

	Natural Gas				SO2	NOX
	Henry	AD Hub	PJM Class HSC	Swing Service Adder		
Oct-07						
Nov-07						
Dec-07						
Jan-08						
Feb-08						
Mar-08						
Apr-08						
May-08						
Jun-08						
Jul-08						
Aug-08						
Sep-08						
Oct-08						
Nov-08						
Dec-08						
Jan-09						
Feb-09						
Mar-09						
Apr-09						
May-09						
Jun-09						
Jul-09						
Aug-09						
Sep-09						
Oct-09						
Nov-09						
Dec-09						
Jan-10						
Feb-10						
Mar-10						
Apr-10						
May-10						
Jun-10						
Jul-10						
Aug-10						

Henry	AD Hub	PJM Class	Natural Gas HSC	Swing Service	SO2	NOX
Sep-10						
Oct-10						
Nov-10						
Dec-10						
Jan-11						
Feb-11						
Mar-11						
Apr-11						
May-11						
Jun-11						
Jul-11						
Aug-11						
Sep-11						
Oct-11						
Nov-11						
Dec-11						
Jan-12						
Feb-12						
Mar-12						
Apr-12						
May-12						
Jun-12						
Jul-12						
Aug-12						
Sep-12						
Oct-12						
Nov-12						
Dec-12						
Jan-13						
Feb-13						
Mar-13						
Apr-13						
May-13						
Jun-13						
Jul-13						

Henry	AD Hub	PJM Class	Natural Gas HSC	Swing Service	SO2	NOX
Aug-13						
Sep-13						
Oct-13						
Nov-13						
Dec-13						
Jan-14						
Feb-14						
Mar-14						
Apr-14						
May-14						
Jun-14						
Jul-14						
Aug-14						
Sep-14						
Oct-14						
Nov-14						
Dec-14						
Jan-15						
Feb-15						
Mar-15						
Apr-15						
May-15						
Jun-15						
Jul-15						
Aug-15						
Sep-15						
Oct-15						
Nov-15						
Dec-15						
Jan-16						
Feb-16						
Mar-16						
Apr-16						
May-16						
Jun-16						

	Henry	AD Hub	Natural Gas	PJM Class HSC	Swing Service Adder	SO2	NOX
Jul-16							
Aug-16							
Sep-16							
Oct-16							
Nov-16							
Dec-16							
Jan-17							
Feb-17							
Mar-17							
Apr-17							
May-17							
Jun-17							
Jul-17							
Aug-17							
Sep-17							
Oct-17							
Nov-17							
Dec-17							
Jan-18							
Feb-18							
Mar-18							
Apr-18							
May-18							
Jun-18							
Jul-18							
Aug-18							
Sep-18							
Oct-18							
Nov-18							
Dec-18							
Jan-19							
Feb-19							
Mar-19							
Apr-19							
May-19							

	Natural Gas					
	Henry	AD Hub	PJM Class HSC	Swing Service Adder	SO2	NOX
Jun-19						
Jul-19						
Aug-19						
Sep-19						
Oct-19						
Nov-19						
Dec-19						
Jan-20						
Feb-20						
Mar-20						
Apr-20						
May-20						
Jun-20						
Jul-20						
Aug-20						
Sep-20						
Oct-20						
Nov-20						
Dec-20						

	AEP GEN HUB - HR	ERCOT - HR	SPP - HR	AD Hub Cap.	SPP Cap.
Jan-05					
Feb-05					
Mar-05					
Apr-05					
May-05					
Jun-05					
Jul-05					
Aug-05					
Sep-05					
Oct-05					
Nov-05					
Dec-05					
Jan-06					
Feb-06					
Mar-06					
Apr-06					
May-06					
Jun-06					
Jul-06					
Aug-06					
Sep-06					
Oct-06					
Nov-06					
Dec-06					
Jan-07					
Feb-07					
Mar-07					
Apr-07					
May-07					
Jun-07					
Jul-07					
Aug-07					
Sep-07					

	AEP GEN HUB - HR	ERCOT - HR	SPP - HR	AD Hub Cap.	SPP Cap.
Oct-07					
Nov-07					
Dec-07					
Jan-08					
Feb-08					
Mar-08					
Apr-08					
May-08					
Jun-08					
Jul-08					
Aug-08					
Sep-08					
Oct-08					
Nov-08					
Dec-08					
Jan-09					
Feb-09					
Mar-09					
Apr-09					
May-09					
Jun-09					
Jul-09					
Aug-09					
Sep-09					
Oct-09					
Nov-09					
Dec-09					
Jan-10					
Feb-10					
Mar-10					
Apr-10					
May-10					
Jun-10					
Jul-10					
Aug-10					

AEP GEN HUB - HR    ERCOT - HR    SPP - HR    AD Hub Cap.    SPP Cap.

