

**Project Analysis Worksheet: Nominal Dollar Analysis
2020 Tower 220 @ 73% , New SunLab
Case No.5**

Assumptions:

Equity rate of return	14.00%	Target
Required DSCR	1.35	1.35

280.66 capacity charge, \$/kW/year (constant for analysis period)
0 HHV heat rate, Btu/kWh

Solar fuel type
4,920 fixed non-fuel O&M cost, \$1000/year in base year
0.00 variable non-fuel O&M cost, \$/MWh in base year
5 MACRS depreciation schedule to be used (yrs)
98.0% percentage of investment cost which is depreciable, excluding IDC
8.55% is computed fixed charge rate (from macro)

59.9%
40.1%
7.00%
Y
8.66%

Percent debt in capital structure
Percent equity in capital structure
Cost of construction debt, %/year
Entity is subject to income tax (Y/N)
Initial weighted after-tax cost of capital (computed)

Net MW
Capacity factor
Avg. years lead time for capital spending before COD
Starting year of analysis

Before ITC adjustment:	Depreciable	Amortize	Total
Solar inv. exd IDC	661.80	13.51	675.31
IDC	0.00	47.27	47.27
Total	661.80	60.78	722.58
ITC amount:	66.18		
Depreciable After ITC adjustment	628.71		

Sources of Funds	\$ Millions	Term	Interest	Amort \$M/yr.
Equity	289.75			
Debt	432.83	20	8.50%	45.74
Total	722.58			

Project cost	\$/kW		Esc'd
	Base Year	Esc'd	
Amount of IDC	2,383	3,070	675.31
Installed cost, including IDC		215	47.27
		3,284	722.58

Calendar Year	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2044	2049
Project Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	25	30
Year from 2002	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	42	47
Analysis years	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Depreciation, Amortization, and Debt Service Calculations (\$ Millions)

Depreciation rates for 5 year MACRS depreciation	100.00%	35.00%	26.00%	15.60%	11.01%	11.01%	1.38%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Beginning of year values		628.7	408.7	245.2	147.1	77.9	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tax depreciation (5 year MACRS)		628.7	408.7	245.2	147.1	77.9	8.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
End year asset value		60.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Begin year amortization value		3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Amortization over 20 years		60.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
End year asset value		60.8	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Long-Term Debt		432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83
Begin year debt amount		432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83
Debt service payment		432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83
Debt principal repayment (mortgage type amortization)		432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83
End year debt amount		432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83	432.83

Electric energy production, GWh	1,406	1,406	1,406	1,406	1,406	1,406	1,406	1,406	1,406	1,406	1,406	1,406	1,406	1,406	1,406	1,406	1,406	1,406	1,406	1,406	1,406	1,406
Unit fuel costs	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Income Statement and Cashflow Statement Calculations (\$ 1000)

