

NP

Schedules
for the Supplemental Rebuttal Testimony
of
MGE Witness Langston

NP

HC

Schedule MTL-37, pages 1-5
Are Highly Confidential

HC

Schedule MTL-37

	A	B	C	D	E	F	G	H	I	J
1	Missouri Gas Energy									
2	GR-2001-382									
3										
4	Table 1: First of Month Nominations on Duke must be made 6 business days before FOM. So, Staff reviewed decisions made on 10/24/00, 11/22/00, 12/21/00, 1/24/01, and 2/21/01.									
5										
6	Information Known As Of:		10/24/2000	11/22/2000		12/21/2000		1/24/2001	2/21/2001	
7	From Storage Analysis Report:		Oct-00	Nov-00		Dec-00		Jan-01	Feb-01	
8	Forecasted demand and storage inj & w/d entered for actual HDD through:		10/23/2000	11/21/2000		12/20/2000	Rev 12/20 to include 12/31 ⁴	1/23/2001	2/20/2001	
9	Actual HDD through this date		256	838		1,368	1,368	1,076	956	
10	Forecasted HDD for remainder of month		77	246		514	553	254	231	
11	Known & expected HDD for month		333	1,084		1,882	1,921	1,330	1,187	
12	Expected monthly HDD as % of normal HDD (calculated this - not in report)			165.0%		175.4%	179.0%	109.2%	125.5%	
13	EOM Storage Balances				Revised Nov-00 to include ISS ³		Rev 12/20 to include 12/31 ⁴			
14	TSS		14,948,357	10,708,780	11,208,780	4,227,928	4,112,139	3,927,321	1,637,647	
15	FSS		1,121,968	1,121,952	1,121,952	1,041,777	1,041,777	1,041,777	1,041,777	
16	PEPLWS		1,453,926	1,009,107	1,009,107	598,035	591,696	372,676	169,435	
17	Total Storage Inventory		17,524,251	12,839,839	13,339,839	5,867,740	5,745,612	5,341,774	2,848,859	
18	% of MSQ		98.6%	72.3%	75.1%	33.0%	32.3%	30.1%	16.0%	
19	Inventory remaining to be filled ¹		243,378							
20	From Company Reliability Report:		Nov-00	Dec-00		Jan-01		Feb-01	Mar-01	
21	Forecasted Demand:									
22	Base Case - 30 Year Normal Weather		7,400,361	12,375,465		13,868,421		11,213,497	8,423,472	
23	Low Case		5,587,935	10,592,504		10,077,482		8,819,953	6,845,539	
24	High Case		9,140,788	17,896,663		16,186,584		13,732,070	10,514,864	
25	Historical HDD data:		Nov-00	Dec-00		Jan-01		Feb-01	Mar-01	
26	warmest month HDD		398	763		841		646	529	
27	normal month HDD		657	1,073		1,218		946	691	
28	coldest month HDD		877	1,606		1,629		1,274	1,057	
29	Using Company heatload & baseload factors in Reliability Report w/ historical HDD		Nov-00	Dec-00		Jan-01		Feb-01	Mar-01	
30	Number of days in month		30	31		31		28	31	
31	estimated demand w/ warmest HDD		5,591,673	9,457,584		10,273,551		8,090,819	7,009,684	
32	estimated demand w/ normal HDD		8,301,101	12,700,529		14,217,391		11,229,153	8,704,384	
33	estimated demand w/ coldest HDD		10,602,546	18,276,302		18,516,908		14,660,398	12,533,151	
34	From Company Supply/Demand Summary:		Nov-00	Dec-00		Jan-01		Feb-01	Mar-01	
35	Normal Monthly Demand		7,425,361	12,400,465		13,893,421		11,238,497	8,448,472	
36	Daily Average Demand		247,512	400,015		448,175		401,375	272,531	
37	Demand to be met w/ storage w/d²									
38	TSS		138,333	91,935		49,355		79,914	61,115	
39	FSS		0	0		0		0	0	
40	PEPLWS		4,272	6,339		6,615		6,994	4,120	
41	Total Storage w/d		142,605	98,274		55,970		86,908	65,235	
42	Fuel Requirements		2,715	7,909		13,036		10,426	6,810	
43	Daily Avg Demand still to be met (with flowing or ?)		107,622	309,650		405,241		324,893	214,106	
44	Less Planned Flowing Supplies		107,622	289,650		405,241		304,893	189,106	
45	Daily Avg Demand still to be met with _____		0	20,000		0		20,000	25,000	
46	From DR28 response:		Nov-00	Dec-00		Jan-01		Feb-01	Mar-01	
47	Planned Normal Storage Withdrawals		4,150,166	3,454,240		3,464,251		3,162,867	2,247,507	
48										
49										

Source: Jenkins Supplemental Direct Workpaper titled
 "MGE Scenario-no change except for Nov and Dec 99 as warmest - contains error" -
 from worksheet tab titled "FOM Plans"

Schedule MTL-37

	A	B	C	D	E	F	G	H	I	J
1	Missouri Gas Energy									
2	GR-2001-382									
3										
50	Table 2: Storage Inventory - Actuals		EOM Storage Inventory ⁵							
51			Sep-00	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	
52		Williams SA-0014 (TSS)	14,122,908	15,593,505	9,966,153	3,747,983	3,784,819	2,515,613	870,709	
53		Williams SA-0072 (FS)	975,369	1,121,952	1,121,952	1,041,777	1,041,777	41,777	0	
54		PEPL WS-012626	778,088	0	0	0	0	0	0	
55		PEPL WS-012627	165,143	1,051,108	1,004,903	575,538	368,179	169,435	39,824	
56		Total	16,041,508	17,766,565	12,093,008	5,365,298	5,194,775	2,726,825	910,533	
57										
58										
59	Given the information known when decisions were made regarding first-of-month nominations, Staff believes that the FOM nominations would have been different - November FOM nominations would have been higher to allow storage to be reserved for the normally colder months of December and January and to assure that the Company had sufficient withdrawal capabilities to cover a possible late winter cold snap. Storage balances and FOM nominations for this option is presented below:									
60										
61										
62										
63	Table 3-1: Storage withdrawals expected based on distribution of normal HDD									
64		Normal HDD	Monthly Distr.	Storage Distr.	Storage distribution is based on the percentage of normal HDD occurring in that month times the total storage inventory. For November, would use the total MSQ less 500,000 allowed by Company for injections in Nov if weather is warmer than normal. For Dec - Mar, Company would know the beginning balance at start of November, so adjust accordingly - including additional 150,000 ISS allowed in Nov. check: Oct end-of-month inv = 17,766,565 total expected storage if adjust Nov by 150,000 from ISS 17,739,170					
65	Nov-00	657	14.3%	2,474,336						
66	Dec-00	1,073	23.4%	4,122,699						
67	Jan-01	1,218	26.6%	4,679,820						
68	Feb-01	946	20.6%	3,634,737						
69	Mar-01	691	15.1%	2,677,578						
70	Total	4,585	100.0%	17,589,170						
71										
72										
73										
74	Table 3-2: Staff's calculation of expected storage withdrawal and flowing supplies for Company planned normals									
75			Nov-00	Nov-00 Rev	Dec-00	Dec-00 Rev	Jan-01	Feb-01	Mar-01	
76	Normal Monthly Demand		7,425,361	7,425,361	12,400,465	12,400,465	13,893,421	11,238,497	8,448,472	
77	Daily Average Demand		247,512	247,512	400,015	400,015	448,175	401,375	272,531	
78	Daily Demand to be met w/ storage w/d		82,478		132,990		150,962	129,812	86,373	
79	plus storage w/d allowed for ISS in Nov		5,000							
80	less storage for excess from prior month				(24,726)		(108,830)	47,544	16,145	
81	Subtotal of daily storage w/d		87,478	108,076	108,264	90,393	42,132	177,356	102,518	
82	Daily Fuel Requirements		2,715	2,715	7,909	7,909	13,036	10,426	6,810	
83	Expected Daily Flowing Supplies		162,749	142,151	299,660	317,531	419,079	234,445	176,823	
84	% of planned normal met with storage (includes fuel)		35.0%	43.2%	26.5%	22.2%	9.1%	43.1%	36.7%	
85	% of planned normal met with flowing supplies (includes fuel)		65.0%	56.8%	73.5%	77.8%	90.9%	56.9%	63.3%	
86	Check if planned daily flowing covers warm weather requirements (used Company numbers for low-case)		147,151		317,531		325,080	314,998	220,824	
87										
88	storage would need to be adjusted prior to making nominations based on expected end-of-month inventory for previous month		This is the warm weather requirement less 150,000 for ISS in Nov		This is the warm weather requirement less any excess storage w/d not pulled in Nov		Did not adjust for Feb & Mar - not as much of an issue in Feb and Mar since most of winter has past and have better handle on storage volumes available to meet requirements for the rest of the winter			
89										
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	A	B	C	D	E	F	G	H	I	J
1	Missouri Gas Energy									
2	GR-2001-382									
3										
91	Table 3-3: Effect of revised daily flowing supplies on expected end-of-month (EOM) storage inventory									
92	Information Known As Of:		11/22/2000	12/21/2000	1/24/2001	2/21/2001				
93	From Storage Analysis Report:		Nov-00	Dec-00	Jan-01	Feb-01				
94	Forecasted demand and storage inj & w/d entered for actual HDD through:		11/21/2000	12/20/2000	1/23/2001	2/20/2001				
95	Actual HDD through this date		838	1,368	1,076	956				
96	Forecasted HDD for remainder of month		246	553	254	231				
97	Known & expected HDD for month		1,084	1,921	1,330	1,187				
98	Expected monthly HDD as % of normal HDD (calculated this - not in report)		165.0%	179.0%	109.2%	125.5%				
99	Revised Expected EOM Storage Balances:									
100	EOM Storage Balances from above		13,339,839	5,745,612	5,341,774	2,848,859				
101	Plus additional inv from prior month(s)			1,035,870	1,900,181	2,329,159				
102	Plus additional demand that would have been covered with flowing supplies instead of storage w/d		1,035,870	864,311	428,978	(1,972,544)				
103			14,375,709	7,645,793	7,670,933	3,205,474				
104	Storage inv expected for normal weather		15,142,225	11,019,530	6,339,710	2,704,973				
105	Excess from storage for colder weather		766,516	3,373,737	(1,331,223)	(500,501)				
106	So need to recover any excess w/d in next month (per day) or can w/d any additional storage		24,726	108,830	(47,544)	(16,145)				
107										
108										
109	Table 3-4: Effect of revised daily flowing supplies on actual end-of-month storage inventory									
110			Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Total		
111	Actual EOM Storage Balances		12,093,008	5,365,298	5,194,775	2,726,825	910,533	16,856,032	Actual	
112	Plus additional inv from prior month(s)			1,035,870	1,900,181	2,329,159	356,615			
113	Plus additional demand that would have been covered with flowing supplies instead of storage w/d		1,035,870	864,311	428,978	(1,972,544)	(380,773)			
114			13,128,878	7,265,479	7,523,934	3,083,440	886,375			
115	Actual Expected Net Withdrawals		4,637,687	5,863,399	(258,455)	4,440,494	2,197,065	16,880,190	Expected	
116										
117	Table 3-5: Comparison of Company and Staff FOM planned flowing supplies and storage withdrawals									
118	Company Planned Demand to be met with:						Staff revision: Expected storage withdrawal and flowing supplies for Company planned normals:			
119		Normal Daily Avg Demand + Fuel	Daily Flowing Supplies	Flowing Supplies as % of Daily Avg for Month	Daily Storage w/d ⁶	Storage as % of Daily Avg for Month	Daily Flowing Supplies	Flowing Supplies as % of Daily Avg for Month	Daily Storage w/d ⁶	Storage as % of Daily Avg for Month
120	Nov-00	250,227	107,622	43.0%	142,605	57.0%	142,151	56.8%	108,076	43.2%
121	Dec-00	407,924	289,650	71.0%	98,274	24.1%	317,531	77.8%	90,393	22.2%
122	Jan-01	461,211	405,241	87.9%	55,970	12.1%	419,079	90.9%	42,132	9.1%
123	Feb-01	411,801	304,893	74.0%	86,908	21.1%	234,445	56.9%	177,356	43.1%
124	Mar-01	279,341	189,106	67.7%	65,235	23.4%	176,823	63.3%	102,518	36.7%
125										
126										
127										