Sep-10  
Oct-10  
Nov-10  
Dec-10  
Jan-11  
Feb-11  
Mar-11  
Apr-11  
May-11  
Jun-11  
Jul-11  
Aug-11  
Sep-11  
Oct-11  
Nov-11  
Dec-11  
Jan-12  
Feb-12  
Mar-12  
Apr-12  
May-12  
Jun-12  
Jul-12  
Aug-12  
Sep-12  
Oct-12  
Nov-12  
Dec-12  
Jan-13  
Feb-13  
Mar-13  
Apr-13  
May-13  
Jun-13  
Jul-13



AEP GEN HUB - HR    ERCOT - HR    SPP - HR    AD Hub Cap.    SPP Cap.

Aug-13  
Sep-13  
Oct-13  
Nov-13  
Dec-13  
Jan-14  
Feb-14  
Mar-14  
Apr-14  
May-14  
Jun-14  
Jul-14  
Aug-14  
Sep-14  
Oct-14  
Nov-14  
Dec-14  
Jan-15  
Feb-15  
Mar-15  
Apr-15  
May-15  
Jun-15  
Jul-15  
Aug-15  
Sep-15  
Oct-15  
Nov-15  
Dec-15  
Jan-16  
Feb-16  
Mar-16  
Apr-16  
May-16  
Jun-16

	AEP GEN HUB - HR	ERCOT - HR	SPP - HR	AD Hub Cap.	SPP Cap.
Jul-16					
Aug-16					
Sep-16					
Oct-16					
Nov-16					
Dec-16					
Jan-17					
Feb-17					
Mar-17					
Apr-17					
May-17					
Jun-17					
Jul-17					
Aug-17					
Sep-17					
Oct-17					
Nov-17					
Dec-17					
Jan-18					
Feb-18					
Mar-18					
Apr-18					
May-18					
Jun-18					
Jul-18					
Aug-18					
Sep-18					
Oct-18					
Nov-18					
Dec-18					
Jan-19					
Feb-19					
Mar-19					
Apr-19					
May-19					

	AEP GEN HUB - HR	ERCOT - HR	SPP - HR	AD Hub Cap.	SPP Cap.
Jun-19					
Jul-19					
Aug-19					
Sep-19					
Oct-19					
Nov-19					
Dec-19					
Jan-20					
Feb-20					
Mar-20					
Apr-20					
May-20					
Jun-20					
Jul-20					
Aug-20					
Sep-20					
Oct-20					
Nov-20					
Dec-20					

	PJM - AEP GEN HUB		ERCOT South		SPP	
	On-Peak	Off-Peak	On-Peak	Off-Peak	On-Peak	Off-Peak
Oct-05						
Nov-05	2005	2005				
Dec-05	2006	2006				
Jan-06	2007	2007				
Feb-06	2008	2008				
Mar-06						
Apr-06						
May-06						
Jun-06						
Jul-06						
Aug-06						
Sep-06						
Oct-06						
Nov-06						
Dec-06						
Jan-07						
Feb-07						
Mar-07						
Apr-07						
May-07						
Jun-07						
Jul-07						
Aug-07						
Sep-07						
Oct-07						
Nov-07						
Dec-07						
Jan-08						
Feb-08						
Mar-08						

	CAPP	CAPP	CSX-Rail	CSX-Comp	NYMEX	NYMEX
Oct-05		2005	62.41			2006
Nov-05		2006	61.73			2006
Dec-05		2007	59.85			2007
Jan-06		2008	58.19			2008
Feb-06						
Mar-06						
Apr-06						
May-06						
Jun-06						
Jul-06						
Aug-06						
Sep-06						
Oct-06						
Nov-06						
Dec-06						
Jan-07						
Feb-07						
Mar-07						
Apr-07						
May-07						
Jun-07						
Jul-07						
Aug-07						
Sep-07						
Oct-07						
Nov-07						
Dec-07						
Jan-08						
Feb-08						
Mar-08						

Coal	NAPP High Sulfur	NAPP High Sulfur	NAPP Med Sulfur	I-Basin	PRB 8800	PRB 8400	COLOWYO
Oct-05							
Nov-05		2006					
Dec-05		2007					
Jan-06		2008					
Feb-06							
Mar-06							
Apr-06							
May-06							
Jun-06							
Jul-06							
Aug-06							
Sep-06							
Oct-06							
Nov-06							
Dec-06							
Jan-07							
Feb-07							
Mar-07							
Apr-07							
May-07							
Jun-07							
Jul-07							
Aug-07							
Sep-07							
Oct-07							
Nov-07							
Dec-07							
Jan-08							
Feb-08							
Mar-08							