Capacity revenue	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745
Revenue covering fixed non-fuel O&M revenue, property taxes, and insurance	14,663	14,936	15,222	15,513	15,810	16,115	16,428	16,748	17,076	17,413	17,758	18,112	18,474	18,846	19,226	19,617	20,017	20,427	20,847	21,278	23,599	26,226	
Variable non-fuel O&M revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Fuel cost revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Revenue Subtotal	76,408	76,684	76,968	77,258	77,555	77,860	78,173	78,493	78,821	79,158	79,503	79,857	80,219	80,591	80,971	81,362	81,762	82,172	82,592	83,023	85,345	87,971	
Fixed non-fuel O&M	(7,674)	(7,865)	(8,062)	(8,264)	(8,470)	(8,682)	(8,899)	(9,121)	(9,349)	(9,583)	(9,823)	(10,068)	(10,320)	(10,578)	(10,842)	(11,114)	(11,391)	(11,676)	(11,968)	(12,267)	(13,879)	(15,703)	
Variable non-fuel O&M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Insurance expense	(3,377)	(3,461)	(3,547)	(3,636)	(3,727)	(3,820)	(3,916)	(4,014)	(4,114)	(4,217)	(4,322)	(4,430)	(4,541)	(4,655)	(4,771)	(4,890)	(5,013)	(5,138)	(5,266)	(5,398)	(6,107)	(6,910)	
Property tax expense	(3,613)	(3,613)	(3,613)	(3,613)	(3,613)	(3,613)	(3,613)	(3,613)	(3,613)	(3,613)	(3,613)	(3,613)	(3,613)	(3,613)	(3,613)	(3,613)	(3,613)	(3,613)	(3,613)	(3,613)	(3,613)	(3,613)	
Fuel cost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Tax depreciation and amortization	(223,088)	(166,504)	(101,116)	(72,260)	(72,260)	(11,715)	(3,039)	(3,039)	(3,039)	(3,039)	(3,039)	(3,039)	(3,039)	(3,039)	(3,039)	(3,039)	(3,039)	(3,039)	(3,039)	(3,039)	(3,039)	(3,039)	
Operating income (EBIT)	(161,343)	(104,759)	(39,373)	(10,515)	(10,515)	50,030	58,706	58,706	58,706	58,706	58,706	58,706	58,706	58,706	58,706	58,706	58,706	58,706	58,706	58,706	58,706	58,706	
Interest	(36,790)	(36,030)	(35,205)	(34,309)	(33,338)	(32,284)	(31,140)	(29,900)	(28,554)	(27,093)	(25,508)	(23,789)	(21,923)	(19,899)	(17,703)	(15,320)	(12,734)	(9,929)	(6,885)	(3,583)	0	0	
Income tax	(198,133)	(140,789)	(74,576)	(44,824)	(43,853)	17,746	27,566	28,806	30,153	31,613	33,198	34,917	36,783	38,807	41,003	43,386	45,972	48,777	51,821	55,123	61,745	61,745	
Investment tax credit (for solar investment only, when owned by taxable entity)	79,650	56,597	29,980	18,019	17,629	(7,134)	(11,081)	(11,580)	(12,121)	(12,709)	(13,346)	(14,037)	(14,787)	(15,600)	(16,483)	(17,441)	(18,481)	(19,608)	(20,832)	(22,160)	(24,822)	(28,822)	
After tax income	66,180	(84,192)	(44,597)	(26,805)	(26,224)	10,612	16,484	17,226	18,031	18,905	19,852	20,881	21,996	23,207	24,520	25,945	27,491	29,169	30,989	32,964	36,924	42,924	
Add back depreciation	223,088	166,504	101,116	72,260	72,260	11,715	3,039	3,039	3,039	3,039	3,039	3,039	3,039	3,039	3,039	3,039	3,039	3,039	3,039	3,039	3,039	3,039	
Deduct repayment of debt principal	(8,947)	(9,707)	(10,533)	(11,428)	(12,399)	(13,453)	(14,597)	(15,837)	(17,184)	(18,644)	(20,229)	(21,948)	(23,814)	(25,838)	(28,034)	(30,417)	(33,003)	(35,808)	(38,852)	(42,154)	0	0	
Equity investments and dividend payouts	161,838	72,605	45,988	34,027	33,637	8,874	4,927	4,428	3,887	3,299	2,662	1,971	1,221	407	(475)	(1,433)	(2,473)	(3,600)	(4,824)	(6,152)	36,924	36,924	
Discount factor (to year of initial operation)	0.920	0.847	0.779	0.717	0.660	0.608	0.559	0.515	0.474	0.436	0.401	0.369	0.340	0.313	0.288	0.265	0.244	0.224	0.206	0.190	0.125	0.083	
Levelized and annual cost of electricity generation, nominal \$/kWh	0.054	0.055	0.055	0.055	0.055	0.055	0.056	0.056	0.056	0.056	0.057	0.057	0.057	0.057	0.058	0.058	0.058	0.058	0.058	0.059	0.061	0.063	

Coverage Ratios

Cash available for debt service	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745	61,745
DSCR	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35

Discounted revenues

Capacity	56,825	52,297	48,129	44,294	40,764	37,516	34,526	31,775	29,243	26,913	24,768	22,784	20,978	19,306	17,768	16,352	15,049	13,850	12,746	11,730	7,744	5,113
Fixed O&M	13,495	12,653	11																			