Source: Jenkins Supplemental Direct Workpaper titled
 "MGE Scenario-no change except for Nov and Dec 99 as warmest - contains error" -
 from worksheet tab titled "FOM Plans"

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2	GR-2001-382									
3										
128	¹ Company states that wants to allow 500,000 so that if November is warmer than normal, still have room to inject; Company also stated in									
129	DR62 since storage was fuller than anticipated moved 500,000 to an ISS contract to allow for November injections									
130	² Storage w/d planned for Nov-00 would include planned 4,000,000 TSS + 150,000 ISS (or 138,333/day) plus the PEPL/WS w/d (128,160									
131	planned for November compared to 150,166 noted as normal w/d in the DR28 response)									
132	³ Report for numbers in previous column shows Oct 31 balance as 15,093,505 which would not include the ISS balance of 500,000 so TSS is									
133	adjusted to account for the ISS									
134	⁴ The forecasted HDD for the remainder of Dec is only through 12/30/00; so the HDD and the storage balances are adjusted to include									
135	12/31/00 - based on Company rationale. Additional demand for 39 HDD is 433,822 (taken from 12/2 which had 39 HDD).									
136	So if 12/31 demand is: 433,822									
137	These are taken from the Storage Analysis Report and are the same each day for the forecasted dates of 12/21 - 12/30									
138	{ (51,219) KN 107th & Elm									
139	{ (9,997) Served KPOC									
140	{ (25,835) Served PEPL (this looks like it includes WS and Dec									
141	{ (230,982) WNG Flowing plan is 6,339/day from WS)									
	{ 115,789 needed from TSS									
142	⁵ Company states that storage reports available from Williams about the 13th of the month for the prior month. So Company knew actual prior									
143	months EOM balance when nominations made for following month.									
144	⁶ Recall that November storage withdrawals allow for 5,000 per day from ISS									

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Is Highly Confidential

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Missouri Gas Energy
GR-2001-382

Month	NYMEX	
	Closing Price	Date
November, 2000	4.541	10/28/00
December, 2000	6.016	11/28/00
January, 2001	9.978	12/27/00
February, 2001	6.293	1/29/01
March, 2001	4.998	2/26/01

Source: NYMEX closing prices taken from The Wall Street Journal

Source: Jenkins Supplemental Direct Workpaper titled
"MGE Scenario-no change except for Nov and Dec 99 as warmest - contains error" -
from worksheet tab titled "NYMEX close"

Schedule MTL-37

MGE

Case No. GR-2001-387

Schedule B

Month of purchase	Month Hedged				
	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01
Jun-00	4.312	4.388	4.376	4.138	3.898
Jul-00	4.048	4.136	4.129	3.942	3.758
Aug-00	4.520	4.591	4.557	4.308	4.063
Sep-00	5.240	5.340	5.298	5.028	4.752
Oct-00	5.139	5.177	5.166	4.959	4.724
Average	4.652	4.726	4.705	4.475	4.239

Source: Nymex closing prices simple average by month

Date: March 22, 2002

June	6/1/00	6/2/00	6/5/00	6/6/00	6/7/00	6/8/00	6/9/00	6/12/00	6/13/00	6/14/00	6/15/00	6/16/00	6/19/00	6/20/00	6/21/00	6/22/00	6/23/00	6/26/00	6/27/00	6/28/00	6/29/00	6/30/00	Avg
Nov-00	4.150	4.092	4.383	4.286	3.983	4.140	4.155	4.215	4.168	4.250	4.404	4.455	4.155	4.186	4.413	4.543	4.446	4.525	4.600	4.415	4.423	4.466	4.312
Dec-00	4.250	4.187	4.465	4.355	4.070	4.215	4.220	4.280	4.240	4.320	4.470	4.530	4.230	4.285	4.500	4.620	4.521	4.595	4.665	4.485	4.493	4.536	4.388
Jan-01	4.260	4.192	4.465	4.350	4.070	4.205	4.210	4.268	4.232	4.309	4.454	4.513	4.213	4.275	4.486	4.600	4.503	4.575	4.640	4.465	4.471	4.516	4.376
Feb-01	4.055	3.990	4.245	4.135	3.860	3.990	3.994	4.049	4.015	4.082	4.216	4.271	3.971	4.040	4.236	4.342	4.243	4.297	4.360	4.195	4.200	4.240	4.138
Mar-01	3.845	3.785	4.020	3.920	3.652	3.773	3.776	3.830	3.798	3.855	3.976	4.021	3.730	3.810	3.980	4.078	3.983	4.019	4.080	3.925	3.930	3.965	3.898

July	7/5/00	7/6/00	7/7/00	7/10/00	7/11/00	7/12/00	7/13/00	7/14/00	7/17/00	7/18/00	7/19/00	7/20/00	7/21/00	7/24/00	7/25/00	7/26/00	7/27/00	7/28/00	7/31/00	Avg
Nov-00	4.166	4.100	4.302	4.290	4.306	4.101	4.218	4.205	4.084	4.085	3.955	3.932	3.907	3.810	3.760	3.890	3.951	3.956	3.906	4.048
Dec-00	4.236	4.185	4.390	4.385	4.400	4.195	4.305	4.295	4.150	4.165	4.043	4.015	3.987	3.892	3.843	3.975	4.050	4.061	4.020	4.136
Jan-01	4.216	4.180	4.380	4.380	4.395	4.191	4.295	4.280	4.138	4.150	4.034	4.005	3.979	3.890	3.841	3.970	4.048	4.060	4.019	4.129
Feb-01	3.95	3.945	4.145	4.150	4.175	3.981	4.090	4.090	3.963	3.975	3.866	3.842	3.819	3.735	3.696	3.810	3.888	3.905	3.869	3.942
Mar-01	3.7	3.705	3.905	3.920	3.955	3.786	3.895	3.900	3.788	3.802	3.702	3.682	3.659	3.585	3.553	3.660	3.738	3.753	3.719	3.758

August	8/1/00	8/2/00	8/3/00	8/4/00	8/7/00	8/8/00	8/9/00	8/10/00	8/11/00	8/14/00	8/15/00	8/16/00	8/17/00	8/18/00	8/21/00	8/22/00	8/23/00	8/24/00	8/25/00	8/28/00	8/29/00	8/30/00	8/31/00	Avg
Nov-00	4.080	4.297	4.342	4.360	4.390	4.437	4.455	4.488	4.495	4.371	4.299	4.474	4.491	4.530	4.800	4.590	4.652	4.602	4.683	4.736	4.697	4.850	4.840	4.520
Dec-00	4.180	4.395	4.442	4.440	4.450	4.483	4.505	4.538	4.550	4.445	4.373	4.535	4.575	4.618	4.862	4.665	4.720	4.670	4.750	4.800	4.770	4.920	4.910	4.591
Jan-01	4.175	4.385	4.432	4.425	4.425	4.460	4.477	4.510	4.522	4.422	4.353	4.505	4.540	4.579	4.810	4.625	4.667	4.620	4.696	4.744	4.720	4.861	4.850	4.557
Feb-01	4.005	4.190	4.227	4.205	4.180	4.200	4.212	4.245	4.258	4.177	4.120	4.249	4.284	4.324	4.540	4.368	4.399	4.352	4.432	4.480	4.465	4.590	4.580	4.308
Mar-01	3.840	3.995	4.022	3.990	3.938	3.948	3.955	3.986	4.001	3.942	3.895	4.000	4.035	4.074	4.267	4.110	4.133	4.089	4.162	4.213	4.205	4.323	4.315	4.063

September	9/1/00	9/5/00	9/6/00	9/7/00	9/8/00	9/11/00	9/12/00	9/13/00	9/14/00	9/15/00	9/18/00	9/19/00	9/20/00	9/21/00	9/22/00	9/25/00	9/26/00	9/27/00	9/28/00	9/29/00	Avg
Nov-00	4.965	5.030	5.157	5.100	4.999	5.135	5.105	5.157	5.312	5.300	5.394	5.477	5.433	5.402	5.266	5.412	5.450	5.447	5.124	5.186	5.240
Dec-00	4.975	5.104	5.233	5.187	5.100	5.235	5.209	5.260	5.412	5.400	5.495	5.585	5.548	5.517	5.383	5.525	5.565	5.562	5.231	5.281	5.340
Jan-01	4.915	5.043	5.172	5.140	5.070	5.203	5.178	5.225	5.367	5.355	5.445	5.525	5.495	5.470	5.350	5.485	5.525	5.522	5.222	5.256	5.298
Feb-01	4.640	4.763	4.884	4.865	4.815	4.938	4.913	4.955	5.088	5.075	5.152	5.228	5.210	5.203	5.100	5.225	5.260	5.257	4.971	5.026	5.028
Mar-01	4.365	4.483	4.597	4.580	4.540	4.661	4.636	4.675	4.799	4.785	4.855	4.930	4.923	4.923	4.840	4.960	4.990	4.988	4.727	4.778	4.752