Natural Gas				SO2	NOX	AEP GEN HUB - HR	ERCOT - HR	SPP - HR	AD Hub Cap.	SPP Cap.
Henry	AD Hub	PJM Classic	HSC	Swing	Service	Adder				
Oct-05										
Nov-05										
Dec-05										
Jan-06										
Feb-06										
Mar-06										
Apr-06										
May-06										
Jun-06										
Jul-06										
Aug-06										
Sep-06										
Oct-06										
Nov-06										
Dec-06										
Jan-07										
Feb-07										
Mar-07										
Apr-07										
May-07										
Jun-07										
Jul-07										
Aug-07										
Sep-07										
Oct-07										
Nov-07										
Dec-07										
Jan-08										
Feb-08										
Mar-08										

	PJM - AEP GEN HUB		ERCOT South		SPP	
	\$/MWh On-Peak	\$/MWh Off-Peak	\$/MWh On-Peak	\$/MWh Off-Peak	\$/MWh On-Peak	\$/MWh Off-Peak
Jan-05						
Feb-05						
Mar-05						
Apr-05						
May-05						
Jun-05						
Jul-05						
Aug-05						
Sep-05						
Oct-05						
Nov-05						
Dec-05						
Jan-06						
Feb-06						
Mar-06						
Apr-06						
May-06						
Jun-06						
Jul-06						
Aug-06						
Sep-06						
Oct-06						
Nov-06						
Dec-06						
Jan-07						
Feb-07						
Mar-07						
Apr-07						
May-07						
Jun-07						
Jul-07						
Aug-07						
Sep-07						
Oct-07						
Nov-07						

	CAPP	CAPP	CSX-Rail	CSX-Comp
Jan-05		2005		
Feb-05		2006		
Mar-05		2007		
Apr-05		2008		
May-05		2009		
Jun-05		2010		
Jul-05		2011		
Aug-05		2012		
Sep-05		2013		
Oct-05		2014		
Nov-05		2015		
Dec-05		2016		
Jan-06		2017		
Feb-06		2018		
Mar-06		2019		
Apr-06		2020		
May-06				
Jun-06				
Jul-06				
Aug-06				
Sep-06				
Oct-06				
Nov-06				
Dec-06				
Jan-07				
Feb-07				
Mar-07				
Apr-07				
May-07				
Jun-07				
Jul-07				
Aug-07				
Sep-07				
Oct-07				
Nov-07				



Dec-07  
Jan-08  
Feb-08  
Mar-08  
Apr-08  
May-08  
Jun-08  
Jul-08  
Aug-08  
Sep-08  
Oct-08  
Nov-08  
Dec-08  
Jan-09  
Feb-09  
Mar-09  
Apr-09  
May-09  
Jun-09  
Jul-09  
Aug-09  
Sep-09  
Oct-09  
Nov-09  
Dec-09  
Jan-10  
Feb-10  
Mar-10  
Apr-10  
May-10  
Jun-10  
Jul-10  
Aug-10  
Sep-10  
Oct-10  
Nov-10  
Dec-10  
Jan-11

Dec-07  
Jan-08  
Feb-08  
Mar-08  
Apr-08  
May-08  
Jun-08  
Jul-08  
Aug-08  
Sep-08  
Oct-08  
Nov-08  
Dec-08  
Jan-09  
Feb-09  
Mar-09  
Apr-09  
May-09  
Jun-09  
Jul-09  
Aug-09  
Sep-09  
Oct-09  
Nov-09  
Dec-09  
Jan-10  
Feb-10  
Mar-10  
Apr-10  
May-10  
Jun-10  
Jul-10  
Aug-10  
Sep-10  
Oct-10  
Nov-10  
Dec-10  
Jan-11

Feb-11	:	Feb-11
Mar-11	:	Mar-11
Apr-11	:	Apr-11
May-11	:	May-11
Jun-11	:	Jun-11
Jul-11	:	Jul-11
Aug-11	:	Aug-11
Sep-11	:	Sep-11
Oct-11	:	Oct-11
Nov-11	:	Nov-11
Dec-11	:	Dec-11
Jan-12	:	Jan-12
Feb-12	:	Feb-12
Mar-12	:	Mar-12
Apr-12	:	Apr-12
May-12	:	May-12
Jun-12	:	Jun-12
Jul-12	:	Jul-12
Aug-12	:	Aug-12
Sep-12	:	Sep-12
Oct-12	:	Oct-12
Nov-12	:	Nov-12
Dec-12	:	Dec-12
Jan-13	:	Jan-13
Feb-13	:	Feb-13
Mar-13	:	Mar-13
Apr-13	:	Apr-13
May-13	:	May-13
Jun-13	:	Jun-13
Jul-13	:	Jul-13
Aug-13	:	Aug-13
Sep-13	:	Sep-13
Oct-13	:	Oct-13
Nov-13	:	Nov-13
Dec-13	:	Dec-13
Jan-14	:	Jan-14
Feb-14	:	Feb-14
Mar-14	:	Mar-14

