157	38060	40175	42538	45196	48209	51653	55626	60262	65740	72314	80349	90393	103306	120524	144628	180786	241047	361571	723142
1	31356	33006	34840	36889	39195	41808	44794	48240	52260	57011	62712	69680	78390	89589	104520	125424	156780	209040	313561	627121
2	25357	26692	28175	29832	31697	33810	36225	39011	42262	46104	50715	56349	63393	72449	84524	101429	126786	169048	253573	507145
3	24364	25646	27071	28663	30454	32485	34805	37482	40606	44297	48727	54141	60909	69610	81212	97454	121818	162424	243636	487271
4	22473	23655	24969	26438	28091	29963	32104	34573	37454	40859	44945	49939	56181	64207	74908	89890	112363	149817	224725	449450
5	22124	23289	24583	26029	27655	29499	31606	34037	36874	40226	44249	49165	55311	63212	73748	88497	110622	147495	221243	442486
6	22556	23743	25062	26537	28195	30075	32223	34702	37593	41011	45112	50125	56390	64446	75187	90224	112780	150374	225561	451122
7	27987	29460	31097	32926	34984	37317	39982	43058	46646	50886	55975	62194	69969	79964	93292	111950	139937	186583	279875	559749
8	31266	32911	34740	36783	39082	41688	44666	48101	52110	56847	62532	69480	78165	89331	104220	125064	156329	208439	312659	625318
9	36029	37925	40032	42387	45036	48038	51470	55429	60048	65507	72058	80064	90072	102940	120096	144115	180144	240192	360289	720577
10	32987	34724	36653	38809	41234	43983	47125	50750	54979	59977	65975	73306	82469	94250	109958	131950	164937	219917	329875	659750
11	33205	34953	36895	39065	41506	44274	47436	51085	55342	60373	66410	73789	83013	94872	110684	132821	166026	221368	332051	664103
12	33273	35024	36970	39145	41591	44364	47533	51189	55455	60497	66546	73940	83183	95066	110910	133093	166366	221821	332731	665463
13	38012	40013	42236	44720	47515	50683	54303	58481	63354	69113	76025	84472	95031	108607	126708	152050	190062	253416	380124	760248
14	40630	42768	45144	47800	50787	54173	58043	62507	67716	73872	81260	90288	101574	116085	135433	162519	203149	270865	406298	812595
15	38040	40042	42267	44753	47550	50720	54343	58523	63400	69164	76080	84533	95100	108686	126800	152160	190200	253600	380400	760800
16	39022	41076	43358	45909	48778	52030	55746	60035	65037	70950	78045	86717	97556	111493	130075	156090	195112	260150	390224	780449
17	37893	39887	42103	44580	47366	50524	54133	58297	63155	68897	75786	84207	94733	108266	126310	151572	189465	252621	378931	757862
18	40851	43001	45390	48060	51064	54468	58359	62848	68085	74275	81703	90781	102128	116718	136171	163405	204256	272342	408513	817026
19	50762	53434	56403	59720	63453	67683	72518	78096	84604	92295	101525	112805	126906	145035	169208	203049	253812	338416	507623	1015247
20	52298	55050	58109	61527	65372	69730	74711	80458	87163	95087	104596	116217	130744	149422	174326	209191	261489	348652	522978	1045956
21	46821	49286	52024	55084	58527	62428	66888	72033	78036	85130	93643	104047	117053	133775	156071	187285	234107	312142	468213	936426
22	40125	42236	44583	47205	50156	53499	57321	61730	66874	72954	80249	89166	100311	114642	133749	160498	200623	267497	401246	802491
23	36296	38206	40329	42701	45370	48394	51851	55840	60493	65992	72592	80657	90740	103702	120986	145183	181479	241972	362958	725917
N. PODs	421	443	468	495	526	561	601	648	702	765	842	936	1053	1203	1403	1684	2105	2807	4210	8420

Hourly requirements of a household in a year inherent in the number of PODs

N. POD	Eprod	Einj	Esc	Ewith	Esh	Eto,grid	Econs	Ue	SCI	SSI	ε0	εCER	ΔCO <sub>2</sub>
[-]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[%]	[%]	[kgCO <sub>2</sub> ]	[kgCO <sub>2</sub> ]	[%]
421	601391,08	547112,23	54278,85	359266,85	359266,85	187845,38	413545,70	839885,76	69%	49%	114138,61	30069,554	74%
443				374184,88	374184,88	172927,35	428463,73	884090,27	71%	48%	118255,99	30069,554	75%
468				390760,48	390760,48	156351,75	445039,33	933206,40	74%	48%	122830,86	30069,554	76%
495				409286,15	409286,15	137826,08	463565,00	988100,89	77%	47%	127943,94	30069,554	76%
526				427027,51	427027,51	120084,72	481306,36	1049857,20	80%	46%	132840,56	30069,554	77%
561				444872,24	444872,24	102239,99	499151,09	1119847,68	83%	45%	137765,7	30069,554	78%
601				462800,93	462800,93	84311,30	517079,78	1199836,80	86%	43%	142714,02	30069,554	79%
648				480425,16	480425,16	66687,07	534704,01	1292131,94	89%	41%	147578,31	30069,554	80%
702				498050,57	498050,57	49061,66	552329,42	1399809,60	92%	39%	152442,92	30069,554	80%
765				516673,45	516673,45	30438,78	570952,30	1527065,02	95%	37%	157582,83	30069,554	81%
842				534758,13	534758,13	12354,10	589036,98	1679771,52	98%	35%	162574,21	30069,554	82%
936				549947,74	547112,23	0,00	604226,59	1866412,80	100%	32%	166766,54	30852,155	81%
1053				550321,39	547112,23	0,00	604600,24	2099714,40	101%	29%	166869,67	30955,282	81%
1203				550321,39	547112,23	0,00	604600,24	2399673,60	101%	25%	166869,67	30955,282	81%
1403				550321,39	547112,23	0,00	604600,24	2799619,20	101%	22%	166869,67	30955,282	81%
1684				550321,39	547112,23	0,00	604600,24	3359543,04	101%	18%	166869,67	30955,282	81%
2105				550321,39	547112,23	0,00	604600,24	4199428,80	101%	14%	166869,67	30955,282	81%
2807				550321,39	547112,23	0,00	604600,24	5599238,40	101%	11%	166869,67	30955,282	81%
4210				550321,39	547112,23	0,00	604600,24	8398857,60	101%	7%	166869,67	30955,282	81%
8420				550321,39	547112,23	0,00	604600,24	16797715,20	101%	4%	166869,67	30955,282	81%

Energy values of the number of PODs. Identified indicators: SCI = Self-consumption index; SSI = Self-sufficiency index; ΔCO<sub>2</sub> = CO<sub>2</sub> Index