October	10/2/00	10/3/00	10/4/00	10/5/00	10/6/00	10/9/00	10/10/00	10/11/00	10/12/00	10/13/00	10/16/00	10/17/00	10/18/00	10/19/00	10/20/00	10/23/00	10/24/00	10/25/00	10/26/00	10/27/00	10/30/00	10/31/00	Avg
Nov-00	5.352	5.348	5.290	5.152	5.008	5.150	5.134	5.508	5.630	5.537	5.364	5.439	5.228	4.951	4.937	5.072	4.820	4.659	4.664	4.541			5.139
Dec-00	5.435	5.438	5.383	5.248	5.113	5.250	5.236	5.599	5.728	5.649	5.492	5.553	5.349	5.071	5.055	5.193	4.940	4.771	4.753	4.652	4.485	4.490	5.177
Jan-01	5.400	5.398	5.348	5.215	5.085	5.217	5.211	5.511	5.693	5.624	5.475	5.535	5.344	5.081	5.062	5.200	4.960	4.795	4.777	4.677	4.520	4.531	5.166
Feb-01	5.160	5.158	5.118	5.000	4.881	5.007	5.001	5.301	5.442	5.377	5.242	5.295	5.121	4.891	4.875	5.000	4.780	4.612	4.597	4.497	4.352	4.381	4.959
Mar-01	4.905	4.903	4.864	4.765	4.658	4.769	4.764	5.058	5.180	5.122	4.991	5.040	4.877	4.658	4.646	4.757	4.555	4.400	4.382	4.287	4.157	4.191	4.724

Source: Jenkins Supplemental Direct Workpaper titled "MGE Scenario-no change except for Nov and Dec 99 as warmest - contains error" - from worksheet tab titled "Available Hedge Price"

Schedule MTL-37

MGE Case No. GR-2001-382

Calculation of capacity release adjustment

Sources: MGE Capacity Release Commodity Rate Comparison and Staff's KPC adjustment workpaper

	WNG Williams FOM index	fuel KPC vs WNG % difference	fuel difference \$	commodity difference KPC vs WNG	Total Fuel & Commodity
July, 2000	4.20	1.28%	\$0.0538	\$0.0440	\$0.0978
August, 2000	3.69	1.28%	\$0.0472	\$0.0440	\$0.0912
September, 2000	4.50	1.28%	\$0.0576	\$0.0440	\$0.1016
October, 2000	5.19	1.28%	\$0.0664	\$0.0440	\$0.1104
November, 2000	4.43	1.28%	\$0.0567	\$0.0440	\$0.1007
December, 2000	5.90	1.28%	\$0.0755	\$0.0440	\$0.1195
January, 2001	9.98	1.28%	\$0.1277	\$0.0440	\$0.1717
February, 2001	6.29	1.28%	\$0.0805	\$0.0440	\$0.1245
March, 2001	5.03	1.28%	\$0.0644	\$0.0440	\$0.1084
April, 2001	5.34	1.28%	\$0.0684	\$0.0440	\$0.1124
May, 2001	4.82	1.28%	\$0.0617	\$0.0440	\$0.1057
June, 2001	3.66	1.28%	\$0.0468	\$0.0440	\$0.0908

Source for index: Inside FERC Gas Market Report

	Williams	KPC
Production Area Commodity Rate	0.0124	n/a
Market Area Commodity Rate	0.0061	0.0625
Total Commodity Rate	0.0185	0.0625
Production Area Fuel Rate	1.64%	n/a
Market Area Fuel Rate	0.69%	3.61%
Total Fuel Rate	2.33%	3.61%

		Monthly Volumes	Williams Reservation Market	Williams Reservation Production	Williams Total Reservation	Non-recallable Release Credit 75% max rt.	Unit offset fuel & commodity	Total fuel & commodity offset	Net non-recall Release Credit
July, 2000	46,332	1436292	\$ 3.0848	\$ 5.77	\$8.86	307,771.89	\$0.0978	\$140,411.91	167,359.99
August, 2000	46,332	1436292	\$ 3.0848	\$ 5.77	\$8.86	307,771.89	\$0.0912	\$131,035.79	176,736.10
September, 2000	46,332	1389960	\$ 3.0848	\$ 5.77	\$8.86	307,771.89	\$0.1016	\$141,219.94	166,551.96
October, 2000	46,332	1436292	\$ 3.0848	\$ 5.77	\$8.86	307,771.89	\$0.1104	\$158,612.60	149,159.29
April, 2001	46,332	1389960	\$ 3.0168	\$ 5.77	\$8.79	305,408.96	\$0.1124	\$156,164.79	149,244.18
May, 2001	46,332	1436292	\$ 3.0168	\$ 5.77	\$8.79	305,408.96	\$0.1057	\$151,810.32	153,598.64
June, 2001	46,332	1389960	\$ 3.0168	\$ 5.77	\$8.79	305,408.96	\$0.0908	\$126,275.09	179,133.87
									1,141,784.03

Source: Jenkins Supplemental Direct Workpaper titled "MGE Scenario-no change except for Nov and Dec 99 as warmest - contains error" - from worksheet tab titled "Capacity Release"

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Are Highly Confidential

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Schedule MTL-38

	A	B	C	D	E	F	G	H	I	J
1	Missouri Gas Energy									
2	GR-2001-382									
3										
4	Table 1: First of Month Nominations on Duke must be made 6 business days before FOM. So, Staff reviewed decisions made on 10/24/00, 11/22/00, 12/21/00, 1/24/01, and 2/21/01.									
5										
6	Information Known As Of:		10/24/2000	11/22/2000		12/21/2000		1/24/2001	2/21/2001	
7	From Storage Analysis Report:		Oct-00	Nov-00		Dec-00		Jan-01	Feb-01	
8	Forecasted demand and storage inj & w/d entered for actual HDD through:		10/23/2000	11/21/2000		12/20/2000	Rev 12/20 to include 12/31 ⁴	1/23/2001	2/20/2001	
9	Actual HDD through this date		256	838		1,368	1,368	1,076	956	
10	Forecasted HDD for remainder of month		77	246		514	553	254	231	
11	Known & expected HDD for month		333	1,084		1,882	1,921	1,330	1,187	
12	Expected monthly HDD as % of normal HDD (calculated this - not in report)			165.0%		175.4%	179.0%	109.2%	125.5%	
13	EOM Storage Balances				Revised Nov-00 to include ISS ³		Rev 12/20 to include 12/31 ⁴			
14	TSS	14,948,357	10,708,780	11,208,780	4,227,928	4,112,139	3,927,321	1,637,647		
15	FSS	1,121,968	1,121,952	1,121,952	1,041,777	1,041,777	1,041,777	1,041,777		
16	PEPL/WS	1,453,926	1,009,107	1,009,107	598,035	591,696	372,676	169,435		
17	Total Storage Inventory	17,524,251	12,839,839	13,339,839	5,867,740	5,745,612	5,341,774	2,848,859		
18	% of MSQ	98.6%	72.3%	75.1%	33.0%	32.3%	30.1%	16.0%		
19	Inventory remaining to be filled ¹		243,378							
20	From Company Reliability Report:		Nov-00	Dec-00		Jan-01		Feb-01	Mar-01	
21	Forecasted Demand:									
22	Base Case - 30 Year Normal Weather		7,400,361	12,375,465		13,868,421		11,213,497	8,423,472	
23	Low Case		5,587,935	10,592,504		10,077,482		8,819,953	6,845,539	
24	Low Case- Rev for Nov and Dec (from Company Schedule MTL-14, Langston Direct)		4,414,515	9,843,466		10,077,482		8,819,953	6,845,539	
25	High Case		9,140,788	17,896,663		16,186,584		13,732,070	10,514,864	
26	Historical HDD data:		Nov-00	Dec-00		Jan-01		Feb-01	Mar-01	
27	warmest month HDD		398	763		841		646	529	
28	normal month HDD		657	1,073		1,218		946	691	
29	coldest month HDD		877	1,606		1,629		1,274	1,057	
30	Using Company heatload & baseload factors in Reliability Report w/ historical HDD		Nov-00	Dec-00		Jan-01		Feb-01	Mar-01	
31	Number of days in month		30	31		31		28	31	
32	estimated demand w/ warmest HDD		5,591,673	9,457,584		10,273,551		8,090,819	7,009,684	
33	estimated demand w/ normal HDD		8,301,101	12,700,529		14,217,391		11,229,153	8,704,384	
34	estimated demand w/ coldest HDD		10,602,546	18,276,302		18,516,908		14,660,398	12,533,151	
35	From Company Supply/Demand Summary:		Nov-00	Dec-00		Jan-01		Feb-01	Mar-01	
36	Normal Monthly Demand		7,425,361	12,400,465		13,893,421		11,238,497	8,448,472	
37	Daily Average Demand		247,512	400,015		448,175		401,375	272,531	
38	Demand to be met w/ storage w/d ²									
39	TSS		138,333	91,935		49,355		79,914	61,115	
40	FSS		0	0		0		0	0	
41	PEPL/WS		4,272	6,339		6,615		6,994	4,120	
42	Total Storage w/d		142,605	98,274		55,970		86,908	65,235	
43	Fuel Requirements		2,715	7,909		13,036		10,426	6,810	
44	Daily Avg Demand still to be met (with flowing or ?)		107,622	309,650		405,241		324,893	214,106	
45	Less Planned Flowing Supplies		107,622	289,650		405,241		304,893	189,106	
46	Daily Avg Demand still to be met with _____		0	20,000		0		20,000	25,000	
47	From DR28 response:		Nov-00	Dec-00		Jan-01		Feb-01	Mar-01	
48	Planned Normal Storage Withdrawals		4,150,166	3,454,240		3,464,251		3,162,867	2,247,507	
49										
50										

