

EECC 2015

Distributed Generation in the Eco-Park

Part 1: Microgrid Statistics

Eco-Park Electricity Usage By Month 2013-2014

year/month	Utility Charge				
	Usage (kwh)	Compared with last month	Unit price (CNY/kwh)	Compared with previous month	Amount (CNY¥)
2013/12	186082		0.79		172582.02
2014/1	130342	-55740	0.80	0.01	104684.68
2014/2	173682	43340	0.79	-0.01	137726.65
2014/3	130642	-43040	0.78	-0.01	102270.27
2014/4	77902	-52740	0.76	-0.02	69321.77
2014/5	74682	-3220	0.75	-0.01	66180.93
2014/6	139862	65180	0.77	0.02	107694
2014/7	155902	16040	0.79	0.02	144184.17
2014/8	170782	14880	0.79	0	134917.78
2014/9	128882	-41900	0.78	-0.01	117672.19
2014/10	72082	-56800	0.75	-0.03	63610.9

Heat Pump Electricity Usage By Month 2013-2014

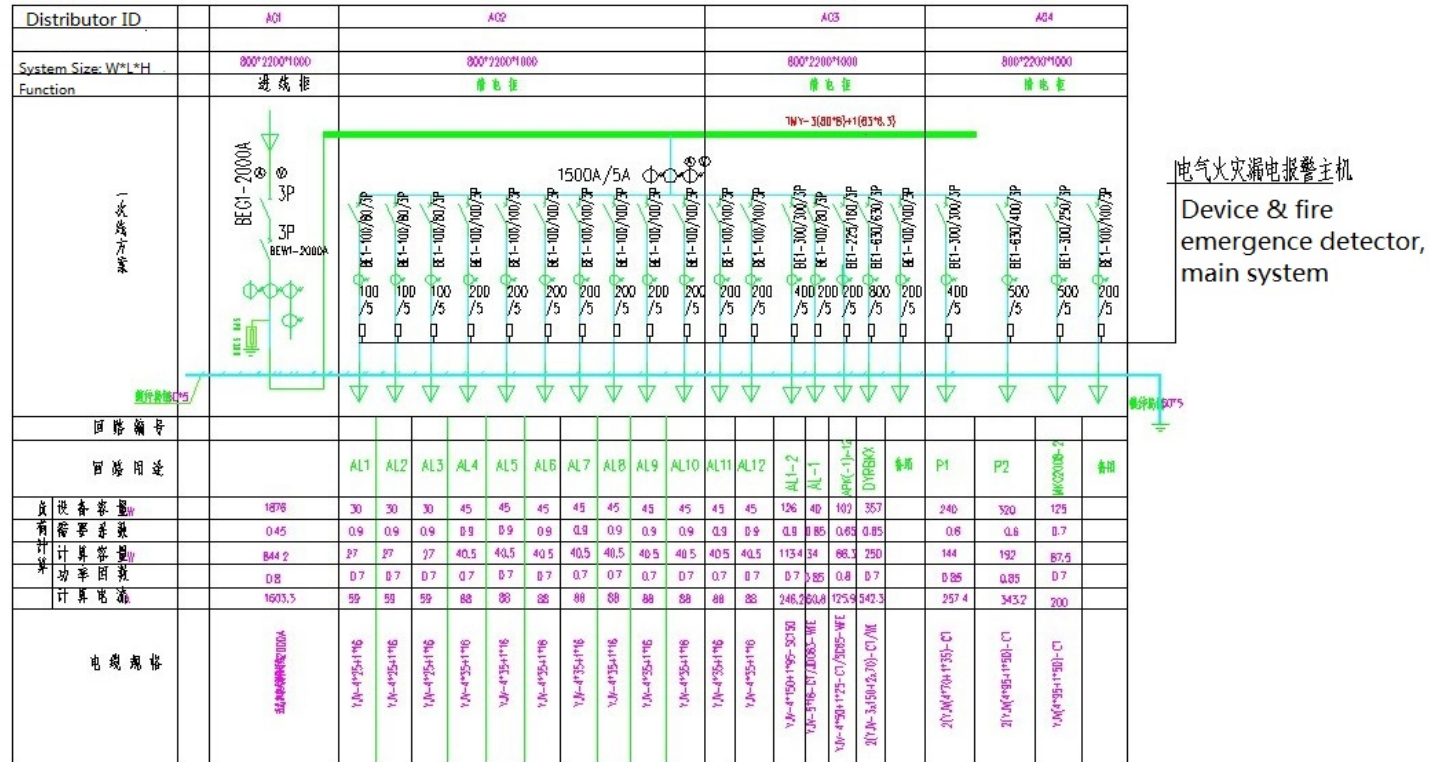
	11/1/2013	12/1/2013	1/1/2014	2/1/2014	6/2/2014	7/2/2014	8/2/2014	9/2/2014
Main Motor load	20200	38420	34820	34940	21420	35140	30040	7400
Water pump load	9948	15624	16848	16632	11112	20094	17712	5532
Heat pump load	87500	173720	163900	165510	112570	119855	116780	10600
Total load	30148	54044	51668	51572	32532	55234	47752	12932

South Complex Heat Pump and Power System Usage By Month 2013-2014

	11/1/13	12/1/13	1/1/14	2/1/14	6/2/14	7/2/14	8/2/14	9/2/14
Main motor load	20200	38420	34820	34940	21420	35140	30040	7400
Water pump load	9948	15624	16848	16632	11112	20094	17712	5532
Heat pump load	87500	173720	163900	165510	112570	119855	116780	24900
System total load	30148	54044	51668	51572	32532	55234	47752	12932
Ground Source Heating/cooling load	55010	98400	87910	90180	170560	151270	182660	43190
System coefficient of performance (COP)	2.902348 414	3.214417 882	3.172176 202	3.209299 62	3.460285 258	2.169949 669	2.445552 019	1.925456 233
Device COP	4.331683 168	4.521603 332	4.707064 905	4.736977 676	5.255368 814	3.410785 43	3.887483 356	3.364864 865

Part 2: Grid Schematic Diagram

* More diagrams can be found within AutoCAD files under "references".



低压配电柜一 Low-voltage distribution center I