

Sheet2

Year n	actual Build cost	discounted Build cost	actual O&M cost	discounted O&M cost	discounted cumulative cost
\$0.00	\$1,020.00	\$1,020.00	\$37.50	\$37.50	\$1,057.50
\$1.00	0	\$0.00	\$37.50	\$35.71	\$1,093.21
\$2.00	0	\$0.00	\$37.50	\$34.01	\$1,127.23
\$3.00	0	\$0.00	\$37.50	\$32.39	\$1,159.62
\$4.00	0	\$0.00	\$37.50	\$30.85	\$1,190.47
\$5.00	0	\$0.00	\$37.50	\$29.38	\$1,219.86
\$6.00	0	\$0.00	\$37.50	\$27.98	\$1,247.84
\$7.00	0	\$0.00	\$37.50	\$26.65	\$1,274.49
\$8.00	0	\$0.00	\$37.50	\$25.38	\$1,299.87
\$9.00	0	\$0.00	\$37.50	\$24.17	\$1,324.04
\$10.00	0	\$0.00	\$37.50	\$23.02	\$1,347.07
\$11.00	0	\$0.00	\$37.50	\$21.93	\$1,368.99
\$12.00	0	\$0.00	\$37.50	\$20.88	\$1,389.87
\$13.00	0	\$0.00	\$37.50	\$19.89	\$1,409.76
\$14.00	0	\$0.00	\$37.50	\$18.94	\$1,428.70
\$15.00	235	\$113.04	\$37.50	\$18.04	\$1,559.78
\$16.00	0	\$0.00	\$37.50	\$17.18	\$1,576.96
\$17.00	0	\$0.00	\$37.50	\$16.36	\$1,593.32
\$18.00	0	\$0.00	\$37.50	\$15.58	\$1,608.90
\$19.00	0	\$0.00	\$37.50	\$14.84	\$1,623.74
\$20.00	0	\$0.00	\$37.50	\$14.13	\$1,637.87
\$21.00	0	\$0.00	\$37.50	\$13.46	\$1,651.33
\$22.00	0	\$0.00	\$37.50	\$12.82	\$1,664.15
\$23.00	0	\$0.00	\$37.50	\$12.21	\$1,676.36
\$24.00	0	\$0.00	\$37.50	\$11.63	\$1,687.99
\$25.00	0	\$0.00	\$37.50	\$11.07	\$1,699.06
\$26.00	0	\$0.00	\$37.50	\$10.55	\$1,709.61
\$27.00	0	\$0.00	\$37.50	\$10.04	\$1,719.65
\$28.00	0	\$0.00	\$37.50	\$9.57	\$1,729.22
\$29.00	0	\$0.00	\$37.50	\$9.11	\$1,738.33
\$30.00	480	\$111.06	\$37.50	\$8.68	\$1,858.07
\$31.00	0	\$0.00	\$37.50	\$8.26	\$1,866.33
\$32.00	0	\$0.00	\$37.50	\$7.87	\$1,874.20
\$33.00	0	\$0.00	\$37.50	\$7.50	\$1,881.70
\$34.00	0	\$0.00	\$37.50	\$7.14	\$1,888.83
\$35.00	0	\$0.00	\$37.50	\$6.80	\$1,895.63
\$36.00	0	\$0.00	\$37.50	\$6.47	\$1,902.11
\$37.00	0	\$0.00	\$37.50	\$6.17	\$1,908.27
\$38.00	0	\$0.00	\$37.50	\$5.87	\$1,914.15
\$39.00	0	\$0.00	\$37.50	\$5.59	\$1,919.74
\$40.00	0	\$0.00	\$37.50	\$5.33	\$1,925.07
\$41.00	0	\$0.00	\$37.50	\$5.07	\$1,930.14
\$42.00	0	\$0.00	\$37.50	\$4.83	\$1,934.97
\$43.00	0	\$0.00	\$37.50	\$4.60	\$1,939.57
\$44.00	0	\$0.00	\$37.50	\$4.38	\$1,943.95
\$45.00	235	\$26.15	\$37.50	\$4.17	\$1,974.28
\$46.00	0	\$0.00	\$37.50	\$3.97	\$1,978.26
\$47.00	0	\$0.00	\$37.50	\$3.79	\$1,982.04
\$48.00	0	\$0.00	\$37.50	\$3.61	\$1,985.65