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1	Missouri Gas Energy									
2	GR-2001-382									
3										
51	Table 2: Storage Inventory - Actuals		EOM Storage Inventory ⁵							
52			Sep-00	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	
53		Williams SA-0014 (TSS)	14,122,908	15,593,505	9,966,153	3,747,983	3,784,819	2,515,613	870,709	
54		Williams SA-0072 (FS)	975,369	1,121,952	1,121,952	1,041,777	1,041,777	41,777	0	
55		PEPL WS-012626	778,088	0	0	0	0	0	0	
56		PEPL WS-012627	165,143	1,051,108	1,004,903	575,538	368,179	169,435	39,824	
57		Total	16,041,508	17,766,565	12,093,008	5,365,298	5,194,775	2,726,825	910,533	
58										
59										
60	Given the information known when decisions were made regarding first-of-month nominations, Staff believes that the FOM nominations would have been different - November FOM nominations would have been higher to allow storage to be reserved for the normally colder months of December and January and to assure that the Company had sufficient withdrawal capabilities to cover a possible late winter cold snap.									
61	Storage balances and FOM nominations for this option is presented below:									
62										
63	Table 3-1: Storage withdrawals expected based on distribution of normal HDD									
64		Normal HDD	Monthly Distr.	Storage Distr.	Storage distribution is based on the percentage of normal HDD occurring in that month times the total storage inventory. For November, would use the total MSQ less 500,000 allowed by Company for injections in Nov if weather is warmer than normal. For Dec - Mar, Company would know the beginning balance at start of November, so adjust accordingly - including additional 150,000 ISS allowed in Nov. check: Oct end-of-month inv = 17,766,565 total expected storage if adjust Nov by 150,000 from ISS 17,739,170					
65	Nov-00	657	14.3%	2,474,336						
66	Dec-00	1,073	23.4%	4,122,699						
67	Jan-01	1,218	26.6%	4,679,820						
68	Feb-01	946	20.6%	3,634,737						
69	Mar-01	691	15.1%	2,677,578						
70	Total	4,585	100.0%	17,589,170						
71										
72										
73										
74	Table 3-2: Staff's calculation of expected storage withdrawal and flowing supplies for Company planned normals									
75			Nov-00	Nov-00 Rev	Dec-00	Dec-00 Rev	Jan-01	Jan-01 Rev	Feb-01	Mar-01
76	Normal Monthly Demand		7,425,361	7,425,361	12,400,465	12,400,465	13,893,421	13,893,421	11,238,497	8,448,472
77	Daily Average Demand		247,512	247,512	400,015	400,015	448,175	448,175	401,375	272,531
78	Daily Demand to be met w/ storage w/d		82,478		132,990		150,962		129,812	86,373
79	plus storage w/d allowed for ISS in Nov		5,000							
80	less storage for excess from prior month				(4,793)		(84,104)		63,964	16,146
81	Subtotal of daily storage w/d		87,478	87,478	128,197	85,600	66,858	52,027	193,776	102,519
82	Daily Fuel Requirements		2,715	2,715	7,909	7,909	13,036	13,036	10,426	6,810
83	Expected Daily Flowing Supplies		162,749	162,749	279,727	322,324	394,353	409,184	218,025	176,822
84	% of planned normal met with storage (includes fuel)		35.0%	35.0%	31.4%	21.0%	14.5%	11.3%	47.1%	36.7%
85	% of planned normal met with flowing supplies (includes fuel)		65.0%	65.0%	68.6%	79.0%	85.5%	88.7%	52.9%	63.3%
86	Check if planned daily flowing covers warm weather requirements (used Company numbers from MTL-14 for Nov & Dec; see Table 1)		147,151		317,531		325,080		314,998	220,824
87	Staff Recommendation uses:									
88	Check if planned daily flowing covers warm weather requirements (used Company numbers for low-case from Reliability Report)		186,265		341,694		325,080		314,998	220,824
89										
90	storage would need to be adjusted prior to making nominations based on expected end-of-month inventory for previous month		Since FOM exceeds warmest month requirement, would not have adjusted FOM.		Since too much storage was pulled in Nov, this is warm weather plus excess w/d in Nov.		Since too much storage was pulled in Dec, this is warm weather plus excess w/d in Dec.		Did not adjust for Feb & Mar - not as much of an issue in Feb and Mar since most of winter has past and have better handle on storage volumes available to meet requirements for the rest of the winter	
91										
92										

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	A	B	C	D	E	F	G	H	I	J
1	Missouri Gas Energy									
2	GR-2001-382									
3										
93	Table 3-3: Effect of revised daily flowing supplies on expected end-of-month (EOM) storage inventory									
94	Information Known As Of:		11/22/2000	12/21/2000	1/24/2001	2/21/2001				
95	From Storage Analysis Report:		Nov-00	Dec-00	Jan-01	Feb-01				
96	Forecasted demand and storage inj & w/d entered for actual HDD through:		11/21/2000	12/20/2000	1/23/2001	2/20/2001				
97	Actual HDD through this date		838	1,368	1,076	956				
98	Forecasted HDD for remainder of month		246	553	254	231				
99	Known & expected HDD for month		1,084	1,921	1,330	1,187				
100	Expected monthly HDD as % of normal HDD (calculated this - not in report)		165.0%	179.0%	109.2%	125.5%				
101	Revised Expected EOM Storage Balances:									
102	EOM Storage Balances from above		13,339,839	5,745,612	5,341,774	2,848,859				
103	Plus additional inv from prior month(s)			1,653,810	2,666,704	2,788,937				
104	Plus additional demand that would have been covered with flowing supplies instead of storage w/d		1,653,810	1,012,894	122,233	(2,432,304)				
105			14,993,649	8,412,316	8,130,711	3,205,492				
106	Storage inv expected for normal weather		15,142,225	11,019,530	6,339,710	2,704,973				
107	Excess from storage for colder weather		148,576	2,607,214	(1,791,001)	(500,519)				
108	So need to recover any excess w/d in next month (per day) or can w/d any additional storage		4,793	84,104	(63,964)	(16,146)				
109										
110										
111	Table 3-4: Effect of revised daily flowing supplies on actual end-of-month storage inventory									
112			Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Total		
113	Actual EOM Storage Balances		12,093,008	5,365,298	5,194,775	2,726,825	910,533	16,856,032	Actual	
114	Plus additional inv from prior month(s)			1,653,810	2,666,704	2,788,937	356,633			
115	Plus additional demand that would have been covered with flowing supplies instead of storage w/d		1,653,810	1,012,894	122,233	(2,432,304)	(380,804)			
116			13,746,818	8,032,002	7,983,712	3,083,458	886,362			
117	Actual Expected Net Withdrawals		4,019,747	5,714,816	48,290	4,900,254	2,197,096	16,880,203	Expected	
118										
119	Table 3-5: Comparison of Company and Staff FOM planned flowing supplies and storage withdrawals									
120	Company Planned Demand to be met with:						Staff revision: Expected storage withdrawal and flowing supplies for Company planned normals:			
121		Normal Daily Avg Demand + Fuel	Daily Flowing Supplies	Flowing Supplies as % of Daily Avg for Month	Daily Storage w/d ⁶	Storage as % of Daily Avg for Month	Daily Flowing Supplies	Flowing Supplies as % of Daily Avg for Month	Daily Storage w/d ⁶	Storage as % of Daily Avg for Month
122	Nov-00	250,227	107,622	43.0%	142,605	57.0%	162,749	65.0%	87,478	35.0%
123	Dec-00	407,924	289,650	71.0%	98,274	24.1%	322,324	79.0%	85,600	21.0%
124	Jan-01	461,211	405,241	87.9%	55,970	12.1%	409,184	88.7%	52,027	11.3%
125	Feb-01	411,801	304,893	74.0%	86,908	21.1%	218,025	52.9%	193,776	47.1%
126	Mar-01	279,341	189,106	67.7%	65,235	23.4%	176,822	63.3%	102,519	36.7%
127										
128										
129										

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	A	B	C	D	E	F	G	H	I	J
1	Missouri Gas Energy									
2	GR-2001-382									
3										
130	¹ Company states that wants to allow 500,000 so that if November is warmer than normal, still have room to inject; Company also stated in DR62 since storage was fuller than anticipated moved 500,000 to an ISS contract to allow for November injections									
131										
132	² Storage w/d planned for Nov-00 would include planned 4,000,000 TSS + 150,000 ISS (or 138,333/day) plus the PEPL/WS w/d (128,160 planned for November compared to 150,166 noted as normal w/d in the DR28 response)									
133										
134	³ Report for numbers in previous column shows Oct 31 balance as 15,093,505 which would not include the ISS balance of 500,000 so TSS is adjusted to account for the ISS									
135										
136	⁴ The forecasted HDD for the remainder of Dec is only through 12/30/00; so the HDD and the storage balances are adjusted to include 12/31/00 - based on Company rationale. Additional demand for 39 HDD is 433,822 (taken from 12/2 which had 39 HDD).									
137	So if 12/31 demand is: 433,822									
138	These are taken from the Storage Analysis Report and are the same									
139	each day for the forecasted dates of 12/21 - 12/30									
140	{ (51,219) KN 107th & Elm									
141	{ (9,997) Served KPOC									
142	{ (25,835) Served PEPL (this looks like it includes WS and Dec plan is 6,339/day from WS)									
143	{ (230,982) WNG Flowing									
144	115,789 needed from TSS									
145										
146	⁵ Company states that storage reports available from Williams about the 13th of the month for the prior month. So Company knew actual prior months EOM balance when nominations made for following month.									
147										
148	⁶ Recall that November storage withdrawals allow for 5,000 per day from ISS									

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Schedule MTL-38

Missouri Gas Energy
GR-2001-382

Month	NYMEX	
	Closing Price	Date
November, 2000	4.541	10/28/00
December, 2000	6.016	11/28/00
January, 2001	9.978	12/27/00
February, 2001	6.293	1/29/01
March, 2001	4.998	2/26/01

Source: NYMEX closing prices taken from The Wall Street Journal

Schedule MTL-38

MGE

Case No. GR-2001-387

Month of purchase	Month Hedged				
	Nov-00	Dec-00	Jan 2001	Feb-01	Mar-01
Jun-00	4.312	4.388	4.376	4.138	3.898
Jul-00	4.048	4.136	4.129	3.942	3.758
Aug-00	4.520	4.591	4.557	4.308	4.063
Sep-00	5.240	5.340	5.298	5.028	4.752
Oct-00	5.139	5.177	5.166	4.959	4.724
Average	4.652	4.726	4.705	4.475	4.239