Apr-14	52.29	41.34	53.10	33.31	54.16	37.24	Apr-14
May-14	45.32	32.26	53.33	31.67	50.73	33.98	May-14
Jun-14	49.72	32.39	55.54	34.71	55.40	35.52	Jun-14
Jul-14	56.44	36.48	59.45	39.35	61.54	39.90	Jul-14
Aug-14	57.50	36.90	61.23	39.59	61.93	40.21	Aug-14
Sep-14	55.10	37.62	54.89	33.78	58.74	39.00	Sep-14
Oct-14	52.94	38.47	54.27	32.61	55.11	37.31	Oct-14
Nov-14	53.28	40.84	56.72	37.81	57.31	39.63	Nov-14
Dec-14	53.57	41.95	55.07	36.98	54.55	39.17	Dec-14
Jan-15	57.17	45.08	55.09	37.86	57.82	41.43	Jan-15
Feb-15	57.92	46.83	56.41	41.10	57.86	41.91	Feb-15
Mar-15	58.78	46.04	55.22	36.85	57.43	40.31	Mar-15
Apr-15	53.96	42.89	53.84	33.74	55.48	38.02	Apr-15
May-15	46.84	33.17	54.08	32.07	51.64	34.42	May-15
Jun-15	51.08	33.30	56.33	35.17	56.47	36.05	Jun-15
Jul-15	57.90	37.52	60.28	39.87	62.75	40.40	Jul-15
Aug-15	58.98	38.13	62.10	40.12	63.19	40.89	Aug-15
Sep-15	56.27	38.60	55.65	34.21	59.86	39.62	Sep-15
Oct-15	54.16	39.44	55.02	33.01	56.33	38.09	Oct-15
Nov-15	54.35	41.97	57.50	38.29	58.37	40.26	Nov-15
Dec-15	54.88	43.22	55.81	37.45	55.40	39.81	Dec-15
Jan-16	58.99	46.74	55.82	38.34	59.45	42.63	Jan-16
Feb-16	59.67	48.66	57.17	41.65	59.45	43.13	Feb-16
Mar-16	60.28	47.71	55.97	37.33	58.90	41.45	Mar-16
Apr-16	55.22	44.12	54.59	34.17	56.99	39.21	Apr-16
May-16	47.83	34.22	54.84	32.47	52.89	35.62	May-16
Jun-16	52.62	34.75	57.12	35.63	58.01	37.32	Jun-16
Jul-16	59.54	39.01	61.11	40.39	64.47	41.70	Jul-16
Aug-16	60.63	39.76	62.97	40.65	64.94	42.18	Aug-16
Sep-16	57.76	40.15	56.42	34.64	61.42	40.68	Sep-16
Oct-16	55.40	40.92	55.77	33.41	57.45	39.06	Oct-16
Nov-16	55.91	43.65	58.28	38.79	59.86	41.48	Nov-16
Dec-16	56.45	44.95	56.56	37.93	57.07	41.12	Dec-16
Jan-17	60.81	48.39	56.56	38.83	61.08	43.83	Jan-17
Feb-17	61.42	50.49	57.94	42.20	61.04	44.36	Feb-17
Mar-17	61.78	49.38	56.73	37.81	60.38	42.60	Mar-17
Apr-17	56.47	45.35	55.34	34.60	58.50	40.39	Apr-17
May-17	48.82	35.27	55.61	32.88	54.13	36.81	May-17

Jun-17	Jun-17
Jul-17	Jul-17
Aug-17	Aug-17
Sep-17	Sep-17
Oct-17	Oct-17
Nov-17	Nov-17
Dec-17	Dec-17
Jan-18	Jan-18
Feb-18	Feb-18
Mar-18	Mar-18
Apr-18	Apr-18
May-18	May-18
Jun-18	Jun-18
Jul-18	Jul-18
Aug-18	Aug-18
Sep-18	Sep-18
Oct-18	Oct-18
Nov-18	Nov-18
Dec-18	Dec-18
Jan-19	Jan-19
Feb-19	Feb-19
Mar-19	Mar-19
Apr-19	Apr-19
May-19	May-19
Jun-19	Jun-19
Jul-19	Jul-19
Aug-19	Aug-19
Sep-19	Sep-19
Oct-19	Oct-19
Nov-19	Nov-19
Dec-19	Dec-19
Jan-20	Jan-20
Feb-20	Feb-20
Mar-20	Mar-20
Apr-20	Apr-20
May-20	May-20
Jun-20	Jun-20
Jul-20	Jul-20