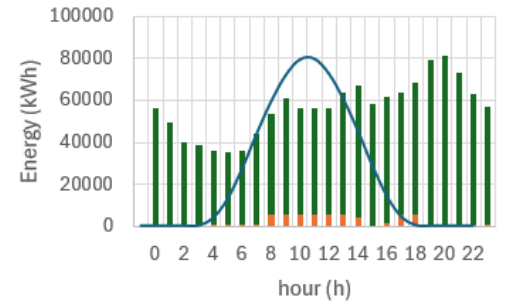
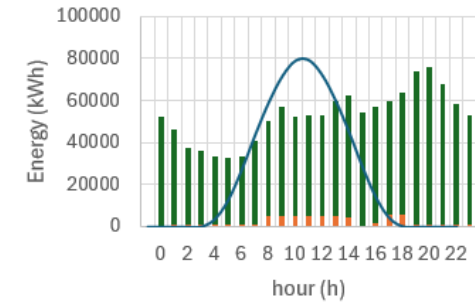
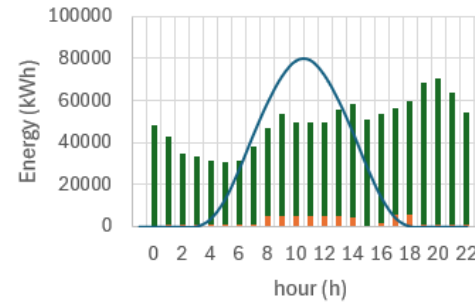
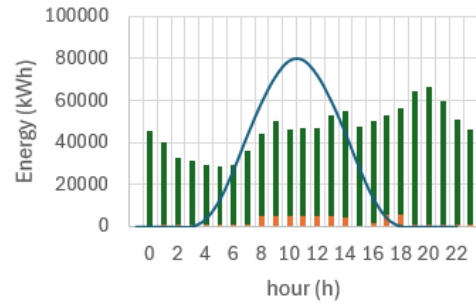


<b>N.POD</b>	421	<b>SCI</b>	69%	<b>SSI</b>	49%	<b>ΔCO<sub>2</sub></b>	74%
<b>p</b>	0%						

<b>N.POD</b>	443	<b>SCI</b>	71%	<b>SSI</b>	48%	<b>ΔCO<sub>2</sub></b>	75%
<b>p</b>	5%						

<b>N.POD</b>	468	<b>SCI</b>	74%	<b>SSI</b>	48%	<b>ΔCO<sub>2</sub></b>	76%
<b>p</b>	10%						

<b>N.POD</b>	495	<b>SCI</b>	77%	<b>SSI</b>	47%	<b>ΔCO<sub>2</sub></b>	76%
<b>p</b>	15%						

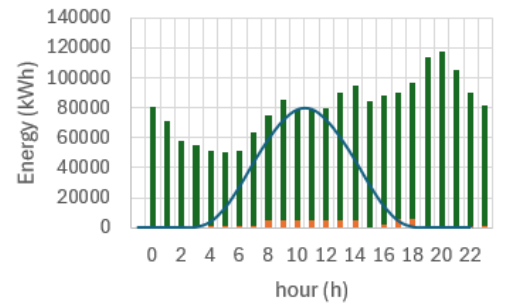
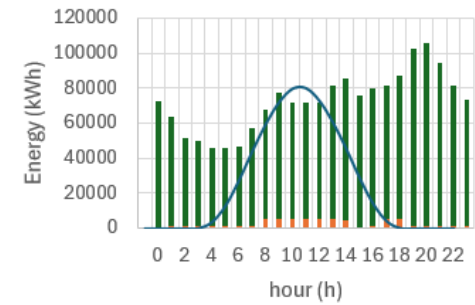
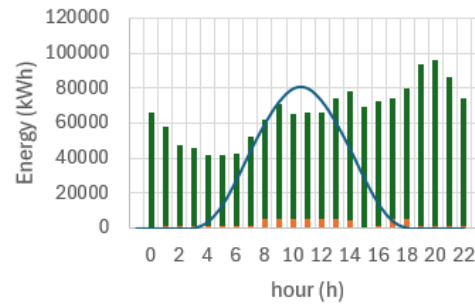
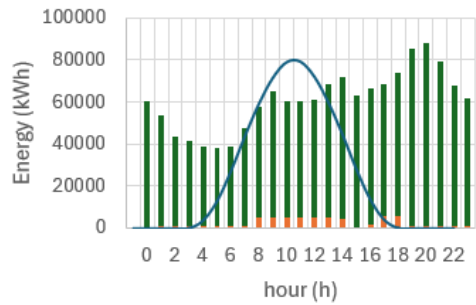


<b>N.POD</b>	526	<b>SCI</b>	80%	<b>SSI</b>	46%	<b>ΔCO<sub>2</sub></b>	77%
<b>p</b>	20%						

<b>N.POD</b>	561	<b>SCI</b>	80%	<b>SSI</b>	46%	<b>ΔCO<sub>2</sub></b>	77%
<b>p</b>	25%						

<b>N.POD</b>	601	<b>SCI</b>	83%	<b>SSI</b>	45%	<b>ΔCO<sub>2</sub></b>	78%
<b>p</b>	30%						

<b>N.POD</b>	648	<b>SCI</b>	89%	<b>SSI</b>	41%	<b>ΔCO<sub>2</sub></b>	80%
<b>p</b>	35%						