Source: Nymex closing prices simple average by month
Date: March 22, 2002

June	6/1/00	6/2/00	6/5/00	6/6/00	6/7/00	6/8/00	6/9/00	6/12/00	6/13/00	6/14/00	6/15/00	6/16/00	6/19/00	6/20/00	6/21/00	6/22/00	6/23/00	6/26/00	6/27/00	6/28/00	6/29/00	6/30/00	Avg
Nov-00	4.150	4.092	4.383	4.286	3.983	4.140	4.155	4.215	4.168	4.250	4.404	4.455	4.155	4.186	4.413	4.543	4.446	4.525	4.600	4.415	4.423	4.466	4.312
Dec-00	4.250	4.187	4.465	4.355	4.070	4.215	4.220	4.280	4.240	4.320	4.470	4.530	4.230	4.285	4.500	4.620	4.521	4.595	4.665	4.485	4.493	4.536	4.388
Jan-01	4.260	4.192	4.465	4.350	4.070	4.205	4.210	4.268	4.232	4.309	4.454	4.513	4.213	4.275	4.486	4.600	4.503	4.575	4.640	4.465	4.471	4.516	4.376
Feb-01	4.055	3.990	4.245	4.135	3.860	3.990	3.994	4.049	4.015	4.082	4.216	4.271	3.971	4.040	4.236	4.342	4.243	4.297	4.360	4.195	4.200	4.240	4.138
Mar-01	3.845	3.785	4.020	3.920	3.652	3.773	3.776	3.830	3.798	3.855	3.976	4.021	3.730	3.810	3.980	4.078	3.983	4.019	4.080	3.925	3.930	3.965	3.898

July	7/5/00	7/6/00	7/7/00	7/10/00	7/11/00	7/12/00	7/13/00	7/14/00	7/17/00	7/18/00	7/19/00	7/20/00	7/21/00	7/24/00	7/25/00	7/26/00	7/27/00	7/28/00	7/31/00	Avg
Nov-00	4.166	4.100	4.302	4.290	4.306	4.101	4.218	4.205	4.064	4.085	3.955	3.932	3.907	3.810	3.760	3.890	3.951	3.956	3.906	4.048
Dec-00	4.236	4.185	4.390	4.385	4.400	4.195	4.305	4.295	4.150	4.165	4.043	4.015	3.987	3.892	3.843	3.975	4.050	4.061	4.020	4.136
Jan-01	4.216	4.180	4.380	4.380	4.395	4.191	4.295	4.280	4.138	4.150	4.034	4.005	3.979	3.890	3.841	3.970	4.048	4.060	4.019	4.129
Feb-01	3.95	3.945	4.145	4.150	4.175	3.981	4.090	4.090	3.963	3.975	3.866	3.842	3.819	3.735	3.696	3.810	3.888	3.905	3.869	3.942
Mar-01	3.7	3.705	3.905	3.920	3.955	3.786	3.895	3.900	3.788	3.802	3.702	3.682	3.659	3.585	3.553	3.660	3.738	3.753	3.719	3.758

August	8/1/00	8/2/00	8/3/00	8/4/00	8/7/00	8/8/00	8/9/00	8/10/00	8/11/00	8/14/00	8/15/00	8/16/00	8/17/00	8/18/00	8/21/00	8/22/00	8/23/00	8/24/00	8/25/00	8/28/00	8/29/00	8/30/00	8/31/00	Avg
Nov-00	4.080	4.297	4.342	4.360	4.390	4.437	4.455	4.488	4.495	4.371	4.299	4.474	4.491	4.530	4.800	4.590	4.652	4.602	4.683	4.736	4.697	4.850	4.840	4.520
Dec-00	4.180	4.395	4.442	4.440	4.450	4.483	4.505	4.538	4.550	4.445	4.373	4.535	4.575	4.618	4.862	4.665	4.720	4.670	4.750	4.800	4.770	4.920	4.910	4.591
Jan-01	4.175	4.385	4.432	4.425	4.425	4.460	4.477	4.510	4.522	4.422	4.353	4.505	4.540	4.579	4.810	4.625	4.667	4.620	4.696	4.744	4.720	4.861	4.850	4.557
Feb-01	4.005	4.190	4.227	4.205	4.180	4.200	4.212	4.245	4.258	4.177	4.120	4.249	4.284	4.324	4.540	4.368	4.399	4.352	4.432	4.480	4.465	4.590	4.580	4.308
Mar-01	3.840	3.995	4.022	3.990	3.938	3.948	3.955	3.986	4.001	3.942	3.895	4.000	4.035	4.074	4.267	4.110	4.133	4.089	4.162	4.213	4.205	4.323	4.315	4.063

September	9/1/00	9/5/00	9/6/00	9/7/00	9/8/00	9/11/00	9/12/00	9/13/00	9/14/00	9/15/00	9/18/00	9/19/00	9/20/00	9/21/00	9/22/00	9/25/00	9/26/00	9/27/00	9/28/00	9/29/00	Avg
Nov-00	4.905	5.030	5.157	5.100	4.999	5.135	5.105	5.157	5.312	5.300	5.394	5.477	5.433	5.402	5.266	5.412	5.450	5.447	5.124	5.186	5.240
Dec-00	4.975	5.104	5.233	5.187	5.100	5.235	5.209	5.260	5.412	5.400	5.495	5.585	5.548	5.517	5.383	5.525	5.565	5.562	5.231	5.281	5.340
Jan-01	4.915	5.043	5.172	5.140	5.070	5.203	5.178	5.225	5.367	5.355	5.445	5.525	5.495	5.470	5.350	5.485	5.525	5.522	5.256	5.298	
Feb-01	4.640	4.763	4.884	4.865	4.815	4.938	4.913	4.955	5.088	5.075	5.152	5.228	5.210	5.203	5.100	5.225	5.260	5.257	4.971	5.026	5.028
Mar-01	4.365	4.483	4.597	4.580	4.540	4.661	4.636	4.675	4.799	4.785	4.855	4.930	4.923	4.923	4.840	4.960	4.990	4.988	4.727	4.778	4.752

October	10/2/00	10/3/00	10/4/00	10/5/00	10/6/00	10/9/00	#####	10/11/00	10/12/00	10/13/00	10/16/00	10/17/00	10/18/00	10/19/00	10/20/00	10/23/00	10/24/00	10/25/00	10/26/00	10/27/00	10/30/00	10/31/00	Avg
Nov-00	5.352	5.348	5.290	5.152	5.008	5.150	5.134	5.508	5.630	5.537	5.364	5.439	5.228	4.951	4.937	5.072	4.820	4.659	4.664	4.541			5.139
Dec-00	5.435	5.438	5.383	5.248	5.113	5.250	5.236	5.599	5.728	5.649	5.492	5.553	5.349	5.071	5.055	5.193	4.940	4.771	4.753	4.652	4.485	4.490	5.177
Jan-01	5.400	5.398	5.348	5.215	5.085	5.217	5.211	5.511	5.693	5.624	5.475	5.535	5.344	5.081	5.062	5.200	4.960	4.795	4.777	4.677	4.520	4.531	5.166
Feb-01	5.160	5.158	5.118	5.000	4.881	5.007	5.001	5.301	5.442	5.377	5.242	5.295	5.121	4.891	4.875	5.000	4.780	4.612	4.597	4.497	4.352	4.381	4.959
Mar-01	4.905	4.903	4.864	4.765	4.658	4.769	4.764	5.058	5.180	5.122	4.991	5.040	4.877	4.658	4.646	4.757	4.555	4.400	4.382	4.287	4.157	4.191	4.724

Source: Jenkins Supplemental Direct Workpaper titled "MGE Scenario-no change except for Nov and Dec 99 as warmest" -
from worksheet tab titled "Available Hedge Price"

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1	Missouri Gas Energy											
2	GR-2001-382											
3												
4	Table 1: First of Month Nominations on Duke must be made 6 business days before FOM. So, Staff reviewed decisions made on 10/24/00, 11/22/00, 12/21/00, 1/24/01, and 2/21/01.											
5												
6	Information Known As Of:		10/24/2000	11/27/2000		12/21/2000			1/24/2001	2/21/2001		
7	From Storage Analysis Report:		Oct-00	Nov-00		Dec-00			Jan-01	Feb-01		
8	Forecasted demand and storage inj & w/d entered for actual HDD through:		10/23/2000	11/26/2000		12/20/2000	Rev 12/20 to include 12/31 ⁴		1/23/2001	2/20/2001		
9	Actual HDD through this date		256	728		854	854		796	691		
10	Forecasted HDD for remainder of month		77	104		514	553		301	248		
11	Known & expected HDD for month		333	832		1,368	1,407		1,097	939		
12	Expected monthly HDD as % of normal HDD (calculated this - not in report)			126.6%		127.5%	131.1%		90.1%	99.3%		
13	EOM Storage Balances				No Revision to Nov-00 for ISS ³		Rev 12/20 to include 12/31 ⁴					
14	TSS		14,948,357	10,587,206	10,587,206	4,227,928	4,112,139		3,927,321	1,637,647		
15	FSS		1,121,968	1,121,952	1,121,952	1,041,777	1,041,777		1,041,777	1,041,777		
16	PEPLWS		1,453,926	1,009,107	1,009,107	598,035	591,696		372,676	169,435		
17	Total Storage Inventory		17,524,251	12,718,265	12,718,265	5,867,740	5,745,612		5,341,774	2,848,859		
18	% of MSQ		98.6%	71.6%	71.6%	33.0%	32.3%		30.1%	16.0%		
19	Inventory remaining to be filled ¹		243,378									
20	From Company Reliability Report:		Nov-00	Dec-00		Jan-01			Feb-01	Mar-01		
21	Forecasted Demand:											
22	Base Case - 30 Year Normal Weather		7,400,361	12,375,465		13,868,421			11,213,497	8,423,472		
23	Base Case - Rev (Uses Nov - Mar btf and htf from regression of Jul 98 - Jun 00 data with normal weather, plus growth)		7,686,797	11,857,776		13,298,119			10,480,179	8,063,218		
24	Low Case		5,587,935	10,592,504		10,077,482			8,819,953	6,845,539		
25	Low Case- Rev (Uses Nov - Mar btf and htf from regression of Jul 98 - Jun 00 data with warmest month HDD, plus growth)		5,114,047	8,778,422		9,553,228			7,500,159	6,454,007		
26	High Case		9,140,788	17,896,663		16,186,584			13,732,070	10,514,864		
27	Historical HDD data:		Nov-00	Dec-00		Jan-01			Feb-01	Mar-01		
28	warmest month HDD		398	763		841			646	529		
29	normal month HDD		657	1,073		1,218			946	691		
30	coldest month HDD		877	1,606		1,629			1,274	1,057		
31	Using Company heatload & baseload factors in Reliability Report w/ historical HDD		Nov-00	Dec-00		Jan-01			Feb-01	Mar-01		
32	Number of days in month		30	31		31			28	31		
33	estimated demand w/ warmest HDD		5,591,673	9,457,584		10,273,551			8,090,819	7,009,684		
34	estimated demand w/ normal HDD		8,301,101	12,700,529		14,217,391			11,229,153	8,704,384		
35	estimated demand w/ coldest HDD		10,602,546	18,276,302		18,516,908			14,660,398	12,533,151		
36	From Company Supply/Demand Summary:		Nov-00	Dec-00		Jan-01			Feb-01	Mar-01		
37	Normal Monthly Demand		7,425,361	12,400,465		13,893,421			11,238,497	8,448,472		
38	Daily Average Demand		247,512	400,015		448,175			401,375	272,531		
39	Demand to be met w/ storage w/d ²											
40	TSS		138,333	91,935		49,355			79,914	61,115		
41	FSS		0	0		0			0	0		
42	PEPLWS		4,272	6,339		6,615			6,994	4,120		
43	Total Storage w/d		142,605	98,274		55,970			86,908	65,235		
44	Fuel Requirements		2,715	7,909		13,036			10,426	6,810		
45	Daily Avg Demand still to be met (with flowing or ?)		107,622	309,650		405,241			324,893	214,106		
46	Less Planned Flowing Supplies		107,622	289,650		405,241			304,893	189,106		
47	Daily Avg Demand still to be met with		0	20,000		0			20,000	25,000		
48	From DR28 response:		Nov-00	Dec-00		Jan-01			Feb-01	Mar-01		
49	Planned Normal Storage Withdrawals		4,150,165	3,454,240		3,464,251			3,162,867	2,247,507		
50												
51												

