

HartlePool EXERGY BALANCE

	<i>Q_th (kW)</i>	<i>η_energy</i>			
component	Resource	Product	Exergy efficiency	Irreversibilities	% total
feedwater pump	10,545.89	9,839.15	93.30%	706.74	0.17%
turbine	182,781.56	167,834.33	91.82%	14,947.23	3.58%
IP turbine	283,846.51	263,806.06	92.94%	20,040.45	4.80%
LP2 turbine	58,250.45	52,314.47	89.81%	5,935.98	1.42%
IP3 turbine	52,564.62	46,496.88	88.46%	6,067.74	1.45%
extraction pump	376.94	341.04	90.48%	35.90	0.01%
blower	43,470.93	41,267.32	94.93%	2,203.61	0.53%
LP1_turbine	67,751.99	61,628.42	90.96%	6,123.57	1.47%
LP4 turbine	160,270.87	137,650.73	85.89%	22,620.14	5.42%
FWH1	13,707.44	7,218.23	52.66%	6,489.21	1.55%
condenser inlet	41,292.96	41,273.56	99.95%	19.40	0.00%
FWH2	16,426.64	12,599.94	76.70%	3,826.70	0.92%
FWH3	18,908.11	16,542.14	87.49%	2,365.97	0.57%
FWH4	19,305.83	17,577.37	91.05%	1,728.46	0.41%
economizer	290,673.84	244,480.57	0.00%	46,193.27	11.06% economizer-c_eco
evaporator	240,748.10	212,841.43	0.00%	27,906.66	6.68% evaporator-c_evap
reheater	160,646.86	135,622.29	0.00%	25,024.58	5.99% reheater-c_reheat
superheater	286,383.34	257,444.66	0.00%	28,938.68	6.93% superheater-c_superheat
condenser	40,635.71	0.00	0.00%	40,635.71	9.73% Tk = 15,00 °C
Reactor core	1,092,873.16	937,184.82	85.75%	155,688.34	37.29% Tk = 699,00 °C
global	1,092,873.16	675,374.83	61.80%	417,498.33	100.00%
T0 = 288,15 K	1,553,269.95	43.48%			