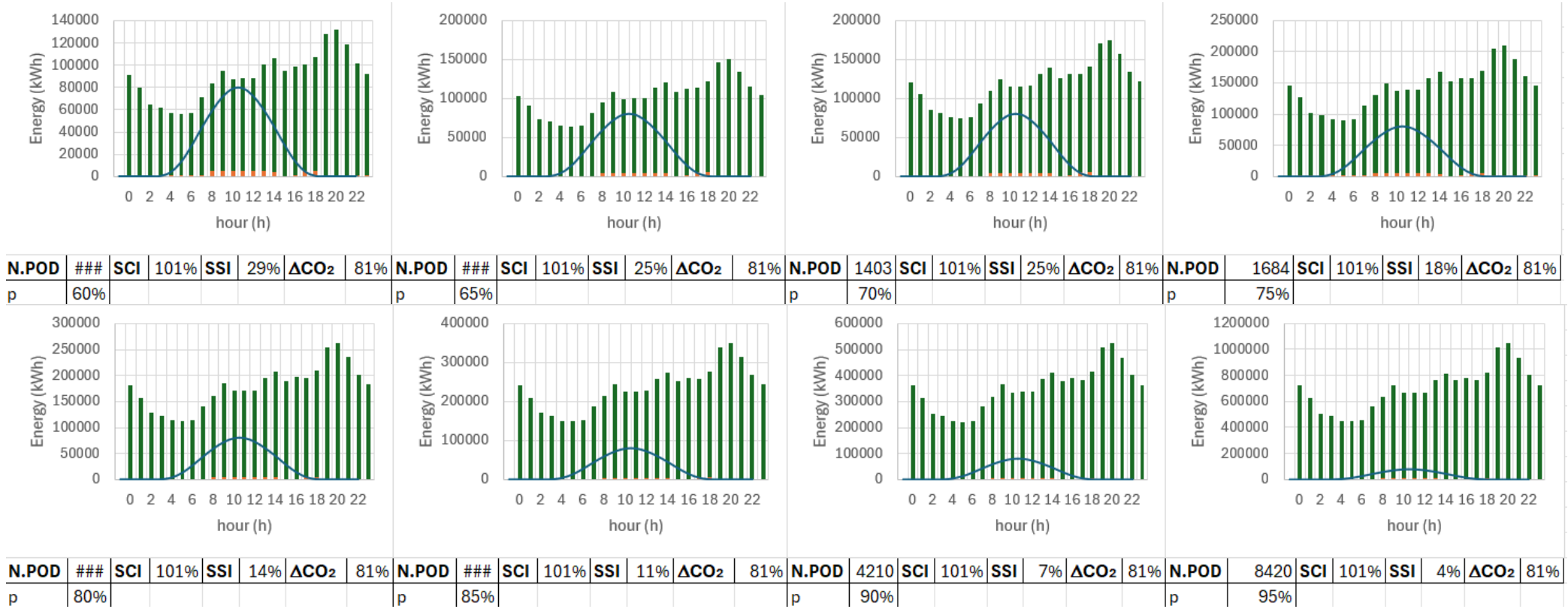


<b>N.POD</b>	702	<b>SCI</b>	92%	<b>SSI</b>	39%	<b>ΔCO<sub>2</sub></b>	80%
<b>p</b>	40%						

<b>N.POD</b>	765	<b>SCI</b>	95%	<b>SSI</b>	37%	<b>ΔCO<sub>2</sub></b>	81%
<b>p</b>	45%						

<b>N.POD</b>	842	<b>SCI</b>	98%	<b>SSI</b>	35%	<b>ΔCO<sub>2</sub></b>	82%
<b>p</b>	50%						

<b>N.POD</b>	936	<b>SCI</b>	100%	<b>SSI</b>	32%	<b>ΔCO<sub>2</sub></b>	81%
<b>p</b>	55%						



Graphical representation of results

## Case D

Hour (h)	Eprod	Esc
[h]	[kWh]	[kWh]
0	0,00	2737,50
1	0,00	2737,50
2	0,00	2737,50
3	0,00	2737,50
4	234,36	2737,50
5	5566,52	2737,50
6	18401,51	2737,50
7	37678,22	2737,50
8	60683,27	1193,40
9	81881,51	1193,40
10	98995,92	1193,40
11	109435,65	1193,40
12	109713,84	1193,40
13	99674,46	1193,40
14	82501,25	994,50
15	61473,07	0,00
16	38459,76	2971,50
17	18991,38	3732,00
18	6020,28	3732,00
19	341,10	2737,50
20	0,00	2737,50
21	0,00	2737,50
22	0,00	2737,50
23	0,00	2737,50

Hours of energy produced and self-consumed by the hub in a year

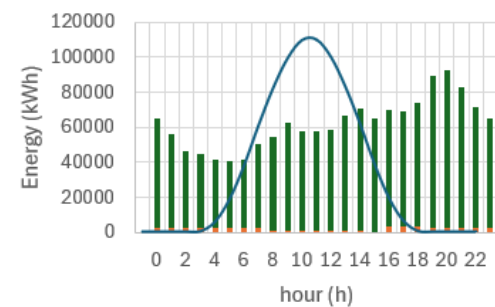
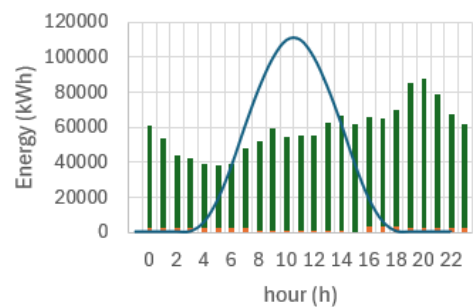
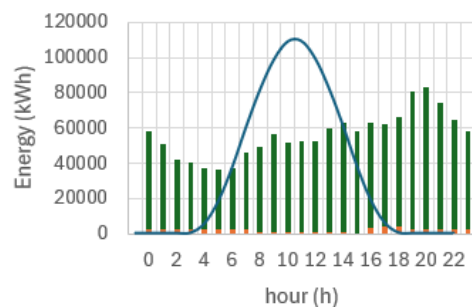
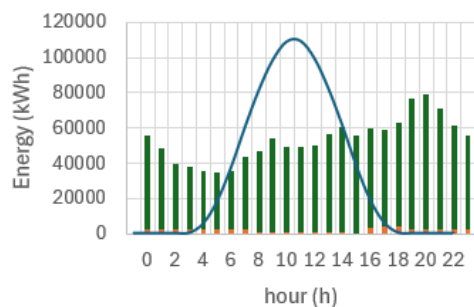


