

NuScale 77 EXERGY BALANCE

		Q_{th} (kW)	η_{energy}		
component	Resource	Product	Exergy efficiency	Irreversibilities	% total
extraction pump		192.78	157.18	81.54%	35.60 0.07%
FWH2		2,097.01	1,844.66	87.97%	252.35 0.49%
FWH3		2,291.43	2,071.74	90.41%	219.69 0.43%
FWH1		3,349.32	2,376.47	70.95%	972.85 1.89%
Turbine 1		47,148.21	42,371.66	89.87%	4,776.55 9.30%
Secondary pump		330.23	281.58	85.27%	48.65 0.09%
SG inlet vane		12.80	0.00	0.00%	12.80 0.02%
Condenser inlet		14,308.67	14,306.01	99.98%	2.67 0.01%
Turbine 2		9,240.18	6,627.89	71.73%	2,612.29 5.09%
Turbine 4		23,110.71	13,432.56	58.12%	9,678.15 18.84%
Turbine 3		9,691.27	6,796.75	70.13%	2,894.52 5.64%
Vane		1,163.12	0.00	0.00%	1,163.12 2.26%
Condenser		13,912.38	7,803.71	56.09%	6,108.67 11.89% Tk = 28,00 °C
Steam generator		127,880.23	105,300.56	82.34%	22,579.67 43.97% Tk = 318,00 °C
global		127,880.23	76,522.67	59.84%	51,357.56 100.00%
$T_0 = 288,15\text{ K}$		249,493.06	30.67%		