Sheet2

\$49.00	0	\$0.00	\$37.50	\$3.43	\$1,989.08
\$50.00	0	\$0.00	\$37.50	\$3.27	\$1,992.35
Decommission = 1%	\$1,970.00	\$171.79			\$2,164.14

All values are in units of \$ /kW

Energy source is Onshore wind

Assumed discount rate is 5% /yr

Levelized cost of Power = \$2,164.14 \$ /kW

Capacity Factor = 37.9%

Levelized Cost of Energy – LCOE = $\$2164.14 \div 166.002$ \$13.04 /MWh

	Actual Build cost	Discounted Build cost	Actual O&M cost	Discounted O&M cost	Cumulative cost	Yearly energy
Year n	\$3,370 /kW					average
	\$700	700.00	\$179.44	\$179.44	\$879.44	8.059
1	\$700	686.27	\$179.44	\$175.92	\$1,741.64	8.059
2	\$700	672.82	\$179.44	\$172.47	\$2,586.93	8.059
3	\$700	659.63	\$179.44	\$169.09	\$3,415.64	8.059
4	\$570	526.59	\$179.44	\$165.77	\$4,108.01	8.059
5	0	0	\$179.44	\$162.52	\$4,270.53	8.059
6	0	0	\$179.44	\$159.34	\$4,429.87	8.059
7	0	0	\$179.44	\$156.21	\$4,586.08	8.059
8	0	0	\$179.44	\$153.15	\$4,739.23	8.059
9	0	0	\$179.44	\$150.15	\$4,889.38	8.059
10	0	0	\$179.44	\$147.20	\$5,036.59	8.059
11	0	0	\$179.44	\$144.32	\$5,180.90	8.059
12	0	0	\$179.44	\$141.49	\$5,322.39	8.059
13	0	0	\$179.44	\$138.71	\$5,461.10	8.059
14	0	0	\$179.44	\$135.99	\$5,597.10	8.059
15	0	0	\$179.44	\$133.33	\$5,730.42	8.059
16	0	0	\$179.44	\$130.71	\$5,861.13	8.059
17	0	0	\$179.44	\$128.15	\$5,989.28	8.059
18	0	0	\$179.44	\$125.64	\$6,114.92	8.059
19	0	0	\$179.44	\$123.17	\$6,238.09	8.059
20	0	0	\$179.44	\$120.76	\$6,358.85	8.059
21	0	0	\$179.44	\$118.39	\$6,477.24	8.059
22	0	0	\$179.44	\$116.07	\$6,593.31	8.059
23	0	0	\$179.44	\$113.79	\$6,707.10	8.059
24	0	0	\$179.44	\$111.56	\$6,818.66	8.059
25	0	0	\$179.44	\$109.37	\$6,928.04	8.059
26	0	0	\$179.44	\$107.23	\$7,035.27	8.059
27	0	0	\$179.44	\$105.13	\$7,140.40	8.059
28	0	0	\$179.44	\$103.07	\$7,243.46	8.059
29	0	0	\$179.44	\$101.04	\$7,344.51	8.059
30	0	0	\$179.44	\$99.06	\$7,443.57	8.059
31	0	0	\$179.44	\$97.12	\$7,540.69	8.059
32	0	0	\$179.44	\$95.22	\$7,635.91	8.059
33	0	0	\$179.44	\$93.35	\$7,729.26	8.059
34	0	0	\$179.44	\$91.52	\$7,820.78	8.059
35	0	0	\$179.44	\$89.72	\$7,910.50	8.059
36	0	0	\$179.44	\$87.97	\$7,998.47	8.059
37	0	0	\$179.44	\$86.24	\$8,084.71	8.059
38	0	0	\$179.44	\$84.55	\$8,169.26	8.059
39	0	0	\$179.44	\$82.89	\$8,252.15	8.059
40	0	0	\$179.44	\$81.27	\$8,333.42	8.059
41	0	0	\$179.44	\$79.67	\$8,413.09	8.059
42	0	0	\$179.44	\$78.11	\$8,491.20	8.059
43	0	0	\$179.44	\$76.58	\$8,567.78	8.059
44	0	0	\$179.44	\$75.08	\$8,642.86	8.059
45	0	0	\$179.44	\$73.61	\$8,716.46	8.059
46	0	0	\$179.44	\$72.16	\$8,788.63	8.059