Hours	Hourly needs of a household in one year [kWh]																			
0	52723	55498	58581	62027	65903	70297	75318	81112	87871	95859	105445	117161	131807	150636	175742	210891	263613	351484	527227	1054453
1	45722	48128	50802	53791	57152	60963	65317	70342	76203	83131	91444	101604	114305	130634	152407	182888	228610	304813	457220	914440
2	36975	38921	41083	43500	46219	49300	52821	56884	61625	67227	73950	82166	92437	105642	123249	147899	184874	246499	369748	739496
3	35526	37396	39473	41795	44407	47368	50751	54655	59210	64592	71052	78946	88815	101502	118419	142103	177629	236839	355258	710517
4	32768	34493	36409	38551	40961	43691	46812	50413	54614	59579	65537	72819	81921	93624	109228	131074	163842	218456	327684	655368
5	32261	33959	35845	37954	40326	43014	46087	49632	53768	58656	64521	71690	80652	92173	107536	129043	161303	215071	322607	645213
6	32890	34621	36545	38694	41113	43854	46986	50600	54817	59800	65780	73089	82226	93972	109634	131561	164451	219268	328902	657805
7	40810	42958	45345	48012	51013	54413	58300	62785	68017	74200	81620	90689	102025	116600	136034	163240	204050	272067	408101	816201
8	45591	47990	50656	53636	56988	60787	65129	70139	75984	82892	91181	101312	113976	130259	151968	182362	227953	303937	455905	911810
9	52536	55301	58373	61807	65670	70048	75051	80824	87559	95519	105071	116746	131339	150102	175119	210143	262678	350238	525357	1050713
10	48101	50632	53445	56589	60126	64134	68716	74001	80168	87456	96202	106891	120252	137431	160336	192403	240504	320672	481009	962017
11	48418	50967	53798	56963	60523	64558	69169	74490	80697	88033	96836	107596	121046	138338	161394	193673	242091	322788	484182	968364
12	48517	51071	53908	57079	60647	64690	69311	74642	80862	88213	97035	107816	121293	138621	161725	194070	242587	323449	485174	970348
13	55428	58345	61587	65209	69285	73904	79183	85274	92380	100778	110856	123173	138570	158366	184760	221712	277140	369520	554280	1108559
14	59244	62363	65827	69699	74056	78993	84635	91145	98741	107717	118489	131654	148111	169270	197482	236978	296222	394963	592445	1184890
15	55468	58388	61631	65257	69335	73958	79240	85336	92447	100851	110936	123263	138670	158481	184894	221873	277341	369788	554682	1109364
16	56901	59896	63223	66942	71126	75868	81287	87540	94835	103456	113801	126446	142252	162574	189669	227603	284504	379338	569007	1138015
17	55254	58162	61393	65005	69067	73672	78934	85006	92090	100462	110508	122787	138135	157869	184180	221016	276270	368360	552540	1105080
18	59567	62703	66186	70079	74459	79423	85096	91642	99279	108305	119135	132372	148919	170193	198558	238270	297837	397117	595675	1191350
19	74019	77915	82244	87082	92524	98692	105742	113876	123366	134581	148039	164487	185048	211484	246731	296077	370097	493462	740193	1480387
20	76258	80272	84731	89716	95323	101678	108940	117320	127097	138651	152517	169463	190646	217881	254194	305033	381291	508388	762583	1525165
21	68273	71866	75859	80321	85341	91030	97532	105035	113788	124132	136545	151717	170682	195065	227576	273091	341364	455151	682727	1365454
22	58508	61587	65009	68833	73135	78010	83583	90012	97513	106378	117016	130017	146270	167165	195026	234031	292539	390052	585078	1170156
23	52925	55710	58806	62265	66156	70567	75607	81423	88208	96227	105850	117611	132312	151214	176417	211700	264625	352833	529250	1058499
N. PODs	614	646	682	722	767	819	877	944	1023	1116	1228	1364	1535	1754	2046	2456	3069	4093	6139	12278

Hourly requirements of a household in a year inherent in the number of PODs

N. POD	Eprod	Einj	Esc	Ewith	Esh	Eto,grid	Econs	Ue	SCI	SSI	$\epsilon_0$	$\epsilon_{CER}$	$\Delta CO_2$
[-]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[%]	[%]	[kgCO <sub>2</sub> ]	[kgCO <sub>2</sub> ]	[%]
614	830052,10	797774,20	32277,90	517484,64	517484,64	280289,56	549762,54	1224683,26	66%	45%	151734,46	41502,605	73%
646				539237,44	539237,44	258536,76	571515,34	1289140,28	69%	44%	157738,24	41502,605	74%
682				563248,98	563248,98	234525,22	595526,88	1360759,18	72%	44%	164365,42	41502,605	75%
722				586636,89	586636,89	211137,31	618914,79	1440803,84	75%	43%	170820,48	41502,605	76%
767				612948,29	612948,29	184825,91	645226,19	1530854,08	78%	42%	178082,43	41502,605	77%
819				641470,40	641470,40	156303,80	673748,30	1632911,02	81%	41%	185954,53	41502,605	78%
877				668079,74	668079,74	129694,46	700357,64	1749547,52	84%	40%	193298,71	41502,605	79%
944				695745,98	695745,98	102028,22	728023,88	1884128,09	88%	39%	200934,59	41502,605	79%
1023				721446,54	721446,54	76327,66	753724,44	2041138,77	91%	37%	208027,95	41502,605	80%
1116				749522,91	749522,91	48251,29	781800,81	2226696,84	94%	35%	215777,02	41502,605	81%
1228				775893,17	775893,17	21881,03	808171,07	2449366,52	97%	33%	223055,22	41502,605	81%
1364				799035,19	797774,20	0,00	831313,09	2721518,36	100%	31%	229442,41	41850,637	82%
1535				800385,46	797774,20	0,00	832663,36	3061708,15	100%	27%	229815,09	42223,313	82%
1754				800385,46	797774,20	0,00	832663,36	3499095,03	100%	24%	229815,09	42223,313	82%
2046				800385,46	797774,20	0,00	832663,36	4082277,54	100%	20%	229815,09	42223,313	82%
2456				800385,46	797774,20	0,00	832663,36	4898733,05	100%	17%	229815,09	42223,313	82%
3069				800385,46	797774,20	0,00	832663,36	6123416,31	100%	14%	229815,09	42223,313	82%
4093				800385,46	797774,20	0,00	832663,36	8164555,08	100%	10%	229815,09	42223,313	82%
6139				800385,46	797774,20	0,00	832663,36	12246832,62	100%	7%	229815,09	42223,313	82%
12278				800385,46	797774,20	0,00	832663,36	24493665,23	100%	3%	229815,09	42223,313	82%

Energy values of the number of PODs. Identified indicators: SCI = Self-consumption index; SSI = Self-sufficiency index;  $\Delta CO_2$  = CO<sub>2</sub> Index

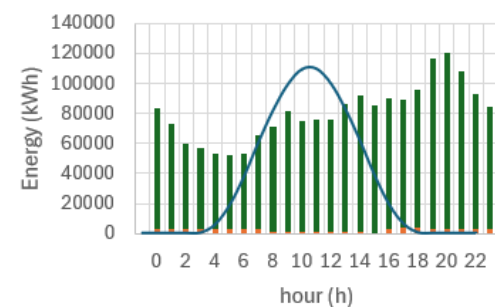
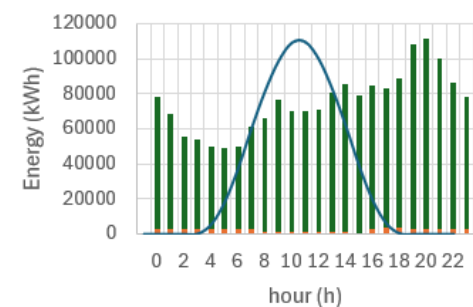
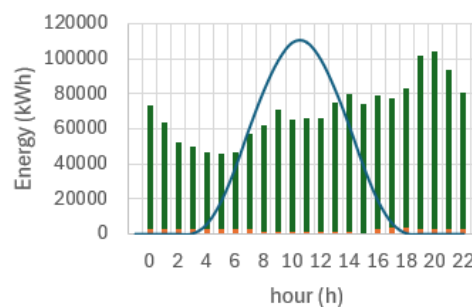
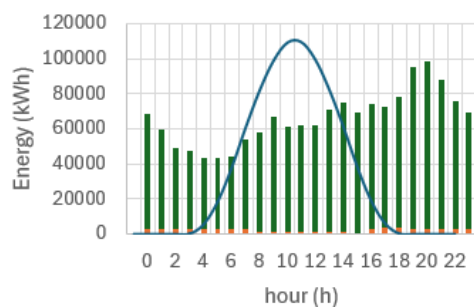