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1	Missouri Gas Energy											
2	GR-2001-382											
3												
52	Table 2: Storage Inventory - Actuals		EOM Storage Inventory ⁵									
53			Sep-00	Oct-00	Nov-00	Dec-00	Jan-01	Feb-01	Mar-01			
54		Williams SA-0014 (TSS)	14,122,908	15,593,505	9,966,153	3,747,983	3,784,819	2,515,613	870,709			
55		Williams SA-0072 (FS)	975,369	1,121,952	1,121,952	1,041,777	1,041,777	41,777	0			
56		PEPL WS-012626	778,088	0	0	0	0	0	0			
57		PEPL WS-012627	165,143	1,051,108	1,004,903	575,538	368,179	169,435	39,824			
58		Total	16,041,508	17,766,565	12,093,008	5,365,298	5,194,775	2,726,825	910,533			
59												
60												
61	Given the information known when decisions were made regarding first-of-month nominations, Staff believes that the FOM nominations would have been different - November FOM nominations would have been higher to allow storage to be reserved for the normally colder months of December and January and to assure that the Company had sufficient withdrawal capabilities to cover a possible late winter cold snap. Storage balances and FOM nominations for this option is presented below:											
62												
63												
64												
65	Table 3-1: Storage withdrawals expected based on distribution of normal HDD											
66		Normal HDD	Monthly Distr.	Storage Distr.	Storage distribution is based on the percentage of normal HDD occurring in that month times the total storage inventory. For November, would use the total MSQ less 500,000 allowed by Company for injections in Nov if weather is warmer than normal. For Dec - Mar, Company would know the beginning balance at start of November, so adjust accordingly - including additional 150,000 ISS allowed in Nov.							
67	Nov-00	657	14.3%	2,474,336	check: Oct end-of-month inv = 17,766,565 total expected storage if adjust Nov by 150,000 from ISS 17,739,170							
68	Dec-00	1,073	23.4%	4,122,699								
69	Jan-01	1,218	26.6%	4,679,820								
70	Feb-01	946	20.6%	3,634,737								
71	Mar-01	691	15.1%	2,677,578								
72	Total	4,585	100.0%	17,589,170								
73												
74												
75												
76	Table 3-2: Staff's calculation of expected storage withdrawal and flowing supplies for Company planned normals											
77			Nov-00	Nov-00 Rev	Dec-00	Dec-00 Rev	Jan-01	Jan-01 Rev	Feb-01	Feb-01 Rev	Mar-01	Mar-01 Rev
78	Normal Monthly Demand		7,686,797	7,686,797	11,857,776	11,857,776	13,298,119	13,298,119	10,480,179	10,480,179	8,063,218	8,063,218
79	Daily Average Demand		256,227	256,227	382,509	382,509	428,972	428,972	374,292	374,292	260,104	260,104
80	Daily Demand to be met w/ storage w/d		82,478		132,990		150,962		129,812		86,373	
81	plus storage w/d allowed for ISS in Nov		5,000									
82	less storage for excess from prior month				(22,212)		(98,409)		45,241		3,386	
83	Subtotal of daily storage w/d		87,478	93,474	110,778	85,031	52,553	35,430	175,053	162,096	89,759	62,106
84	Daily Fuel Requirements		2,715	2,715	7,909	7,909	13,036	13,036	10,426	10,426	6,810	6,810
85	Expected Daily Flowing Supplies		171,464	165,468	279,640	305,387	389,455	406,578	209,665	222,622	177,155	204,808
86	% of planned normal met with storage (includes fuel)		33.8%	36.1%	28.4%	21.8%	11.9%	8.0%	45.5%	42.1%	33.6%	23.3%
87	% of planned normal met with flowing supplies (includes fuel)		66.2%	63.9%	71.6%	78.2%	88.1%	92.0%	54.5%	57.9%	66.4%	76.7%
88	Check if planned daily flowing covers warm weather requirements (see Table 1)		170,468		283,175		308,169		267,863		208,194	
89	Plus storage over/under from prior month		Yes		No		No		No		No	
90	Prior Staff Recommendation uses: Check if planned daily flowing covers warm weather requirements (used Company numbers for low-case from Reliability Report)		186,265		341,694		325,080		314,998		220,824	
91												
92												
93	storage would need to be adjusted prior to making nominations based on expected end-of-month inventory for previous month		This is the warm weather requirement less 150,000 for ISS in Nov		Since too much storage was pulled in Nov, this is warm weather plus excess w/d in Nov.							
94												
95												

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1	Missouri Gas Energy											
2	GR-2001-382											
3												
96	Table 3-3: Effect of revised daily flowing supplies on expected end-of-month (EOM) storage inventory											
97	Information Known As Of:		11/27/2000	12/21/2000	1/24/2001	2/21/2001						
98	From Storage Analysis Report:		Nov-00	Dec-00	Jan-01	Feb-01						
99	Forecasted demand and storage inj & w/d entered for actual HDD through:		11/26/2000	12/20/2000	1/23/2001	2/20/2001						
100	Actual HDD through this date		728	854	796	691						
101	Forecasted HDD for remainder of month		104	553	301	248						
102	Known & expected HDD for month		832	1,407	1,097	939						
	Expected monthly HDD as % of normal		126.6%	131.1%	90.1%	99.3%						
103	HDD (calculated this - not in report)											
104	Revised Expected EOM Storage Balances:											
105	EOM Storage Balances from above		12,718,265	5,745,612	5,341,774	2,848,859						
106	Plus additional inv from prior month(s)			1,735,380	2,223,227	2,264,674						
	Plus additional demand that would have been covered with flowing supplies instead of storage w/d		1,735,380	487,847	41,447	(2,303,588)						
107												
108			14,453,645	7,968,839	7,606,448	2,809,945						
109	Storage inv expected for normal weather		15,142,225	11,019,530	6,339,710	2,704,973						
110	Excess from storage for colder weather		688,580	3,050,691	(1,266,738)	(104,972)						
	So need to recover any excess w/d in next month (per day) or can w/d any additional storage		22,212	98,409	(45,241)	(3,386)						
111												
112												
113												
114	Table 3-4: Effect of revised daily flowing supplies on actual end-of-month storage inventory											
115			Nov-00	Dec-00	Jan-01	Feb-01	Mar-01	Total				
116	Actual EOM Storage Balances		12,093,008	5,365,298	5,194,775	2,726,825	910,533	16,856,032	Actual			
117	Plus additional inv from prior month(s)			1,735,380	2,223,227	2,264,674	(38,914)					
	Plus additional demand that would have been covered with flowing supplies instead of storage w/d		1,735,380	487,847	41,447	(2,303,588)	486,762					
118												
119	Subtotal		13,828,388	7,588,525	7,459,449	2,687,911	1,358,381					
120	Actual Expected Net Withdrawals		3,938,177	6,239,863	129,076	4,771,538	1,329,530	16,408,184	Expected			
121												
122	Table 3-5: Comparison of Company and Staff FOM planned flowing supplies and storage withdrawals											
123	Company Planned Demand to be met with:											Staff revision: Expected storage withdrawal and flowing supplies for Company planned normals:
124		Normal Daily Avg Demand + Fuel	Daily Flowing Supplies	Flowing Supplies as % of Daily Avg for Month	Daily Storage w/d	Storage as % of Daily Avg for Month	Daily Flowing Supplies	Flowing Supplies as % of Daily Avg for Month	Daily Storage w/d	Storage as % of Daily Avg for Month		
125	Nov-00	258,942	107,622	41.6%	142,605	55.1%	165,468	63.9%	93,474	36.1%		
126	Dec-00	390,418	289,650	74.2%	98,274	25.2%	305,387	78.2%	85,031	21.8%		
127	Jan-01	442,008	405,241	91.7%	55,970	12.7%	406,578	92.0%	35,430	8.0%		
128	Feb-01	384,718	304,893	79.3%	86,908	22.6%	222,622	57.9%	162,096	42.1%		
129	Mar-01	266,914	189,106	70.8%	65,235	24.4%	204,808	76.7%	62,106	23.3%		
130												
131												

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1	Missouri Gas Energy											
2	GR-2001-382											
3												
132												
133	¹ Company states that wants to allow 500,000 so that if November is warmer than normal, still have room to inject. Company also stated in											
134	DR62 since storage was fuller than anticipated moved 500,000 to an ISS contract to allow for November injections											
135	² Storage w/d planned for Nov-00 would include planned 4,000,000 TSS + 150,000 ISS (or 138,333/day) plus the PEPL/WS w/d (128,160											
136	planned for November compared to 150,166 noted as normal w/d in the DR28 response)											
137	³ Report for numbers in previous column shows Oct 31 balance as 15,093,505 which would not include the ISS balance of 500,000. However											
138	made adjustment at start of November to use ISS storage per Company plans. End of November balances are from Company Storage											
139	⁴ The forecasted HDD for the remainder of Dec is only through 12/30/00; so the HDD and the storage balances are adjusted to include 12/31/00											
140	- based on Company rationale. Additional demand for 39 HDD is 433,822 (taken from 12/2 which had 39 HDD).											
141	So if 12/31 demand is: 433,822											
142	These are taken from the Storage Analysis Report and are the same each day for the forecasted dates of 12/21 - 12/30											
143	{ (51,219) KN 107th & Elm											
144	{ (9,997) Served KPOC											
145	{ (25,835) Served PEPL (this looks like it includes WS and Dec plan is 6,339/day from WS)											
146	{ (230,982) WNG Flowing											
147	115,789 needed from TSS											
148	⁵ Company states that storage reports available from Williams about the 13th of the month for the prior month. So Company knew actual prior											
149	months EOM balance when nominations made for following month.											
149	⁶ Recall that November storage withdrawals allow for 5,000 per day from ISS											