Sheet1

47	0	0	\$179.44	\$70.75	\$8,859.37	8.059
48	0	0	\$179.44	\$69.36	\$8,928.73	8.059
49	0	0	\$179.44	\$68.00	\$8,996.74	8.059
50	0	0	\$179.44	\$66.67	\$9,063.40	8.059
51	0	0	\$179.44	\$65.36	\$9,128.76	8.059
52	0	0	\$179.44	\$64.08	\$9,192.84	8.059
53	0	0	\$179.44	\$62.82	\$9,255.66	8.059
54	0	0	\$179.44	\$61.59	\$9,317.25	8.059
55	0	0	\$179.44	\$60.38	\$9,377.63	8.059
56	0	0	\$179.44	\$59.20	\$9,436.83	8.059
57	0	0	\$179.44	\$58.04	\$9,494.87	8.059
58	0	0	\$179.44	\$56.90	\$9,551.77	8.059
59	0	0	\$179.44	\$55.78	\$9,607.55	8.059
60	0	0	\$179.44	\$54.69	\$9,662.24	8.059
Total BLDG cost	\$3,370.00	No replacements performed	Actual lifetime energy (MWh)		491.61	
Decom = 2%	\$67.40		Levelized Cost of Power (\$/kW)		\$9,729.64	include decom
All the above values are in units of \$ /kW						
Levelized Cost of Energy – LCOE (\$/MWh)					\$33.76	← → Leve

Sheet1

			discoun
Source is Nuclear w/ CF = 92%	0.92	8.0592	average yearly energy
Assumed discount rate is 2% /year			
Levelized Cost of Power in \$ /kW units	\$9,729.64	from Column F above, after year 60	
Conversion factor from Power to Actual Energy	0.00206803	for CF = 0.92	Conversion = 1 ÷ (CF x 8760 h /yr x 60
Levelized Cost of Energy	\$33.76 /MWh	LCOE	

Discounted yearly energy	Remarks
in MWh	Nuclear @2%
8.059	Initial construction
7.901	assumed
7.746	to take 5 years
7.594	
7.445	Total CAPEX = \$3,370 /kW
7.299	
7.156	Columns A through F
7.016	are nominal dollars
6.878	per kilowatt
6.744	of peak generating
6.611	capacity
6.482	
6.355	
6.230	
6.108	
5.988	
5.871	
5.756	
5.643	
5.532	
5.424	
5.317	
5.213	
5.111	
5.011	
4.912	
4.816	
4.722	
4.629	
4.538	
4.449	
4.362	
4.276	
4.193	
4.110	
4.030	
3.951	
3.873	
3.797	
3.723	
3.650	
3.578	
3.508	
3.439	
3.372	
3.306	
3.241	

3.177
3.115
3.054
2.994
2.936
2.878
2.822
2.766
2.712
2.659
2.607
2.556
2.505
2.456
288.20

Discounted lifetime energy (MWh)

mission from column A

Normalized cost of power

divided by
ted lifetime energy

yrs /1000 kW per MW)