<b>N.POD</b>	614	<b>SCI</b>	66%	<b>SSI</b>	45%	<b>ΔCO<sub>2</sub></b>	73%
<b>p</b>	0%						

<b>N.POD</b>	646	<b>SCI</b>	69%	<b>SSI</b>	44%	<b>ΔCO<sub>2</sub></b>	74%
<b>p</b>	5%						

<b>N.POD</b>	682	<b>SCI</b>	72%	<b>SSI</b>	44%	<b>ΔCO<sub>2</sub></b>	75%
<b>p</b>	10%						

<b>N.POD</b>	722	<b>SCI</b>	75%	<b>SSI</b>	43%	<b>ΔCO<sub>2</sub></b>	76%
<b>p</b>	15%						

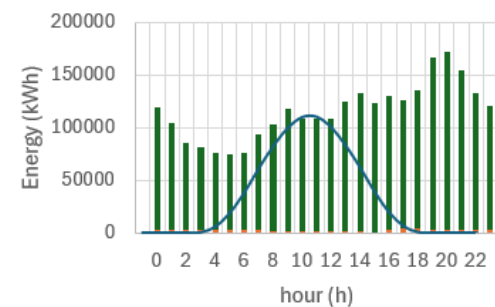
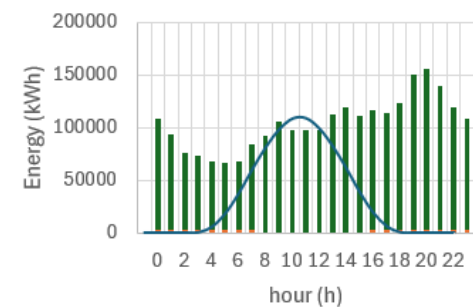
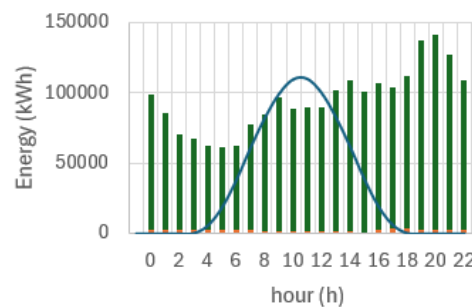
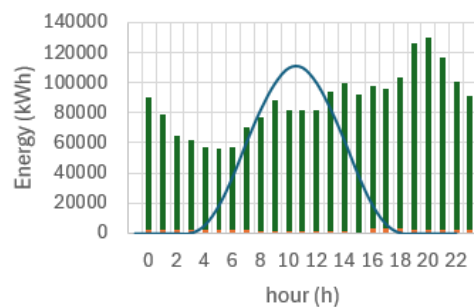


<b>N.POD</b>	767	<b>SCI</b>	78%	<b>SSI</b>	42%	<b>ΔCO<sub>2</sub></b>	77%
<b>p</b>	20%						

<b>N.POD</b>	819	<b>SCI</b>	78%	<b>SSI</b>	42%	<b>ΔCO<sub>2</sub></b>	77%
<b>p</b>	25%						

<b>N.POD</b>	877	<b>SCI</b>	81%	<b>SSI</b>	41%	<b>ΔCO<sub>2</sub></b>	78%
<b>p</b>	30%						

<b>N.POD</b>	944	<b>SCI</b>	88%	<b>SSI</b>	39%	<b>ΔCO<sub>2</sub></b>	79%
<b>p</b>	35%						

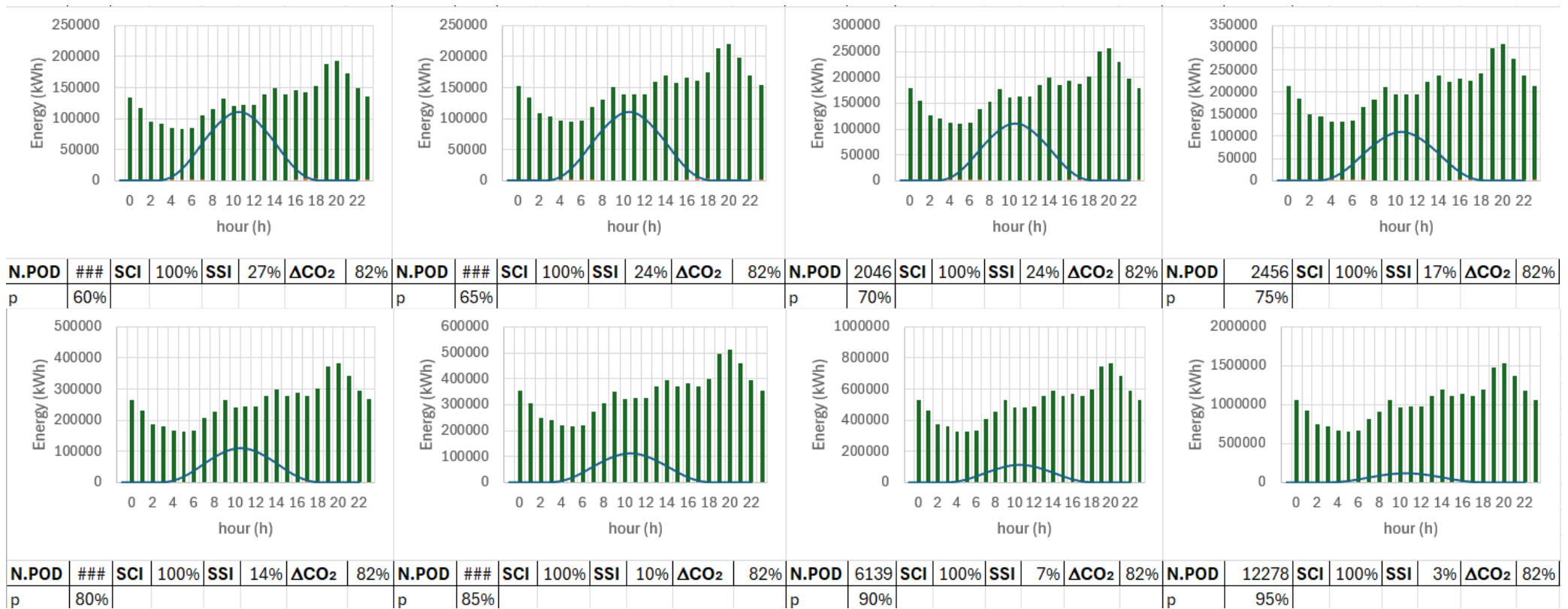


<b>N.POD</b>	###	<b>SCI</b>	91%	<b>SSI</b>	37%	<b>ΔCO<sub>2</sub></b>	80%
<b>p</b>	40%						

