

ENERGY ANALYSIS FOR NEW AIR CONDITIONING SYSTEM

NEW SYSTEM

Month	Thermal energy (KWHx1000)	Boiler room thermal energy (KWHx1000)	Boiler room LPG cost (€)	Heat pump thermal energy (KWHx1000)	Heat pump electric consumption (KWHx1000)	Electric cost for heating (€)	Cooling energy (KWHx1000)	Electric consumption for cooling (KWHx1000)	Electric cost for cooling (€)	Air conditioning energy cost (€)
January	0	0	0	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0	0	0	0
March	690	203	14.206	518	136	13.618	0	0	0	27.824
April	710	209	14.618	533	140	14.013	0	0	0	28.631
May	930	274	19.147	698	184	18.355	393	69	6.895	44.397
June	1100	324	22.647	825	217	21.711	935	164	16.404	60.761
July	1020	300	21.000	765	201	20.132	2051	360	35.982	77.114
August	1040	306	21.412	780	205	20.526	2000	351	35.088	77.026
September	1020	300	21.000	765	201	20.132	1192	209	20.912	62.044
October	720	212	14.824	540	142	14.211	305	54	5.351	34.385
November	0	0	0	0	0	0	0	0	0	0
December	0	0	0	0	0	0	0	0	0	0
Annual Total	7.230	2.126	148.853	5423	1.427	142.697	6.876	1.206	120.632	412.182

Annual operating cost of boilers and water-cool chillers :

$$148.853\text{€} + 142.697\text{€} + 120.632\text{€} = 412.182\text{€}$$

ANNUAL ENERGY COST SAVINGS
775.061€ - 412.182€ = 362.879€ → 47%

New System Air Conditioning Energy Cost