Aug-20  
Sep-20  
Oct-20  
Nov-20  
Dec-20

Aug-20  
Sep-20  
Oct-20  
Nov-20  
Dec-20

Coal Delivered Prices \$/Ton

	NYMEX	NYMEX	NAPP High Sulfur	NAPP High Sulfur	NAPP Med I-Basin	PRB 8800	PRB 8400	COLOWYC
Jan-05		2005		2005				
Feb-05		2006		2006				
Mar-05		2007		2007				
Apr-05		2008		2008				
May-05		2009		2009				
Jun-05		2010		2010				
Jul-05		2011		2011				
Aug-05		2012		2012				
Sep-05		2013		2013				
Oct-05		2014		2014				
Nov-05		2015		2015				
Dec-05		2016		2016				
Jan-06		2017		2017				
Feb-06		2018		2018				
Mar-06		2019		2019				
Apr-06		2020		2020				
May-06								
Jun-06								
Jul-06								
Aug-06								
Sep-06								
Oct-06								
Nov-06								
Dec-06								
Jan-07								
Feb-07								
Mar-07								
Apr-07								
May-07								
Jun-07								
Jul-07								
Aug-07								
Sep-07								
Oct-07								
Nov-07								

Dec-07  
Jan-08  
Feb-08  
Mar-08  
Apr-08  
May-08  
Jun-08  
Jul-08  
Aug-08  
Sep-08  
Oct-08  
Nov-08  
Dec-08  
Jan-09  
Feb-09  
Mar-09  
Apr-09  
May-09  
Jun-09  
Jul-09  
Aug-09  
Sep-09  
Oct-09  
Nov-09  
Dec-09  
Jan-10  
Feb-10  
Mar-10  
Apr-10  
May-10  
Jun-10  
Jul-10  
Aug-10  
Sep-10  
Oct-10  
Nov-10  
Dec-10  
Jan-11

Feb-11  
Mar-11  
Apr-11  
May-11  
Jun-11  
Jul-11  
Aug-11  
Sep-11  
Oct-11  
Nov-11  
Dec-11  
Jan-12  
Feb-12  
Mar-12  
Apr-12  
May-12  
Jun-12  
Jul-12  
Aug-12  
Sep-12  
Oct-12  
Nov-12  
Dec-12  
Jan-13  
Feb-13  
Mar-13  
Apr-13  
May-13  
Jun-13  
Jul-13  
Aug-13  
Sep-13  
Oct-13  
Nov-13  
Dec-13  
Jan-14  
Feb-14  
Mar-14



Apr-14  
May-14  
Jun-14  
Jul-14  
Aug-14  
Sep-14  
Oct-14  
Nov-14  
Dec-14  
Jan-15  
Feb-15  
Mar-15  
Apr-15  
May-15  
Jun-15  
Jul-15  
Aug-15  
Sep-15  
Oct-15  
Nov-15  
Dec-15  
Jan-16  
Feb-16  
Mar-16  
Apr-16  
May-16  
Jun-16  
Jul-16  
Aug-16  
Sep-16  
Oct-16  
Nov-16  
Dec-16  
Jan-17  
Feb-17  
Mar-17  
Apr-17  
May-17

Jun-17  
Jul-17  
Aug-17  
Sep-17  
Oct-17  
Nov-17  
Dec-17  
Jan-18  
Feb-18  
Mar-18  
Apr-18  
May-18  
Jun-18  
Jul-18  
Aug-18  
Sep-18  
Oct-18  
Nov-18  
Dec-18  
Jan-19  
Feb-19  
Mar-19  
Apr-19  
May-19  
Jun-19  
Jul-19  
Aug-19  
Sep-19  
Oct-19  
Nov-19  
Dec-19  
Jan-20  
Feb-20  
Mar-20  
Apr-20  
May-20  
Jun-20  
Jul-20

Aug-20  
Sep-20  
Oct-20  
Nov-20  
Dec-20

	\$/MMBTu	Natural Gas				SO2 \$/Ton	NOX \$/Ton	AEP GEN I
		AD Hub	PJM Class	HSC	Swing Service Adder			
) Henry								
Jan-05	2005							
Feb-05	2006							
Mar-05	2007							
Apr-05	2008							
May-05	2009							
Jun-05	2010							
Jul-05	2011							
Aug-05	2012							
Sep-05	2013							
Oct-05	2014							
Nov-05	2015							
Dec-05	2016							
Jan-06	2017							
Feb-06	2018							
Mar-06	2019							
Apr-06	2020							
May-06								
Jun-06								
Jul-06								
Aug-06								
Sep-06								
Oct-06								
Nov-06								
Dec-06								
Jan-07								
Feb-07								
Mar-07								
Apr-07								
May-07								
Jun-07								
Jul-07								
Aug-07								
Sep-07								
Oct-07								
Nov-07								