<b>N.POD</b>	###	<b>SCI</b>	94%	<b>SSI</b>	35%	<b>ΔCO<sub>2</sub></b>	81%
<b>p</b>	45%						

<b>N.POD</b>	1228	<b>SCI</b>	97%	<b>SSI</b>	33%	<b>ΔCO<sub>2</sub></b>	81%
<b>p</b>	50%						

<b>N.POD</b>	1364	<b>SCI</b>	100%	<b>SSI</b>	31%	<b>ΔCO<sub>2</sub></b>	82%
<b>p</b>	55%						



Graphical representation of results

## Case E

Hour (h)	Eprod	Esc
[h]	[kWh]	[kWh]
0	0,00	1095,00
1	0,00	1095,00
2	0,00	1095,00
3	0,00	1095,00
4	123,62	1095,00
5	2609,95	1095,00
6	8106,13	1095,00
7	19999,22	1095,00
8	34339,07	1602,90
9	46664,72	1602,90
10	56650,54	1602,90
11	62670,67	1602,90
12	62830,11	1602,90
13	57062,35	1602,90
14	47230,17	1335,75
15	34993,50	0,00
16	21072,43	1407,00
17	9608,54	2430,75
18	2936,53	2430,75
19	164,84	1095,00
20	0,00	1095,00
21	0,00	1095,00
22	0,00	1095,00
23	0,00	1095,00

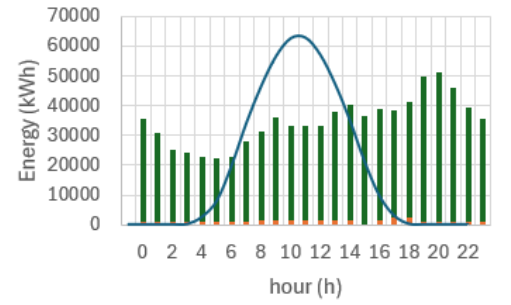
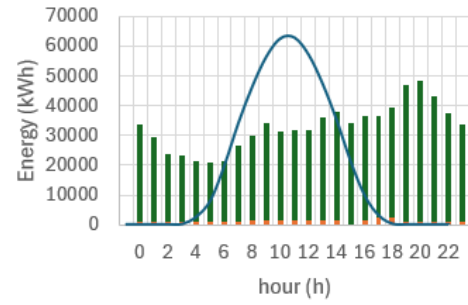
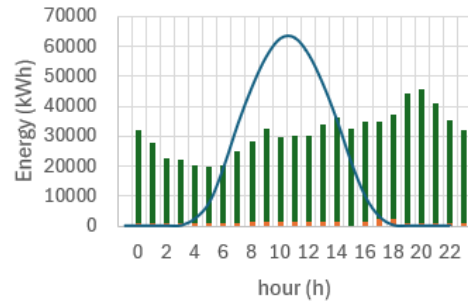
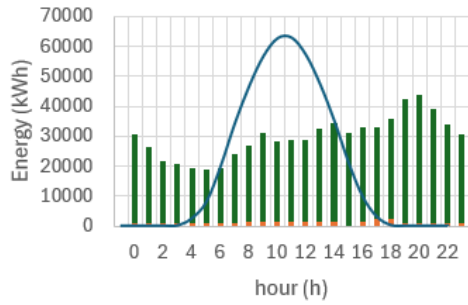
Hours of energy produced and self-consumed by the hub in a year

Hours	Hourly needs of a household in one year [kWh]																			
0	29367	30913	32630	34549	36709	39156	41953	45180	48945	53394	58734	65260	73417	83905	97890	117468	146834	195779	293669	587338
1	25467	26808	28297	29962	31834	33957	36382	39181	42446	46304	50935	56594	63669	72764	84892	101870	127337	169783	254675	509349
2	20595	21679	22884	24230	25744	27460	29422	31685	34325	37446	41190	45767	51488	58844	68651	82381	102976	137302	205952	411905
3	19788	20830	21987	23280	24735	26384	28269	30443	32980	35978	39576	43974	49470	56538	65960	79153	98941	131921	197881	395763
4	18252	19213	20280	21473	22815	24336	26075	28080	30420	33186	36504	40561	45631	52149	60841	73009	91261	121682	182522	365045
5	17969	18915	19966	21140	22462	23959	25671	27645	29949	32672	35939	39932	44924	51341	59898	71878	89847	119796	179694	359388
6	18320	19284	20356	21553	22900	24427	26172	28185	30533	33309	36640	40711	45800	52343	61067	73280	91600	122134	183201	366402
7	22731	23928	25257	26743	28414	30309	32474	34972	37886	41330	45463	50514	56829	64947	75772	90926	113657	151543	227315	454630
8	25394	26731	28216	29876	31743	33859	36277	39068	42324	46171	50788	56432	63486	72555	84647	101577	126971	169295	253942	507885
9	29263	30803	32514	34427	36578	39017	41804	45020	48771	53205	58525	65028	73157	83608	97542	117051	146314	195085	292627	585254
10	26793	28203	29769	31521	33491	35723	38275	41219	44654	48714	53585	59539	66981	76550	89308	107170	133963	178617	267925	535850
11	26969	28389	29966	31729	33712	35959	38528	41491	44949	49035	53939	59932	67423	77055	89898	107877	134846	179795	269693	539386
12	27025	28447	30027	31794	33781	36033	38606	41576	45041	49135	54049	60054	67561	77213	90082	108098	135123	180163	270245	540490
13	30874	32499	34304	36322	38592	41165	44105	47498	51456	56134	61748	68608	77184	88211	102913	123495	154369	205825	308738	617475
14	33000	34736	36666	38823	41249	43999	47142	50769	54999	59999	65999	73332	82499	94285	109999	131998	164998	219997	329996	659992
15	30896	32522	34329	36348	38620	41195	44137	47533	51494	56175	61792	68658	77240	88275	102987	123585	154481	205974	308962	617923
16	31694	33362	35216	37287	39618	42259	45277	48760	52824	57626	63388	70431	79235	90555	105647	126776	158471	211294	316941	633882
17	30777	32397	34196	36208	38471	41036	43967	47349	51295	55958	61554	68393	76942	87934	102589	123107	153884	205179	307768	615537
18	33180	34926	36866	39035	41474	44239	47399	51045	55299	60326	66359	73732	82949	94799	110598	132718	165898	221197	331795	663590
19	41229	43399	45810	48505	51537	54972	58899	63430	68715	74962	82459	91621	103073	117798	137431	164917	206146	274862	412293	824586
20	42476	44712	47196	49972	53095	56635	60681	65348	70794	77230	84953	94392	106191	121361	141588	169906	212382	283176	424764	849528
21	38028	40030	42254	44739	47535	50705	54326	58505	63381	69143	76057	84508	95071	108653	126761	152114	190142	253523	380284	760568
22	32589	34304	36210	38340	40737	43452	46556	50137	54315	59253	65179	72421	81473	93112	108631	130357	162946	217262	325893	651785
23	29480	31031	32755	34682	36849	39306	42114	45353	49133	53599	58959	65510	73699	84227	98265	117918	147398	196530	294796	589591
N. PODs	342	360	380	402	427	456	488	526	570	622	684	760	855	977	1140	1368	1710	2280	3419	6839