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Missouri Gas Energy
GR-2001-382

Month	NYMEX	
	Closing Price	Date
November, 2000	4.541	10/28/00
December, 2000	6.016	11/28/00
January, 2001	9.978	12/27/00
February, 2001	6.293	1/29/01
March, 2001	4.998	2/26/01

Source: NYMEX closing prices taken from The Wall Street Journal

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MGE
Case No. GR-2001-387

Month of purchase	Month Hedged				
	Nov-00	Dec-00	Jan 2001	Feb-01	Mar-01
Jun-00	4.312	4.388	4.376	4.138	3.898
Jul-00	4.048	4.136	4.129	3.942	3.758
Aug-00	4.520	4.591	4.557	4.308	4.063
Sep-00	5.240	5.340	5.298	5.028	4.752
Oct-00	5.139	5.177	5.166	4.959	4.724
Average	4.652	4.726	4.705	4.475	4.239

Source: Nymex closing prices simple average by month
Date: March 22, 2002

June	6/1/00	6/2/00	6/5/00	6/6/00	6/7/00	6/8/00	6/9/00	6/12/00	6/13/00	6/14/00	6/15/00	6/16/00	6/19/00	6/20/00	6/21/00	6/22/00	6/23/00	6/26/00	6/27/00	6/28/00	6/29/00	6/30/00	Avg
Nov-00	4.150	4.092	4.383	4.286	3.983	4.140	4.155	4.215	4.168	4.250	4.404	4.455	4.155	4.186	4.413	4.543	4.446	4.525	4.600	4.415	4.423	4.466	4.312
Dec-00	4.250	4.187	4.465	4.355	4.070	4.215	4.220	4.280	4.240	4.320	4.470	4.530	4.230	4.285	4.500	4.620	4.521	4.595	4.665	4.485	4.493	4.536	4.388
Jan-01	4.260	4.192	4.465	4.350	4.070	4.205	4.210	4.268	4.232	4.309	4.454	4.513	4.213	4.275	4.486	4.600	4.503	4.575	4.640	4.465	4.471	4.516	4.376
Feb-01	4.055	3.990	4.245	4.135	3.860	3.990	3.994	4.049	4.015	4.082	4.218	4.271	3.971	4.040	4.236	4.342	4.243	4.297	4.360	4.195	4.200	4.240	4.138
Mar-01	3.845	3.785	4.020	3.920	3.652	3.773	3.776	3.830	3.798	3.855	3.976	4.021	3.730	3.810	3.980	4.078	3.983	4.019	4.080	3.925	3.930	3.965	3.898

July	7/5/00	7/6/00	7/7/00	7/10/00	7/11/00	7/12/00	7/13/00	7/14/00	7/17/00	7/18/00	7/19/00	7/20/00	7/21/00	7/24/00	7/25/00	7/26/00	7/27/00	7/28/00	7/31/00	Avg
Nov-00	4.166	4.100	4.302	4.290	4.306	4.101	4.218	4.205	4.064	4.085	3.955	3.932	3.907	3.810	3.760	3.890	3.951	3.956	3.906	4.048
Dec-00	4.236	4.185	4.390	4.385	4.400	4.195	4.305	4.295	4.150	4.165	4.043	4.015	3.987	3.892	3.843	3.975	4.050	4.061	4.020	4.136
Jan-01	4.216	4.180	4.380	4.380	4.395	4.191	4.295	4.280	4.138	4.150	4.034	4.005	3.979	3.890	3.841	3.970	4.048	4.060	4.019	4.129
Feb-01	3.95	3.945	4.145	4.150	4.175	3.981	4.090	4.090	3.963	3.975	3.868	3.842	3.819	3.735	3.696	3.810	3.888	3.905	3.869	3.942
Mar-01	3.7	3.705	3.905	3.920	3.955	3.786	3.895	3.900	3.788	3.802	3.702	3.682	3.659	3.585	3.553	3.660	3.738	3.753	3.719	3.758

August	8/1/00	8/2/00	8/3/00	8/4/00	8/7/00	8/8/00	8/9/00	8/10/00	8/11/00	8/14/00	8/15/00	8/16/00	8/17/00	8/18/00	8/21/00	8/22/00	8/23/00	8/24/00	8/25/00	8/28/00	8/29/00	8/30/00	8/31/00	Avg
Nov-00	4.080	4.297	4.342	4.360	4.390	4.437	4.455	4.488	4.495	4.371	4.299	4.474	4.491	4.530	4.800	4.590	4.652	4.602	4.683	4.736	4.697	4.850	4.840	4.520
Dec-00	4.180	4.395	4.442	4.440	4.450	4.483	4.505	4.538	4.550	4.445	4.373	4.535	4.575	4.618	4.862	4.665	4.720	4.670	4.750	4.800	4.770	4.920	4.910	4.591
Jan-01	4.175	4.385	4.432	4.425	4.425	4.460	4.477	4.510	4.522	4.422	4.353	4.505	4.540	4.579	4.810	4.625	4.667	4.620	4.696	4.744	4.720	4.861	4.850	4.557
Feb-01	4.005	4.190	4.227	4.205	4.180	4.200	4.212	4.245	4.258	4.177	4.120	4.249	4.284	4.324	4.540	4.368	4.399	4.352	4.432	4.480	4.465	4.590	4.580	4.308
Mar-01	3.840	3.995	4.022	3.990	3.938	3.948	3.955	3.986	4.001	3.942	3.895	4.000	4.035	4.074	4.267	4.110	4.133	4.089	4.162	4.213	4.205	4.323	4.315	4.063

September	9/1/00	9/5/00	9/6/00	9/7/00	9/8/00	9/11/00	9/12/00	9/13/00	9/14/00	9/15/00	9/18/00	9/19/00	9/20/00	9/21/00	9/22/00	9/25/00	9/26/00	9/27/00	9/28/00	9/29/00	Avg
Nov-00	4.905	5.030	5.157	5.100	4.999	5.135	5.105	5.157	5.312	5.300	5.394	5.477	5.433	5.402	5.266	5.412	5.450	5.447	5.124	5.186	5.240
Dec-00	4.975	5.104	5.233	5.187	5.100	5.235	5.209	5.260	5.412	5.400	5.495	5.585	5.548	5.517	5.383	5.525	5.565	5.562	5.231	5.281	5.340
Jan-01	4.915	5.043	5.172	5.140	5.070	5.203	5.178	5.225	5.367	5.355	5.445	5.525	5.495	5.470	5.350	5.485	5.525	5.522	5.222	5.256	5.298
Feb-01	4.640	4.763	4.884	4.865	4.815	4.938	4.913	4.955	5.088	5.075	5.152	5.228	5.210	5.203	5.100	5.225	5.260	5.257	4.971	5.026	5.028
Mar-01	4.365	4.483	4.597	4.580	4.540	4.661	4.636	4.675	4.799	4.785	4.855	4.930	4.923	4.923	4.840	4.960	4.990	4.988	4.727	4.778	4.752

October	10/2/00	10/3/00	10/4/00	10/5/00	10/6/00	10/9/00	10/10/00	10/11/00	10/12/00	10/13/00	10/16/00	10/17/00	10/18/00	10/19/00	10/20/00	10/23/00	10/24/00	10/25/00	10/26/00	10/27/00	10/30/00	10/31/00	Avg
Nov-00	5.352	5.348	5.290	5.152	5.008	5.150	5.134	5.508	5.630	5.537	5.364	5.439	5.228	4.951	4.937	5.072	4.820	4.659	4.664	4.541			5.139
Dec-00	5.435	5.438	5.383	5.248	5.113	5.250	5.236	5.599	5.728	5.649	5.492	5.553	5.349	5.071	5.055	5.193	4.940	4.771	4.753	4.652	4.485	4.490	5.177
Jan-01	5.400	5.398	5.348	5.215	5.085	5.217	5.211	5.511	5.693	5.624	5.475	5.535	5.344	5.081	5.062	5.200	4.960	4.795	4.777	4.677	4.520	4.531	5.166
Feb-01	5.160	5.158	5.118	5.000	4.881	5.007	5.001	5.301	5.442	5.377	5.242	5.295	5.121	4.891	4.875	5.000	4.780	4.612	4.597	4.497	4.352	4.381	4.959
Mar-01	4.905	4.903	4.864	4.765	4.658	4.769	4.764	5.058	5.180	5.122	4.991	5.040	4.877	4.658	4.646	4.757	4.555	4.400	4.382	4.287	4.157	4.191	4.724

Source: Jenkins Supplemental Direct Workpaper titled "MGE Scenario for REV base case and low case from regression" -
from worksheet tab titled "Available Hedge Price"

Summary of Jenkins' Proposed Storage Utilization - Normal Winter

Line No.	Description	Source	Nov	Dec	Jan	Feb	Mar	Total
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	Normal Monthly Demand (Jenkins Estimate)	[1]	7,686,797	11,857,776	13,298,119	10,480,179	8,063,218	51,386,089
2	"Warmest Month" Demand (Jenkins Estimate)	[2]	5,114,040	8,778,425	9,553,239	7,500,164	6,454,014	37,399,882
3	Proposed Storage Withdrawals	[3]	2,572,757	3,079,351	3,744,880	2,980,015	1,609,204	13,986,207
4	MGE's Total Storage Capacity	[4]						17,767,629
5	Unutilized Storage in Normal Winter Under Jenkins' Proposal	[5]						3,781,422
6	% of Jenkins' Proposed Unutilized Storage Capacity to Total Capacity	[6]						21.3%

NOTE: All figures above were taken from Jenkins' Supplemental Direct Workpaper entitled "MGE Scenario for REV Base Case and Low Case from Regression" that is presented as Schedule MTL-39 and which she used to develop her storage utilization disallowance proposal. The specific tabs in that spreadsheet from which the data above was sourced are noted below.

Source:

[1] Tab "FOM Plans- REV", Table 3-2, line 78, columns C, E, G, I and K.

[2] Tab "FOM Plans- REV", Table 3-2, line 91, columns C, E, G, I and K.

