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From: Jacobs, Wendy

Sent: Wednesday, April 16, 2008 12:02 PM

To:

Subject: Next HEDD Stakeholder Meeting, Baseline information

The next HEDD stakeholder meeting has been moved from Wednesday, April 23 to Wednesday, May 28. Synapse-Energy will present its modeling analysis results with respect to consideration of energy efficiency, new generation and renewable energy in the context of NOx reductions needed for HEDD. The meeting will start at 9 AM in the Phoenix Auditorium.

Thanks to those of you who submitted baseline analysis information. The attached spreadsheet includes DEP's alternate baseline analysis for July 27, 2005, August 1, 2006 and August 2, 2006 using the methodology employed to derive the OTC MOU's HEDD reductions (CAMD data was used to determine emission rates and NOx emissions). The OTC HEDD MOU baseline analysis is included as well. The following information summarizes data contained in the attached spreadsheet:

	7/27/2005	8/1/2006
8/2/2006 7/26/05 (OTC MOU)		
Uncontrolled HEDD Unit (tpd)	49.9	50.7
61.4 46.2		
(HEDD CTs (tpd) + HEDD LFBs (tpd))		
Controlled HEDD Unit (tpd)	37.62	37.99 45.9
34.43		
(CTs 40% Red.App.+LFBs 30% Red.App.)		
Ton Reduction Required	12.28	12.71
15.5 11.77		
(CTs TPD Red. + LFBs TPD Red.)		

Average Uncontrolled HEDD Unit (tpd) for 7/27/05, 8/1/06 and 8/2/06 is 54.

Average Controlled HEDD Unit (tpd) for 7/27/05, 8/1/06 and 8/2/06 is 40.5.

Average Ton Reduction Required for 7/27/05, 8/1/06 and 8/2/06 is 13.5 tpd.

As the data show, while the uncontrolled and controlled HEDD Unit tpd increase using alternate baseline dates, the tons of reduction required increase as well. CTDEP seeks input on the appropriate HEDD baseline to use for the HEDD regulatory effort. Please be aware that any change to the HEDD baseline will require regional discussions as we have already agreed to the OTC MOU. Please submit any comments on this issue to me by COB April 30. Thank you.

