

Champaign County
Department of

**PLANNING &
ZONING**

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TO: Environment and Land Use Committee

FROM: John Hall, Zoning Administrator

DATE: October 10, 2019

**RE: Estimated Decommissioning Costs for North Portion of Zoning Case
903-S-18 IL Sidney Project 1 (Wolf-Wertz) Community Solar Farm**

BACKGROUND

The Estimated Decommissioning Costs for the proposed IL Sidney Project 1 (Wolf-Wertz) Community Solar Farm were compared to the estimated costs for various other solar farms from across the nation. The collection of solar farm estimated decommissioning costs was taken from internet searches in the Spring of 2018 and includes the estimated decommissioning costs of Champaign County community solar farms that were reviewed in public hearings in 2018.

COMPARISON OF ESTIMATED DECOMMISSIONING COSTS

The attached table summarizes the estimated decommissioning costs.

The subject solar farm in in green highlight. The most comparable solar farms are highlighted in yellow.

- The Estimated Decommissioning Costs seem to be comprehensive of all relevant costs.
- The proposed IL Sidney Project 1 has the second highest Total Cost per MW; the fourth highest Net Cost per MW; and the second highest Total Cost per Acre. The relative size of the costs for IL Sidney Project 1 indicates that the costs are realistic.
- The salvage value per MW for IL Sidney Project 1 is the second highest.
- The Zoning Ordinance limits the amount of salvage value that may be applied in the determination of estimated decommissioning cost to 70% and that cap on salvage value increases the Net Cost per MW to the second highest and the Net Cost per Acre is the highest. Compared to the other solar farms these are nearly “worst case” costs which means that basing the Letter of Credit on these costs should adequately protect Champaign County’s interests.

Comparison of Estimated Decommissioning Costs for Selected Solar Farms Including IL Sidney Project 1 (Wolf-Wertz North)

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Solar Farm or Source	Project Location	MW	Ac.s (1)	Total	Salvage Value (2)	Net Decom.	Total	Net Cost per MW	Total	Net Cost / Acre
				Decom. Cost (2)		Cost (2) (3)	Cost per MW		Cost / Acre	
1 NYSERDA (2016)	MA	2.0	12	60,200	NA		30,100		5,017	
2 NEXTERA Energy (2016?)	Belle Plaine, MN	5.0	30	122,864	142,200	-19,336	24,573	-3,867	4,095	-645
3 Fast Sun LLC (2017)	Goodhue Co., MN	1.0	6	134,267	104,732	29,535	134,267	29,535	22,378	4,923
4 South Forty Solar LLC (2015)	Burlington, VT	2.5	25	116,000	NA		46,400		4,640	
5 Tripple State Solar LLC (2015)	Iredell Co., NC	5.0	40	166,100	567,300	-401,200	33,220	-80,240	4,153	-10,030
6 Norman Dupuis, P.E. (2017)	Chester, NY	2.7	11	82,000	20,000	62,000	30,370	22,963	7,455	5,636
7 Muckdog Solar LLC (2017)	Genesee Co., NY	2.0	20	154,095	319,763	-165,668	77,048	-82,834	7,705	-8,283
8 Westlands Solar Farms (2011?)	Fresno, Co., CA	18.0	85	1,500,000	1,500,000	0	83,333	0	17,647	0
9 RE Kammerer Holdings (2011)*	Sacramento Co, CA	15.0	115	NA	NA	-89,494	NA	-5,966	NA	-778
10 Fleshman/Kost Road (2011)	Galt, CA	3.0	20	595,000	375,000	220,000	198,333	73,333	29,750	11,000
AVERAGE		5.6	36.4	325,614.0	432,714	-364,163	73,071.6	-6,725	11,426.5	304
AVERAGE w/o #8		4.2	31.0	178,815.8	254,833	-52,023	71,788.8	-6,725	10,649.0	260
Case 894-S-17	St. Joseph Twp IL	2.0	16	40,976	42,456	-1,480	20,488	-740	2,561	93
Case 897-S-18	Ludlow Twp IL	2.0	16	40,976	42,456	-1,480	20,488	-740	2,561	93
Case 903-S-18	Sidney Twp IL	4.0 DECOMMISSIONING COSTS WERE NOT INCLUDED FOR 4 MW								
Case 906-S-18	St. Joseph Twp IL	2.0	14	257,338	188,549	68,789	128,669	34,395	17,747	4,744
Case 907-S-28	St. Joseph Twp IL	4.0 DECOMMISSIONING COSTS WERE NOT INCLUDED FOR 4 MW								
IL Sidney Project 1 (Wolf-Wertz N)	Sidney Twp IL	2.0	11	309,216	267,191	42,070	154,608	21,030	28,111	3,825
IL Sidney Project 1 w/ only 70% salvage		2.0	11	309,216	187,063	122,183	154,608	61,092	28,111	11,108

NOTES

1. If not stated estimated at 6 acres per MW
 2. Costs reported for the year indicated.
 3. Total Decommissioning Cost less Salvage Value
 4. Type of racking is not clear in many instances. #3,#9 are single axis tracker arrays. #10 is a fixed tilt array
- * RE Kammerer cost does not include \$1,253,683 for estimated salvage value of photovoltaic panels which decreases net cost to -\$1,466,869

(References on back)

References:

- 1 <https://www.nyserda.ny.gov/-/media/NYSun/.../Decommissioning-Solar-Systems.pdf>
- 2 http://www.belleplainemn.com/sites/default/files/images/Attachment_2_Devine-Johnson_IUP_Application_Submittal.pdf
- 3 <https://www.co.goodhue.mn.us/AgendaCenter/ViewFile/Item/5355?fileID=13029>
- 4 <https://www.burlingtonvt.gov/sites/default/files/Agendas/SupportingDocuments/SFS-LS-9%20Decommissioning%20Plan%20with%20Attachments.pdf>
- 5 <https://www.co.iredell.nc.us/AgendaCenter/ViewFile/Item/194?fileID=2559>
- 6 http://www.cit-e.net/chester_ny/uppages/CLEAN%20ENERGY%20DECOMMISSIONING%20PLAN%2010-4-07.PDF
- 7 http://co.genesee.ny.us/docs/planning/T_06_BAT_4_17.pdf
- 8 <https://www.google.com/search?q=solar+farm+decommissioning+costs&ei=Aiy9WuilMo2ZzwLP9pvwCA&start=160&sa=N&biw=1103&bih=712>
- 9 www.planningdocuments.saccounty.net/DocOpen.aspx?PDCID=13128
- 10 www.planningdocuments.saccounty.net/DocOpen.aspx?PDCID=13854