[3] Line 1 minus Line 2.

[4] Tab "Normals & Forecasted EOM", Total MSQ - all storage contracts (Note - no line or column numbers were provided on this tab of the Workpaper).

[5] Line 4 minus Line 3.

[6] Line 3 divided by Line 5.

Inaccuracy of Ms. Jenkins' Regression at Estimating MGE's Demand

Line No.	Description	From Schedule MTL-14			Estimated Demand Produced by Jenkins' Regression (No Growth)	% Difference between Actual Demand and Estimated Demand	% HDD is Above/ (Below) Normal	If Demand Growth is Considered, Demand Variance Would be Slightly...
		Actual HDD	Normal HDD	Actual Demand				
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)
1	Nov-97	710	657	7,923,099	8,152,126	3%	8%	
2	Dec-97	978	1073	11,478,932	10,832,857	-6%	-9%	
3	Jan-98	945	1218	11,443,336	10,507,495	-8%	-22%	WORSE
4	Feb-98	662	946	8,431,917	7,602,079	-10%	-30%	WORSE
5	Mar-98	797	691	9,774,280	9,048,296	-7%	15%	
6	Total			49,051,564	46,142,853			
7	Nov-98	503	657	5,509,211	6,111,219	11%	-23%	BETTER
8	Dec-98	940	1073	10,788,379	10,458,198	-3%	-12%	
9	Jan-99	1145	1218	13,190,277	12,479,386	-5%	-6%	
10	Feb-99	674	946	7,913,473	7,720,392	-2%	-29%	
11	Mar-99	666	691	7,885,820	7,756,707	-2%	-4%	
12	Total			45,287,160	44,525,902			
13	Nov-99	391	657	4,414,515	5,006,961	13%	-40%	SAME
14	Dec-99	888	1073	9,843,466	9,945,506	1%	-17%	
15	Jan-00	1052	1218	11,490,604	11,562,457	1%	-14%	
16	Feb-00	685	946	8,165,749	7,828,846	-4%	-28%	
17	Mar-00	537	691	6,042,011	6,484,838	7%	-22%	
18	Total			39,956,345	40,828,608			
19	Nov-00	833	657	8,899,925	9,364,839	5%	27%	
20	Dec-00	1445	1073	16,074,078	15,437,222	-4%	35%	
21	Jan-01	1113	1218	12,718,983	12,163,883	-4%	-9%	
22	Feb-01	996	946	11,009,323	10,895,136	-1%	5%	
23	Mar-01	764	691	8,348,578	8,722,934	4%	11%	
24	Total			57,050,887	56,584,014			
25	Nov-01	398	657	4,317,691	5,075,977	18%	-39%	WORSE
26	Dec-01	844	1073	9,996,257	9,511,690	-5%	-21%	
27	Jan-02	974	1218	10,624,016	10,793,419	2%	-20%	
28	Feb-02	756	946	8,404,975	8,528,867	1%	-20%	
29	Mar-02	759	691	8,465,251	8,673,637	2%	10%	
30	Total			41,808,190	42,583,590			

In 5 of the past 25 months, Ms. Jenkins' demand estimate would vary from the actual demand by 10% or more

Estimation of MGE's Monthly Winter Demand Using Jenkins' Supplemental Direct Testimony Regression

(All demand figures below produced using the demand estimation model reflected in
Jenkins' Supplemental Direct Workpaper titled "MGE Regression Using MTL-14 and DR 146")

Line No.	Description	Actual HDD (b)	No. of Days in Month (c)	Estimated Demand (in MMBtu)		
				Baseload (d)	Heatload (e)	Total (No Growth) (f)
	(a)					
1	Baseload Factor =	38,397.13				
2	Heatload Factor =	9,859.45				
3	Nov-97	710	30	1,151,914	7,000,212	8,152,126
4	Dec-97	978	31	1,190,311	9,642,546	10,832,857
5	Jan-98	945	31	1,190,311	9,317,184	10,507,495
6	Feb-98	662	28	1,075,120	6,526,959	7,602,079
7	Mar-98	797	31	1,190,311	7,857,985	9,048,296
8	Total			5,797,967	40,344,886	46,142,853
9	Nov-98	503	30	1,151,914	4,959,305	6,111,219
10	Dec-98	940	31	1,190,311	9,267,887	10,458,198
11	Jan-99	1145	31	1,190,311	11,289,075	12,479,386
12	Feb-99	674	28	1,075,120	6,645,272	7,720,392
13	Mar-99	666	31	1,190,311	6,566,396	7,756,707
14	Total			5,797,967	38,727,935	44,525,902
15	Nov-99	391	30	1,151,914	3,855,047	5,006,961
16	Dec-99	888	31	1,190,311	8,755,195	9,945,506
17	Jan-00	1052	31	1,190,311	10,372,146	11,562,457
18	Feb-00	685	28	1,075,120	6,753,726	7,828,846
19	Mar-00	537	31	1,190,311	5,294,527	6,484,838
20	Total			5,797,967	35,030,641	40,828,608
21	Nov-00	833	30	1,151,914	8,212,925	9,364,839
22	Dec-00	1445	31	1,190,311	14,246,911	15,437,222
23	Jan-01	1113	31	1,190,311	10,973,572	12,163,883
24	Feb-01	996	28	1,075,120	9,820,016	10,895,136
25	Mar-01	764	31	1,190,311	7,532,623	8,722,934
26	Total			5,797,967	50,786,047	56,584,014
27	Nov-01	398	30	1,151,914	3,924,063	5,075,977
28	Dec-01	844	31	1,190,311	8,321,379	9,511,690
29	Jan-02	974	31	1,190,311	9,603,108	10,793,419
30	Feb-02	756	28	1,075,120	7,453,747	8,528,867
31	Mar-02	759	31	1,190,311	7,483,326	8,673,637
32	Total			5,797,967	36,785,623	42,583,590
Source:		[1]	[2]	[3]	[4]	[5]

Sources:

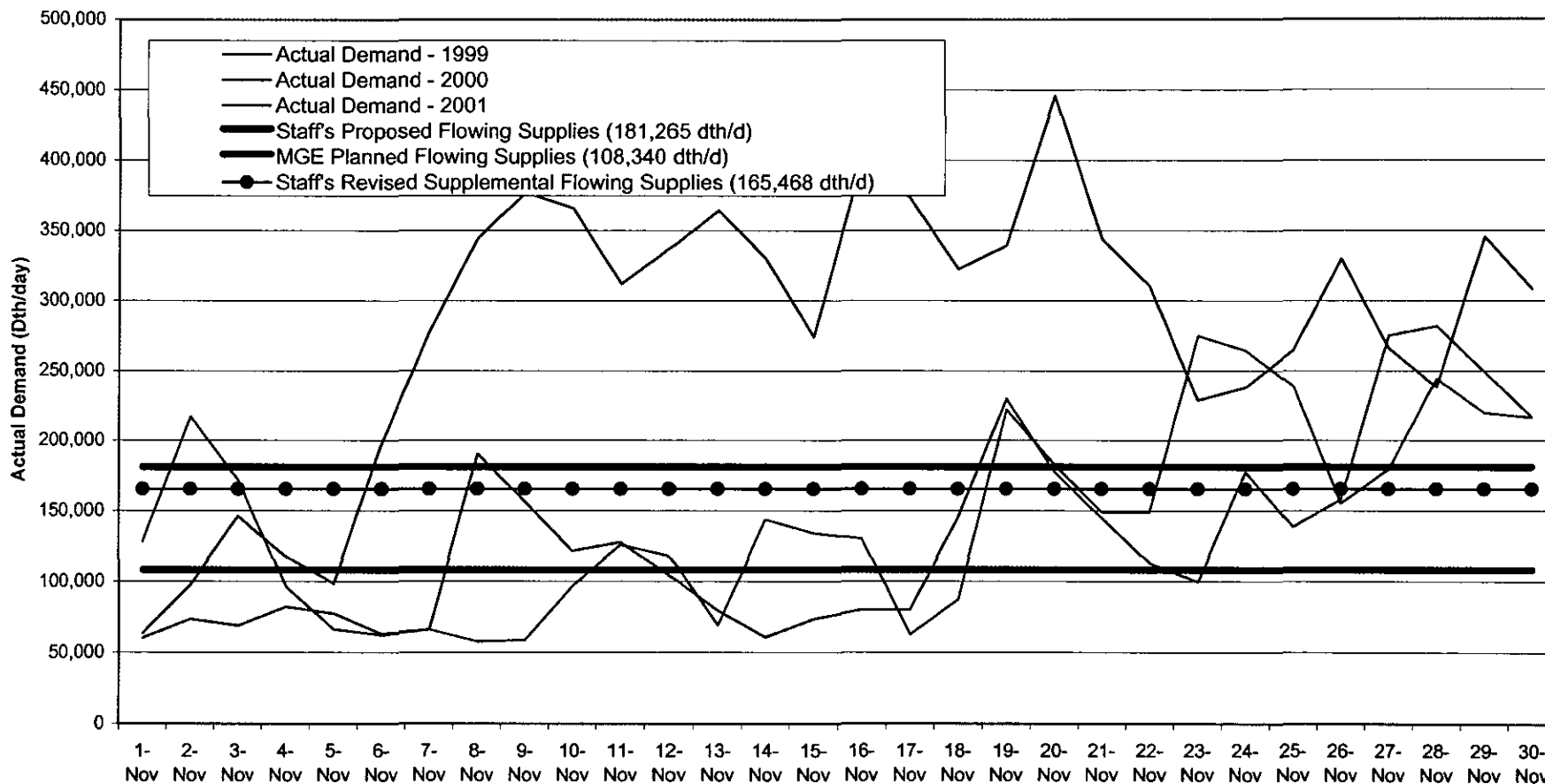
- [1] Baseload and heatload factors from Jenkins' Supplemental Direct workpaper entitled "MGE Regression Using MTL-14 and DR 146".
- [2] Actual HDD from Schedule MTL-14.
- [3] Baseload demand calculated as Baseload Factor times No. of Days.
- [4] Heatload demand calculated as Heatload Factor times Actual HDD.
- [5] Column (d) plus column (e).

HC

Schedule MTL-42
Is Highly Confidential

HC

Comparison of MGE's Planned Flowing Supplies versus Staff's "Original" and "Revised Supplemental" Proposals Based on Actual Daily Demand for November 1999, 2000 and 2001



	1999	2000	2001	Total
No. of Days Demand < 108,340	10	3	14	27
No. of Days Demand < 181,265	21	5	24	50
No. of Days Demand < 165,468	19	5	22	46