ABWR EXERGY BALANCE

	Q_th (kW)	*η_energy*				
component	**Resource**	**Product**	**Exergy efficiency**	**Irreversibilities**	**% total**	
extraction pump	8,082.06	6,637.28	82.12%	1,444.78	0.25%	
FWH_LP1	25,352.98	19,357.43	76.35%	5,995.56	1.02%	
FWH_LP2	31,638.12	26,244.57	82.95%	5,393.55	0.92%	
FWH_LP3	34,758.29	30,176.35	86.82%	4,581.94	0.78%	
FWH_LP4	41,671.71	36,946.24	88.66%	4,725.47	0.80%	
HP vane	841.43	0.00	0.00%	841.43	0.14%	
Reheater vane	910.64	0.00	0.00%	910.64	0.15%	
HP1 turbine	351,160.85	305,977.98	87.13%	45,182.87	7.67%	
LP2 turbine	159,703.73	145,101.09	90.86%	14,602.64	2.48%	
Feedwater heater	194,796.55	191,878.50	98.50%	2,918.04	0.50%	
Feedwater pump	16,653.98	16,070.51	96.50%	583.47	0.10%	
SG inlet vane	236.58	0.00	0.00%	236.58	0.04%	
LP3 turbine	151,042.87	126,093.56	83.48%	24,949.31	4.23%	
LP4 turbine	163,544.90	116,190.90	71.05%	47,354.01	8.03%	
LP5 turbine	111,564.58	96,374.75	86.38%	15,189.83	2.58%	
Condenser inlet	305,367.87	297,008.08	97.26%	8,359.79	1.42%	
HP2 turbine	185,599.74	158,683.95	85.50%	26,915.78	4.57%	
LP vane	8,580.49	0.00	0.00%	8,580.49	1.46%	
LP1 turbine	338,110.45	330,097.34	97.63%	8,013.11	1.36%	
LP6 turbine	128,510.28	113,358.06	88.21%	15,152.22	2.57%	
HP5 mixer	154,508.63	154,508.63	100.00%	0.00	0.00%	
FWH_HP6	133,824.64	121,721.85	90.96%	12,102.79	2.05%	
mix_LP1	24,766.85	23,426.68	94.59%	1,340.17	0.23%	
mix_LP2	31,010.85	31,010.85	100.00%	0.00	0.00%	
mix_LP3	35,759.72	35,759.72	100.00%	0.00	0.00%	
FWH_HP5	139,899.73	126,201.94	90.21%	13,697.80	2.32%	
?	55,777.70	54,437.53	1.95%	1,340.17	0.23%	mix_LP1-mix_LP2
mix_LP3	35,759.72	35,759.72	100.00%	0.00	0.00%	?
Reheater	148,657.49	123,315.50	0.00%	25,341.99	4.30%	Reheat-Reheater
Steam generator	2,132,399.20	1,948,599.99	91.38%	183,799.21	31.19%	Tk = 330,00 °C
Condenser	285,580.21	175,754.91	61.54%	109,825.30	18.63%	Tk = 35,00 °C
global	**2,132,399.20**	**1,543,020.24**	**72.36%**	**589,378.95**	**100.00%**	
T0 = 288,15 K	***4,083,036.75***	***37.79%***				