Dec-07  
Jan-08  
Feb-08  
Mar-08  
Apr-08  
May-08  
Jun-08  
Jul-08  
Aug-08  
Sep-08  
Oct-08  
Nov-08  
Dec-08  
Jan-09  
Feb-09  
Mar-09  
Apr-09  
May-09  
Jun-09  
Jul-09  
Aug-09  
Sep-09  
Oct-09  
Nov-09  
Dec-09  
Jan-10  
Feb-10  
Mar-10  
Apr-10  
May-10  
Jun-10  
Jul-10  
Aug-10  
Sep-10  
Oct-10  
Nov-10  
Dec-10  
Jan-11

Feb-11  
Mar-11  
Apr-11  
May-11  
Jun-11  
Jul-11  
Aug-11  
Sep-11  
Oct-11  
Nov-11  
Dec-11  
Jan-12  
Feb-12  
Mar-12  
Apr-12  
May-12  
Jun-12  
Jul-12  
Aug-12  
Sep-12  
Oct-12  
Nov-12  
Dec-12  
Jan-13  
Feb-13  
Mar-13  
Apr-13  
May-13  
Jun-13  
Jul-13  
Aug-13  
Sep-13  
Oct-13  
Nov-13  
Dec-13  
Jan-14  
Feb-14  
Mar-14

Apr-14  
May-14  
Jun-14  
Jul-14  
Aug-14  
Sep-14  
Oct-14  
Nov-14  
Dec-14  
Jan-15  
Feb-15  
Mar-15  
Apr-15  
May-15  
Jun-15  
Jul-15  
Aug-15  
Sep-15  
Oct-15  
Nov-15  
Dec-15  
Jan-16  
Feb-16  
Mar-16  
Apr-16  
May-16  
Jun-16  
Jul-16  
Aug-16  
Sep-16  
Oct-16  
Nov-16  
Dec-16  
Jan-17  
Feb-17  
Mar-17  
Apr-17  
May-17

Jun-17  
Jul-17  
Aug-17  
Sep-17  
Oct-17  
Nov-17  
Dec-17  
Jan-18  
Feb-18  
Mar-18  
Apr-18  
May-18  
Jun-18  
Jul-18  
Aug-18  
Sep-18  
Oct-18  
Nov-18  
Dec-18  
Jan-19  
Feb-19  
Mar-19  
Apr-19  
May-19  
Jun-19  
Jul-19  
Aug-19  
Sep-19  
Oct-19  
Nov-19  
Dec-19  
Jan-20  
Feb-20  
Mar-20  
Apr-20  
May-20  
Jun-20  
Jul-20



Aug-20  
Sep-20  
Oct-20  
Nov-20  
Dec-20

Heat Rates

Capacity Values  
\$/MW-Day \$/MW-Day  
AD Hub C: SPP Cap.

HUB - HR ERCOT - F SPP - HR  
Jan-05  
Feb-05  
Mar-05  
Apr-05  
May-05  
Jun-05  
Jul-05  
Aug-05  
Sep-05  
Oct-05  
Nov-05  
Dec-05  
Jan-06  
Feb-06  
Mar-06  
Apr-06  
May-06  
Jun-06  
Jul-06  
Aug-06  
Sep-06  
Oct-06  
Nov-06  
Dec-06  
Jan-07  
Feb-07  
Mar-07  
Apr-07  
May-07  
Jun-07  
Jul-07  
Aug-07  
Sep-07  
Oct-07  
Nov-07

Dec-07  
Jan-08  
Feb-08  
Mar-08  
Apr-08  
May-08  
Jun-08  
Jul-08  
Aug-08  
Sep-08  
Oct-08  
Nov-08  
Dec-08  
Jan-09  
Feb-09  
Mar-09  
Apr-09  
May-09  
Jun-09  
Jul-09  
Aug-09  
Sep-09  
Oct-09  
Nov-09  
Dec-09  
Jan-10  
Feb-10  
Mar-10  
Apr-10  
May-10  
Jun-10  
Jul-10  
Aug-10  
Sep-10  
Oct-10  
Nov-10  
Dec-10  
Jan-11