HEDD ALTERNATE BASELINE ANALYSIS																									
HEDD Unit	7/27/05 NOx (tpd)	lb/MMBtu	HEDD CTs (tpd)	CTs 40% Red.App.	CTs TPD Red.	HEDD LFBs(tpd)	LFBs 30% Red.App.	LFBs TPD Red.	8/1/06 NOx (tpd)	lb/MMBtu	HEDD CTs (tpd)	CTs 40% Red.App.	CTs TPD Red.	HEDD LFBs(tpd)	LFBs 30% Red.App.	LFBs TPD Red.	8/2/06 NOx (tpd)	lb/MMBtu	HEDD CTs (tpd)	CTs 40% Red.App.	CTs TPD Red.	HEDD LFBs(tpd)	LFBs 30% Red.App.	LFBs TPD Red.	
AES Thames A	0.5	0.04							0.5	0.04							0.4	0.04							
AES Thames B	0.5	0.04							0.4	0.04							0.4	0.04							
Algonquin Power	0.7	0.14							0.7	0.13							0.7	0.13							
Branford	0.3	1.2	0.3	0.18	0.12				1.2	0.6							1.2	0.6	0.36	0.24					
Bridgeport Energy 1	0.2	0.04							0.3	0.02							0.3	0.02							
Bridgeport Energy 2	0.3	0.02							0.3	0.02							0.3	0.02							
Bridgeport Harbor 2	2	0.29				2	1.4	0.6	2.1	0.35				2.1	1.47	0.63	4.3	0.34				4.3	3.01	1.29	
Bridgeport Harbor 3	5.3	0.12							6.7	0.14							6.8	0.14							
Bridgeport Harbor 4	0.3	0.67	0.3	0.18	0.12																				
Capitol District Energy Center	0.3	0.11							0.3	0.09							0.4	0.08							
Cos Cob 10	1.4	1.2	1.4	0.84	0.56				1.8	1.2	1.8	1.08	0.72				1.8	1.2	1.8	1.08	0.72				
Cos Cob 11	1.2	1.2	1.2	0.72	0.48				1.8	1.2	1.8	1.08	0.72				2	1.2	2	1.2	0.8				
Cos Cob 12	1.1	1.2	1.1	0.66	0.44				1.8	1.2	1.8	1.08	0.72				2.1	1.2	2.1	1.26	0.84				
Devon 10																	0.4	0.12	0.4	0.24	0.16				
Devon 11	0.1	0.14	0.1	0.1	0				0.2	0.15	0.2	0.2	0				0.2	0.15	0.2	0.2	0				
Devon 12	0.2	0.14	0.2	0.2	0				0.2	0.13	0.2	0.2	0				0.2	0.13	0.2	0.2	0				
Devon 13	0.1	0.14	0.1	0.1	0				0.2	0.15	0.2	0.2	0				0.3	0.15	0.3	0.3	0				
Devon 14	0.1	0.14	0.1	0.1	0				0.2	0.08	0.2	0.2	0				0.2	0.07	0.2	0.2	0				
Franklin Drive																	0.6	1.2	0.6	0.36	0.24				
Lake Road 1									0.1	0.01							0.1	0.01							
Lake Road 2	0.1	0.01							0.1	0							0.1	0.01							
Lake Road 3	0.1	0.01							0.1	0							0.1	0							
Middletown 2	1.6	0.14				1.6	1.12	0.48	2.1	0.16				2.1	1.47	0.63	2.8	0.2				2.8	1.96	0.84	
Middletown 3	5.1	0.25				5.1	5.1	0	5	0.22				5	5	0	6.5	0.28				6.5	6.5	0	
Middletown 4	8.9	0.19				8.9	6.23	2.67	9.2	0.18				9.2	6.44	2.76	8.4	0.19				8.4	5.88	2.52	
Middletown 10																									
Milford Power 1	0.1	0.01							0.1	0.01							0.1	0.01							
Milford Power 2	0.1	0.01							0.1	0.01							0.1	0.01							
Montville 5	1.6	0.19				1.6	1.12	0.48	0.7	0.07							1.6	0.19				1.6	1.12	0.48	
Montville 6	13.4	0.27				13.4	9.38	4.02	10.3	0.2				10.3	7.21	3.09	7.2	0.17				7.2	5.04	2.16	
New Haven Harbor	5.7	0.13				5.7	3.99	1.71	4.8	0.13				4.8	3.36	1.44	5.9	0.14				5.9	4.13	1.77	
Norwalk Harbor 1	2.2	0.16				2.2	2.2	0	2.5	0.17				2.5	2.5	0	2.9	0.21				2.9	2.9	0	
Norwalk Harbor 2	2.8	0.16				2.8	2.8	0	3.1	0.17				3.1	3.1	0	4.5	0.21				4.5	4.5	0	
Norwalk Harbor 10	1.1	1.2	1.1	0.66	0.44				1.1	1.2	1.1	0.66	0.44				0.8	0.57	0.8	0.48	0.32				
Norwich									0.7	0.57	0.7	0.42	0.28				0.8	0.57	0.8	0.48	0.32				
Pratt & Whitney	0.1	0.02							0.2	0.02							0.2	0.02							
South Meadow 11A									0.2	0.79	0.2	0.12	0.08				0.8	0.8	0.8	0.48	0.32				
South Meadow 11B									0.2	0.7	0.2	0.12	0.08				0.7	0.71	0.7	0.42	0.28				
South Meadow 12A									0.6	0.81	0.6	0.36	0.24				0.7	0.77	0.7	0.42	0.28				
South Meadow 12B									0.7	0.73	0.7	0.42	0.28				0.9	0.69	0.9	0.54	0.36				
South Meadow 13A									0.8	0.86	0.8	0.48	0.32				0.9	0.81	0.9	0.54	0.36				
South Meadow 13B									0.8	0.83	0.8	0.48	0.32				0.8	0.78	0.8	0.48	0.32				
South Meadow 14A									0.5	0.8	0.5	0.3	0.2				0.8	0.81	0.8	0.48	0.32				
South Meadow 14B									0.5	0.68	0.5	0.3	0.2				0.7	0.69	0.7	0.42	0.28				
Torrington Terminal																	0.5	1.2	0.5	0.3	0.2				
Tunnel	0.4	0.54	0.4	0.24	0.16				0.7	0.7	0.7	0.42	0.28				1	0.7	1	0.6	0.4				
Wallingford Energy 1		0.01								0.01								0.01							
Wallingford Energy 2		0.02								0.01								0.01							
Wallingford Energy 3		0.02								0.01								0.01							
Wallingford Energy 4		0.02								0.02								0.01							
Wallingford Energy 5		0.04								0.01								0.01							
Waterside Power 4	0.1	0.3	0.1	0.1	0				0.1	0.15	0.1	0.1	0				0.1	0.36	0.1	0.1	0				
Waterside Power 5	0.1	0.28	0.1	0.1	0				0.1	0.48	0.1	0.1	0				0.1	0.34	0.1	0.1	0				
Waterside Power 6	0.1	0.39	0.1	0.1	0				0.2	0.78	0.2	0.2	0				0.1	0.14	0.1	0.1	0				
<b>TOTAL</b>	<b>58.2</b>		<b>6.6</b>	<b>4.28</b>	<b>2.32</b>	<b>43.3</b>	<b>33.34</b>	<b>9.96</b>	<b>61.1</b>		<b>11.6</b>	<b>7.44</b>	<b>4.16</b>	<b>39.1</b>	<b>30.55</b>	<b>8.55</b>	<b>71.2</b>		<b>17.3</b>	<b>10.86</b>	<b>6.44</b>	<b>44.1</b>	<b>35.04</b>	<b>9.06</b>	

