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 Office of Energy Efficiency
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From: Greg Kremer, Grantee for Distributed Energy Resources Grant Number 04-26

Subject: November 2005 Status Report for Distributed Energy Resources Project # 04-26

Summary: The hybrid energy system production was higher this month due to the increase in the wind system output. The total system production was 121 KWH (which is significantly higher than the 56 KWH produced in November of last year, likely due to the lack of a battery charge temperature compensator last year). My monthly energy use was 41 KWH, which is higher than the 30.6 KWH used in November 2004, but is still quite low. So overall I was able to send 80 KWH to the grid this month.

The following items are being reported in accordance with the project agreement:

Photographs of the DER system installation site:

No new photos.

Log of activities performed to get approval for installation of the DER system (siting, permitting, zoning, interconnection, and net metering agreements):

- The net metering agreement is in place. I am still working with my AEP customer representative on resolving issues with billing to get AEP to acknowledge that I am a net energy producer.

Actual Project Costs [system design, equipment (itemized), installation, fees (itemized)]:

- \$21,797 as previously reported.

Electric bill usage information (starting one year before system installation, and noting major changes to the project site's energy profile): [All values in KWH, E indicates Estimated reading]

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2003	267	229_E	178	165	135	139	183	183	124_E	185_E	52	158
2004	130	130	66	72	47	5	-59.4	-42.1	-40	-14.4	-25.4	-20.2
2005	1.2	-32	-86	-102.2	-68.3	-87.5	-60.5	-38	-70	-22	-80	
12 mo. avg	10	-3.5	-16	-31	-40	-48	-48.1	-47.3	-49.2	-46.9	-49.6	

Monthly Energy production measured by the DER system metering equipment:

Table of Energy Production and Use (all values in KWH)								
Date	AC In	AC Out	AEP Meter	Total Produced	Cumulative Production	Actual Use	Sent to grid	Cumulative sent to grid
			29204.2					
June 04	NA	NA		75 KWH	75 KWH			
July 04	22	NA	29129.6	75	150			74.6
Aug. 04	60.5	18.5	29087.5	80	230	37.9	42.1	116.7
Sept. 04	100.5	70	29047.5	91.5	321.5	51.5	40	156.7
Oct. 04	140	92	29033.1	61.5	383	47.1	14.4	171.1
Nov. 04	167	121	29007.7	56	439	30.6	25.4	196.5
Dec. 04	207	144	28987.5	63	502	42.8	20.2	216.7
Jan. 05	254.5	144	28988	47.5	549.5	48.7	-1.2	215.5
Feb. 05	298	181	28956	81	630.5	49	32	247.5
Mar. 05	341	270	28870	132	762.5	46	86	333.5
Apr 05	373	379	28767.8	141	903.5	38.8	102.2	435.7
May 05	408.5	458.5	28699.5	115	1018.5	46.7	68.3	504
June 05	420	559	28612	112	1130.5	24.5	87.5	592.2
July 05	463.5	618.5	-25 *	103	1233.5	42.5	60.5	652.7
Aug 05	508.5	669.5	-63	96	1329.5	58	38	690.7
Sept 05	544	747.5	-133	113.5	1443	43.5	70	761
Oct 05	588	779	-155	75.5	1518.5	53.5	22	783
Nov 05	621	867	-235	121	1639.5	41	80	863

The "AC IN" meter records energy to the core loads (battery backup, refrigerator, furnace fan, and a few lights and outlets). The "AC Out" meter records energy to all other loads and the grid. AEP meter values are my readings of the digital meter at the end of the month.

Notes on System Performance (downtime, maintenance, repair costs, weather, etc.):

- Solar production likely remained about the same as last month, but wind production increased significantly, with more consistent winds and several storms.

Public Education Activities:

- I attended a Southeast Ohio Clean Energy Network meeting sponsored by Green Energy Ohio.