Feb-11  
Mar-11  
Apr-11  
May-11  
Jun-11  
Jul-11  
Aug-11  
Sep-11  
Oct-11  
Nov-11  
Dec-11  
Jan-12  
Feb-12  
Mar-12  
Apr-12  
May-12  
Jun-12  
Jul-12  
Aug-12  
Sep-12  
Oct-12  
Nov-12  
Dec-12  
Jan-13  
Feb-13  
Mar-13  
Apr-13  
May-13  
Jun-13  
Jul-13  
Aug-13  
Sep-13  
Oct-13  
Nov-13  
Dec-13  
Jan-14  
Feb-14  
Mar-14

Apr-14  
May-14  
Jun-14  
Jul-14  
Aug-14  
Sep-14  
Oct-14  
Nov-14  
Dec-14  
Jan-15  
Feb-15  
Mar-15  
Apr-15  
May-15  
Jun-15  
Jul-15  
Aug-15  
Sep-15  
Oct-15  
Nov-15  
Dec-15  
Jan-16  
Feb-16  
Mar-16  
Apr-16  
May-16  
Jun-16  
Jul-16  
Aug-16  
Sep-16  
Oct-16  
Nov-16  
Dec-16  
Jan-17  
Feb-17  
Mar-17  
Apr-17  
May-17

Jun-17  
Jul-17  
Aug-17  
Sep-17  
Oct-17  
Nov-17  
Dec-17  
Jan-18  
Feb-18  
Mar-18  
Apr-18  
May-18  
Jun-18  
Jul-18  
Aug-18  
Sep-18  
Oct-18  
Nov-18  
Dec-18  
Jan-19  
Feb-19  
Mar-19  
Apr-19  
May-19  
Jun-19  
Jul-19  
Aug-19  
Sep-19  
Oct-19  
Nov-19  
Dec-19  
Jan-20  
Feb-20  
Mar-20  
Apr-20  
May-20  
Jun-20  
Jul-20

Aug-20  
Sep-20  
Oct-20  
Nov-20  
Dec-20

BASE  
 2/18/05

5

7

	PJM - AD		Avg. All Hrs
	On-Peak	Off-Peak	
Jan-05	2005	2005	
Feb-05	2006	2006	
Mar-05	2007	2007	
Apr-05	2008	2008	
May-05	2009	2009	
Jun-05	2010	2010	
Jul-05	2011	2011	
Aug-05	2012	2012	
Sep-05	2013	2013	
Oct-05	2014	2014	
Nov-05	2015	2015	
Dec-05	2016	2016	
Jan-06	2017	2017	
Feb-06	2018	2018	
Mar-06	2019	2019	
Apr-06	2020	2020	
May-06			
Jun-06			
Jul-06			
Aug-06			
Sep-06			
Oct-06			
Nov-06			
Dec-06			
Jan-07			
Feb-07			
Mar-07			
Apr-07			
May-07			
Jun-07			
Jul-07			
Aug-07			
Sep-07			
Oct-07			
Nov-07			
Dec-07			
Jan-08			
Feb-08			



Mar-08  
Apr-08  
May-08  
Jun-08  
Jul-08  
Aug-08  
Sep-08  
Oct-08  
Nov-08  
Dec-08  
Jan-09  
Feb-09  
Mar-09  
Apr-09  
May-09  
Jun-09  
Jul-09  
Aug-09  
Sep-09  
Oct-09  
Nov-09  
Dec-09  
Jan-10  
Feb-10  
Mar-10  
Apr-10  
May-10  
Jun-10  
Jul-10  
Aug-10  
Sep-10  
Oct-10  
Nov-10  
Dec-10  
Jan-11  
Feb-11  
Mar-11  
Apr-11  
May-11  
Jun-11  
Jul-11  
Aug-11

Sep-11  
Oct-11  
Nov-11  
Dec-11  
Jan-12  
Feb-12  
Mar-12  
Apr-12  
May-12  
Jun-12  
Jul-12  
Aug-12  
Sep-12  
Oct-12  
Nov-12  
Dec-12  
Jan-13  
Feb-13  
Mar-13  
Apr-13  
May-13  
Jun-13  
Jul-13  
Aug-13  
Sep-13  
Oct-13  
Nov-13  
Dec-13  
Jan-14  
Feb-14  
Mar-14  
Apr-14  
May-14  
Jun-14  
Jul-14  
Aug-14  
Sep-14  
Oct-14  
Nov-14  
Dec-14  
Jan-15  
Feb-15