Notes:

- 1) Non-EGUs (Cascades and Pfizer) were not included in the analysis.
- 2) HEDD units include combustion turbines (not combined cycle) and load following boilers with emission rates greater than 0.1 lb/MMBtu.
- 3) The 40% reduction and 30% reduction factors were not applied to combustion turbines with water injection (Devon 11-14 and Waterside Power 4-6) and load following boilers with SNCR (Middletown 3, Norwalk 1 and Norwalk 2), respectively.

	7/27/2005	8/1/2006	8/2/2006	7/26/05 (OTC MOU)
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(HEDD CTs (tpd) + HEDD LFBs (tpd))				
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(CTs 40% Red.App.+LFBs 30% Red.App.)				
Ton Reduction Required	12.28	12.71	15.5	11.77
(CTs TPD Red. + LFBs TPD Red.)				

Average Uncontrolled HEDD Unit (tpd) for 7/27/05, 8/1/06 and 8/2/06 is 54.

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		OTC MOU					
7/26/05 NOx (tpd)	lb/MMBtu	HEDD CTs (tpd)	CTs 40% Red.App.	CTs TPD Red.	HEDD LFBs(tpd)	LFBs 30% Red.App.	LFBs TPD Red.
0.4	0.04						
0.4	0.04						
0.7	0.14						
1.1	1.2	1.1	0.66	0.44			
0.3	0.02						
0.4	0.3				0.4	0.28	0.12
5.7	0.13						
0.6	0.67	0.6	0.36	0.24			
0.2	0.14						
1.5	1.2	1.5	0.9	0.6			
1.4	1.2	1.4	0.84	0.56			
1.5	1.2	1.5	0.9	0.6			
			0				
0.2	0.14	0.2	0.2	0			
0.2	0.14	0.2	0.2	0			
0.2	0.14	0.2	0.2	0			
0.2	0.14	0.2	0.2	0			
0.1	0.01						
0.1	0.01						
1.4	0.12				1.4	0.98	0.42
4.5	0.23				4.5	4.5	0
8.6	0.22				8.6	6.02	2.58
0.1	0.01						
0.1	0.01						
1.6	0.18				1.6	1.12	0.48
12.9	0.26				12.9	9.03	3.87
5.4	0.14				5.4	3.78	1.62
1.7	0.14				1.7	1.7	0
2.2	0.14				2.2	2.2	0
0.6	1.2	0.6	0.36	0.24			
0.1	0.02						
	0.02						
	0.01						
	0.01						
	0.01						
	0.04						
54.4		7.5	4.82	2.66	38.7	29.61	9.09