

Appendix B:

JEDI Assumptions:

Inputs for JEDI PV Model

MISSOURI

		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Allocation (% of Prog. Target Installed/Yr)		1.0%	2.1%	3.3%	4.8%	6.6%	8.8%	11.4%	14.9%	19.8%	27.3%	
Total MW Installed / Yr.		16.72	0.37	0.38	27.16	0.98	1.00	1.03	49.73	2.14	2.19	54
Weighted Avg Non-Exempt Sales Tax Rate	4.230%	4.230%	4.230%	4.230%	4.230%	4.230%	4.230%	4.230%	4.230%	4.230%	4.230%	
Comm/Ind Avg Weighted Property Tax/kW (2MW & Under)	\$ 123.76	\$ 125.00	\$ 126.25	\$ 127.51	\$ 128.79	\$ 130.07	\$ 131.37	\$ 132.69	\$ 134.01	\$ 135.35	\$ 136.71	\$ 138.08
Property Tax Assessed Value % Increase		1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Residential - Retro kW Target		5,016.4	110.4	112.8	8,147.5	294.5	301.0	307.6	14,919.0	642.6	12.7	16,261.1
Avg Sys Size (kW _{DC})		4.9	5.1	5.3	5.5	5.7	6.0	6.2	6.4	6.7	7.0	7.3
% Change in System Size			4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%	4.0%
Number of Systems Installed		1,023.8	21.7	21.3	1,478.2	51.4	50.5	49.6	2,313.7	95.8	1.8	2,241.9
Allocation (% of Total kW _{DC} Installed)		30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%
Avg Installed Cost (\$/kW _{DC})	\$ 7,000.00	\$ 6,440.00	\$ 5,924.80	\$ 5,450.82	\$ 5,014.75	\$ 4,613.57	\$ 4,244.49	\$ 3,904.93	\$ 3,592.53	\$ 3,305.13	\$ 3,040.72	\$ 3,040.72
% Change in Installed Cost		8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Annual Direct O&M Costs (\$/kW _{DC})	\$ 10.00	\$ 9.50	\$ 9.03	\$ 8.57	\$ 8.15	\$ 7.74	\$ 7.58	\$ 7.43	\$ 7.36	\$ 7.28	\$ 7.21	\$ 7.21
% Change in Direct O&M Cost		5%	5%	5%	5%	5%	2%	2%	1%	1%	1%	
Large Commercial kW Target		5,852.5	128.8	131.6	9,505.5	343.6	351.2	358.9	17,405.5	749.7	766.2	18,971.3
Avg Sys Size (kW _{DC})		500	540.0	583.2	629.9	680.2	734.7	793.4	856.9	925.5	999.5	1,079.5
% Change in System Size			8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Number of Systems Installed		11.7	0.2	0.2	15.1	0.5	0.5	0.5	20.3	0.8	0.8	17.6
Allocation (% of Total kW _{DC} Installed)		35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Avg Installed Cost (\$/kW _{DC})	\$ 5,800.00	\$ 5,336.00	\$ 4,909.12	\$ 4,516.39	\$ 4,155.08	\$ 3,822.67	\$ 3,516.86	\$ 3,235.51	\$ 2,976.67	\$ 2,738.54	\$ 2,519.45	\$ 2,519.45

% Change in Installed Cost		8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Annual Direct O&M Costs (\$/kW _{DC})	\$ 12.00	\$ 11.40	\$ 10.83	\$ 10.29	\$ 9.77	\$ 9.29	\$ 9.10	\$ 8.92	\$ 8.83	\$ 8.74	\$ 8.65	\$ 8.65
% Change in Direct O&M Cost		5%	5%	5%	5%	5%	2%	2%	1%	1%	1%	
Utility kW Target		5,852.5	128.8	131.6	9,505.5	343.6	351.2	358.9	17,405.5	749.7	766.2	18,971.3
Avg Sys Size (kW _{DC})		1,000	1,100.0	1,210.0	1,331.0	1,464.1	1,610.5	1,771.6	1,948.7	2,143.6	2,357.9	2,593.7
% Change in System Size			10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%
Number of Systems Installed		5.9	0.1	0.1	7.1	0.2	0.2	0.2	8.9	0.3	0.3	7.3
Allocation (% of Total kW _{DC} Installed)		35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Avg Installed Cost (\$/kW _{DC})	\$ 4,970.00	\$ 4,572.40	\$ 4,206.61	\$ 3,870.08	\$ 3,560.47	\$ 3,275.64	\$ 3,013.58	\$ 2,772.50	\$ 2,550.70	\$ 2,346.64	\$ 2,158.91	\$ 2,158.91
% Change in Installed Cost		8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	
Annual Direct O&M Costs (\$/kW _{DC})	\$ 12.00	\$ 11.40	\$ 10.83	\$ 10.29	\$ 9.77	\$ 9.29	\$ 9.10	\$ 8.92	\$ 8.83	\$ 8.74	\$ 8.65	\$ 8.65
% Change in Direct O&M Cost		5%	5%	5%	5%	5%	2%	2%	1%	1%	1%	

Installed cost data are averaged from Solar Buzz, a public solar industry consulting firm and the Solar America Initiative.

O&M costs are from reported data from a survey of solar developers and installers.

Tax data from Missouri State Tax Commission and Missouri Department of Economic Development webpages

Commercial & Industrial Property
tax Assumptions
Solar example: 1 KW system
Appraised value: 5950
Assessment rate: 32%
Assessed Value: \$ 1,904
Tax Rate: \$6.50 per \$100 of Assessed Value
Tax \$ 123.76 per year per 1KW system