Mar-15  
Apr-15  
May-15  
Jun-15  
Jul-15  
Aug-15  
Sep-15  
Oct-15  
Nov-15  
Dec-15  
Jan-16  
Feb-16  
Mar-16  
Apr-16  
May-16  
Jun-16  
Jul-16  
Aug-16  
Sep-16  
Oct-16  
Nov-16  
Dec-16  
Jan-17  
Feb-17  
Mar-17  
Apr-17  
May-17  
Jun-17  
Jul-17  
Aug-17  
Sep-17  
Oct-17  
Nov-17  
Dec-17  
Jan-18  
Feb-18  
Mar-18  
Apr-18  
May-18  
Jun-18  
Jul-18  
Aug-18

Sep-18  
Oct-18  
Nov-18  
Dec-18  
Jan-19  
Feb-19  
Mar-19  
Apr-19  
May-19  
Jun-19  
Jul-19  
Aug-19  
Sep-19  
Oct-19  
Nov-19  
Dec-19  
Jan-20  
Feb-20  
Mar-20  
Apr-20  
May-20  
Jun-20  
Jul-20  
Aug-20  
Sep-20  
Oct-20  
Nov-20  
Dec-20

BASE  
 2/18/05

10

12

	Annual	ERCOT South			Avg. All Hrs	SPP
	(Avg. All hrs)	Implied HR (On-P)	On-Peak	Off-Peak		
	PJM - AD					
Jan-05	2005					2005
Feb-05	2006					2006
Mar-05	2007					2007
Apr-05	2008					2008
May-05	2009					2009
Jun-05	2010					2010
Jul-05	2011					2011
Aug-05	2012					2012
Sep-05	2013					2013
Oct-05	2014					2014
Nov-05	2015					2015
Dec-05	2016					2016
Jan-06	2017					2017
Feb-06	2018					2018
Mar-06	2019					2019
Apr-06	2020					2020
May-06						
Jun-06						
Jul-06						
Aug-06						
Sep-06						
Oct-06						
Nov-06						
Dec-06						
Jan-07						
Feb-07						
Mar-07						
Apr-07						
May-07						
Jun-07						
Jul-07						
Aug-07						
Sep-07						
Oct-07						
Nov-07						
Dec-07						
Jan-08						
Feb-08						

Mar-08  
Apr-08  
May-08  
Jun-08  
Jul-08  
Aug-08  
Sep-08  
Oct-08  
Nov-08  
Dec-08  
Jan-09  
Feb-09  
Mar-09  
Apr-09  
May-09  
Jun-09  
Jul-09  
Aug-09  
Sep-09  
Oct-09  
Nov-09  
Dec-09  
Jan-10  
Feb-10  
Mar-10  
Apr-10  
May-10  
Jun-10  
Jul-10  
Aug-10  
Sep-10  
Oct-10  
Nov-10  
Dec-10  
Jan-11  
Feb-11  
Mar-11  
Apr-11  
May-11  
Jun-11  
Jul-11  
Aug-11

Sep-11  
Oct-11  
Nov-11  
Dec-11  
Jan-12  
Feb-12  
Mar-12  
Apr-12  
May-12  
Jun-12  
Jul-12  
Aug-12  
Sep-12  
Oct-12  
Nov-12  
Dec-12  
Jan-13  
Feb-13  
Mar-13  
Apr-13  
May-13  
Jun-13  
Jul-13  
Aug-13  
Sep-13  
Oct-13  
Nov-13  
Dec-13  
Jan-14  
Feb-14  
Mar-14  
Apr-14  
May-14  
Jun-14  
Jul-14  
Aug-14  
Sep-14  
Oct-14  
Nov-14  
Dec-14  
Jan-15  
Feb-15

Mar-15  
Apr-15  
May-15  
Jun-15  
Jui-15  
Aug-15  
Sep-15  
Oct-15  
Nov-15  
Dec-15  
Jan-16  
Feb-16  
Mar-16  
Apr-16  
May-16  
Jun-16  
Jul-16  
Aug-16  
Sep-16  
Oct-16  
Nov-16  
Dec-16  
Jan-17  
Feb-17  
Mar-17  
Apr-17  
May-17  
Jun-17  
Jul-17  
Aug-17  
Sep-17  
Oct-17  
Nov-17  
Dec-17  
Jan-18  
Feb-18  
Mar-18  
Apr-18  
May-18  
Jun-18  
Jul-18  
Aug-18



Sep-18  
Oct-18  
Nov-18  
Dec-18  
Jan-19  
Feb-19  
Mar-19  
Apr-19  
May-19  
Jun-19  
Jul-19  
Aug-19  
Sep-19  
Oct-19  
Nov-19  
Dec-19  
Jan-20  
Feb-20  
Mar-20  
Apr-20  
May-20  
Jun-20  
Jul-20  
Aug-20  
Sep-20  
Oct-20  
Nov-20  
Dec-20