Hourly requirements of a household in a year inherent in the number of PODs

N. POD	Eprod	Einj	Esc	Ewith	Esh	Eto,grid	Econs	Ue	SCI	SSI	e0	eCER	DCO2
[-]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[kWh]	[%]	[%]	[kgCO2]	[kgCO2]	[%]
342	467062,39	444365,74	22696,65	284486,29	284486,29	159879,45	307182,94	682157,04	66%	45%	84782,49	23353,12	72%
360				296602,75	296602,75	147762,99	319299,40	718060,04	68%	44%	88126,634	23353,12	74%
380				310065,48	310065,48	134300,26	332762,13	757952,26	71%	44%	91842,349	23353,12	75%
402				323757,14	323757,14	120608,60	346453,79	802537,69	74%	43%	95621,247	23353,12	76%
427				338412,78	338412,78	105952,96	361109,43	852696,30	77%	42%	99666,201	23353,12	77%
456				353899,69	353899,69	90466,05	376596,34	909542,71	81%	41%	103940,59	23353,12	78%
488				369215,87	369215,87	75149,87	391912,52	974510,05	84%	40%	108167,86	23353,12	78%
526				384701,89	384701,89	59663,85	407398,54	1049472,36	87%	39%	112442	23353,12	79%
570				399059,53	399059,53	45306,21	421756,18	1136928,39	90%	37%	116404,71	23353,12	80%
622				415303,08	415303,08	29062,66	437999,73	1240285,52	94%	35%	120887,93	23353,12	81%
684				429991,50	429991,50	14374,24	452688,15	1364314,07	97%	33%	124941,93	23353,12	81%
760				443452,72	443452,72	913,02	466149,37	1515904,52	100%	31%	128657,23	23353,12	82%
855				445761,50	444365,74	0,00	468458,15	1705392,59	100%	27%	129294,45	23738,349	82%
977				445761,50	444365,74	0,00	468458,15	1949020,10	100%	24%	129294,45	23738,349	82%
1140				445761,50	444365,74	0,00	468458,15	2273856,79	100%	21%	129294,45	23738,349	82%
1368				445761,50	444365,74	0,00	468458,15	2728628,14	100%	17%	129294,45	23738,349	82%
1710				445761,50	444365,74	0,00	468458,15	3410785,18	100%	14%	129294,45	23738,349	82%
2280				445761,50	444365,74	0,00	468458,15	4547713,57	100%	10%	129294,45	23738,349	82%
3419				445761,50	444365,74	0,00	468458,15	6821570,36	100%	7%	129294,45	23738,349	82%
6839				445761,50	444365,74	0,00	468458,15	13643140,72	100%	3%	129294,45	23738,349	82%

Energy values of the number of PODs. Identified indicators: SCI = Self-consumption index; SSI = Self-sufficiency index;  $\Delta\text{CO}_2$  =  $\text{CO}_2$  Index

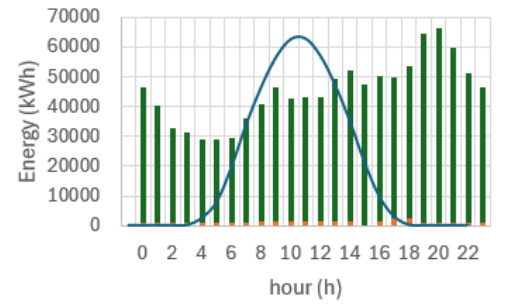
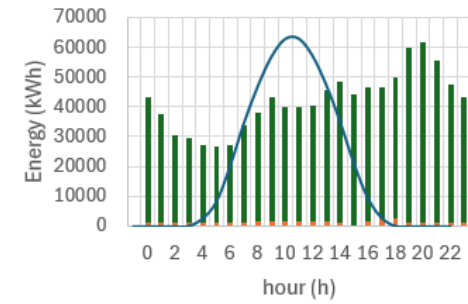
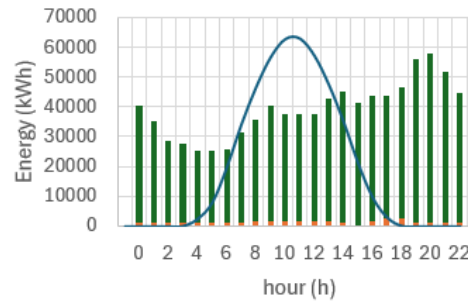
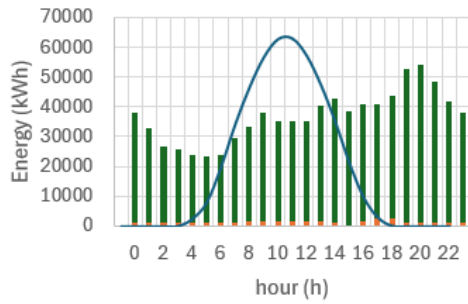


<b>N.POD</b>	342	<b>SCI</b>	66%	<b>SSI</b>	45%	<b>ΔCO<sub>2</sub></b>	72%
<b>p</b>	0%						

<b>N.POD</b>	360	<b>SCI</b>	68%	<b>SSI</b>	44%	<b>ΔCO<sub>2</sub></b>	74%
<b>p</b>	5%						

<b>N.POD</b>	380	<b>SCI</b>	71%	<b>SSI</b>	44%	<b>ΔCO<sub>2</sub></b>	75%
<b>p</b>	10%						

<b>N.POD</b>	402	<b>SCI</b>	74%	<b>SSI</b>	43%	<b>ΔCO<sub>2</sub></b>	76%
<b>p</b>	15%						

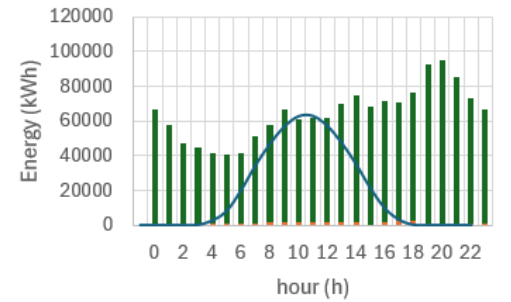
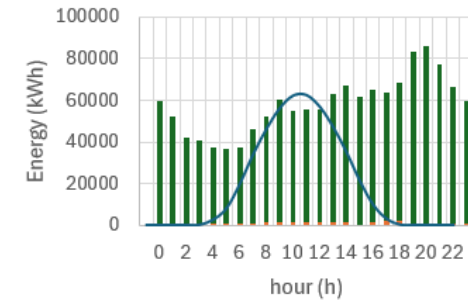
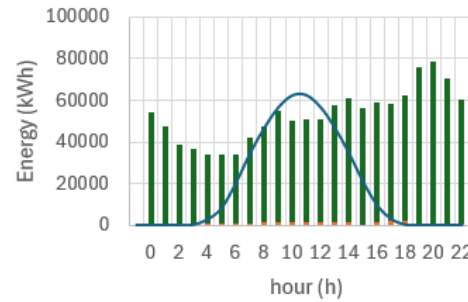
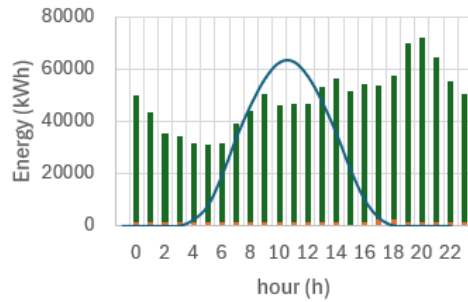


<b>N.POD</b>	427	<b>SCI</b>	77%	<b>SSI</b>	42%	<b>ΔCO<sub>2</sub></b>	77%
<b>p</b>	20%						

<b>N.POD</b>	456	<b>SCI</b>	77%	<b>SSI</b>	42%	<b>ΔCO<sub>2</sub></b>	77%
<b>p</b>	25%						

<b>N.POD</b>	488	<b>SCI</b>	81%	<b>SSI</b>	41%	<b>ΔCO<sub>2</sub></b>	78%
<b>p</b>	30%						

<b>N.POD</b>	526	<b>SCI</b>	87%	<b>SSI</b>	39%	<b>ΔCO<sub>2</sub></b>	79%
<b>p</b>	35%						



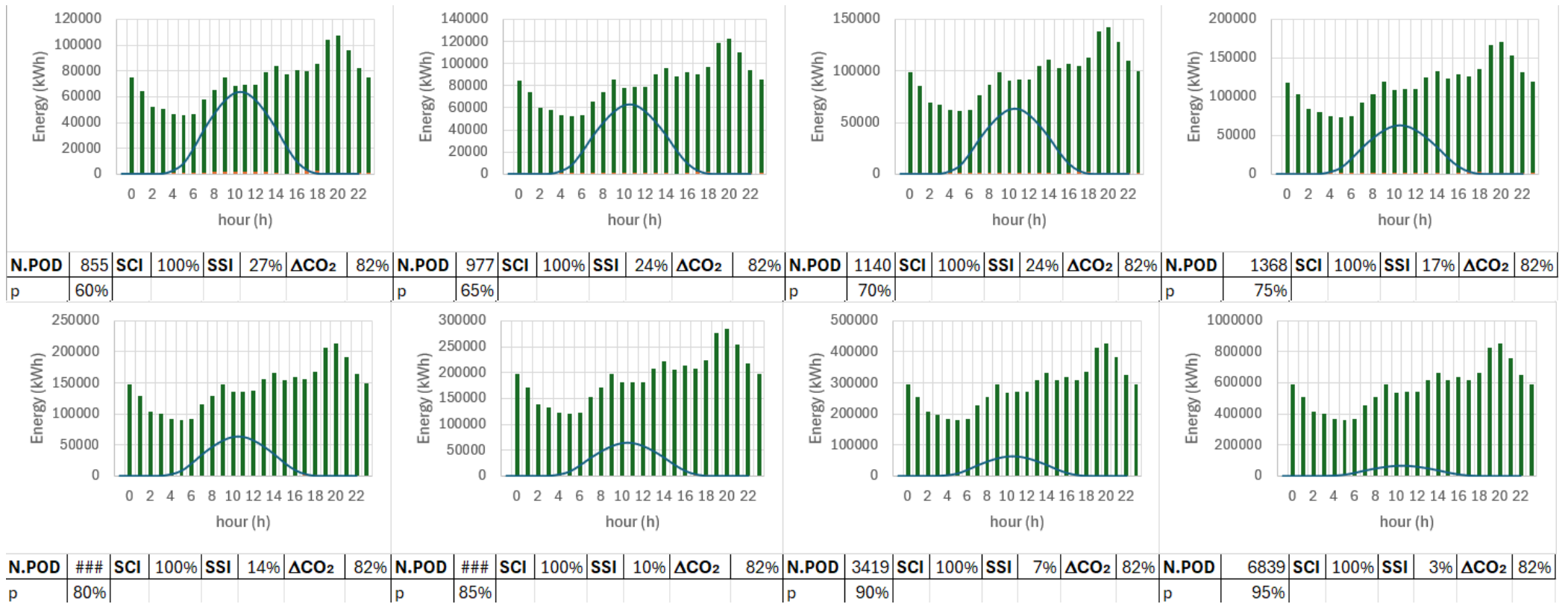
<b>N.POD</b>	570	<b>SCI</b>	90%	<b>SSI</b>	37%	<b>ΔCO<sub>2</sub></b>	80%
<b>p</b>	40%						

<b>N.POD</b>	622	<b>SCI</b>	94%	<b>SSI</b>	35%	<b>ΔCO<sub>2</sub></b>	81%
<b>p</b>	45%						

<b>N.POD</b>	684	<b>SCI</b>	97%	<b>SSI</b>	33%	<b>ΔCO<sub>2</sub></b>	81%
<b>p</b>	50%						

<b>N.POD</b>	760	<b>SCI</b>	100%	<b>SSI</b>	31%	<b>ΔCO<sub>2</sub></b>	82%
<b>p</b>	55%						





Graphical representation of results