MEMORANDUM

TO: Missouri Public Service Commission Official Case File, Case No. GR-2003-0330, Missouri Gas Energy, a Division of Southern Union Company

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/s/ Dave Sommerer 12/28/04	/s/ Thomas R. Schwarz 12/28/04
Project Coordinator / Date	General Counsel's Office / Date

SUBJECT: Staff's Recommendation in Missouri Gas Energy's 2002-2003 Actual Cost Adjustment Filing

DATE: December 28, 2004

The Staff has reviewed the Missouri Gas Energy (MGE or Company) 2002-2003 Actual Cost Adjustment (ACA) filing. The filing was made on October 17, 2003, and is docketed as Case No. GR-2003-0330. The filing contains the Company's calculations of the ACA, Refund, Transition Costs, and Take-or-Pay account balances.

MGE serves approximately 508,000 customers in the Kansas City, Joplin and St. Joseph area. MGE transports its gas supply over Panhandle Eastern Pipe Line (PEPL), Williams Gas Pipeline (Williams) now called Southern Star Central Gas Pipeline, Mid-Kansas Partnership/Riverside Pipeline Company (MKP/RPC) now called Kansas Pipeline Company (KPC) and Kinder Morgan Interstate Gas Transmission (KM).

The Staff's review consisted of an analysis of the billed revenues and actual gas costs, for the period of July 1, 2002 to June 30, 2003. A comparison of billed revenue recovery with actual gas costs will yield either an over-recovery or under-recovery of the ACA, Refund, Take-or-Pay (TOP) and Transition Cost balances.

Staff conducted a reliability analysis for MGE including a review of estimated peak day requirements and the capacity levels to meet those requirements, peak day reserve margin and the rationale for this reserve margin, and a review of normal and cold weather requirements. The Staff also reviewed MGE's gas purchasing practices to determine the prudence of the Company's purchasing and operating decisions.

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MKP/RPC PIPELINE ADJUSTMENT

MGE incurred natural gas costs, with respect to its transportation contract with KPC, that are substantially greater than comparable pipelines. Based upon this, the Staff has proposed the following adjustments to reduce MGE's gas costs in the prior six ACA cases:

Case Number	ACA Period	Adjustment
GR-96-450	1996-1997	$3,490,082.81
GR-98-167	1997-1998	$4,330,731.88
GR-99-304	1998-1999	$5,914,199.59
GR-2000-425	1999-2000	$5,886,058.13
GR-2001-382	2000-2001	$5,341,127.63
GR-2002-0348	2001-2002	$6,099,369.34

Likewise, the Staff proposes to reduce MGE's gas costs by $3,570,935.52 for this ACA period. The Staff believes this adjustment is necessary for the same reasons that the Commission found that an adjustment was appropriate in Case No. GR-93-140, that the initial 1991 contract resulted in imprudent excessive transportation charges from the KPC contract, when compared to the costs to transport gas on the Williams system. The subsequent modifications to the contracts mitigated, but did not completely eliminate, effects of the imprudence of the KPC contract cited by the Commission in Case No. GR-93-140. These excessive transportation charges were continued in the 1995 contracts, with some mitigation that Staff fully credits in its proposed adjustments for the relevant periods. During 1998, the existing sales service with KPC was replaced with a "transportation only" service rather than the historical "bundled" (supply and transportation) service acquired from KPC. On March 12, 2002, the Commission issued a Report and Order in Case No. GR-96-450. Although the Commission did not rule in favor of the Staff's prudence disallowance in Case No. GR-96-450, it did not specifically rule on the question of whether or not a Stipulation and Agreement filed in 1996 barred future prudence reviews. The Report and Order was subsequently appealed by KPC. The Court of Appeals entered an order dismissing the appeal on October 19, 2004, and an application for transfer to the Missouri Supreme Court was filed on December 8, 2004.

Also, the Federal Energy Regulatory Commission (FERC) has required significant refunds related to KPC's rates that were charged during several of the ACA periods discussed above. Once the FERC has approved the refund plan, and the refunds are flowed to customers, the disallowances summarized in the table above will need to be reduced.

On September 10, 2002, the Commission consolidated the ACA cases for the periods covering July 1997 through June of 2001. The Commission noted that "a second portion of the procedural schedule leading to a hearing on the MKP/RPC contract issue may need to be established after completion of the hearing on the first set of issues. The Commission will issue a single Report and Order after completion of both portions of the hearing." Likewise, the Commission recently determined that the issues in the July 2001 through June 2002 ACA case should also be

bifurcated. Therefore there is no procedural schedule at this time, to address the consolidated MKP/RPC contract issue.

RELIABILITY ANALYSIS

The Company submitted a 2002-2003 Reliability Report that shows peak day estimates for the twelve years of 2001-2002 through 2012-2013. The Company also submitted a March 2004 Draft Demand/Capacity Analysis (March 2004 Analysis) and subsequent data and information. Although the peak day estimates in the March 2004 Analysis are not for this 2002-2003 ACA period, some of the daily data provided should have been available to the Company for the 2002-2003 ACA period. Analyses and conclusions can be drawn from this information.

Staff has several concerns regarding the Company assumptions and methodology for calculating estimated requirements for a peak cold day and for estimated requirements for normal weather, cold weather, and warm weather as documented in MGE's 2002-2003 Reliability Report. However, MGE has presented information to Staff that indicates MGE's assumptions and methodology will be much different on a going forward basis. Therefore, Staff is not providing detailed comments regarding concerns with MGE's assumptions and methodology in its 2002-2003 Reliability Report. However, Staff will comment on issues related to peak cold day selection and excess reserve margin.

1. <u>MGE Peak Cold Day Selection</u>

   MGE considers information regarding appropriate values for historic peak cold day values, expressed in heating degree days (HDD). HDD is a measure of how cold a location is relative to a base temperature of 65 degrees. The HDD for a single day is the difference between 65 degrees and the days average temperature. For example, if the average daily temperature were 30 degrees, this would represent 35 HDD.

   MGE's 2002-2003 Reliability Report indicates that the historic peak cold day for the Kansas City market areas is ** __ ** HDD on December 21, 1989. This Reliability Report includes Kansas City, Joplin, and St. Joseph in the Kansas City market area.

   The Company's most recent peak day analysis, the March 2004 Analysis, uses a peak cold day of ** __ ** HDD for Kansas City and St. Joseph. However, the Company response to Data Request (DR) No. 96 (in Case No. GR-2002-348) states that the Kansas City peak day is ** _____ ** HDD as previously asserted by MGE. MGE finds the peak from a review of Accuweather data. Staff reviewed this data and found a peak of ** ___ ** HDD by reviewing HDD high and lows from 9 a.m. on December 22, 1989, to 9 a.m. on December 23, 1989. The Company's summary of National Oceanic and Atmospheric Administration (NOAA) National Climatic Data Center weather data shows the peak of ** ___ ** HDD occurred December 22, 1989. Staff review of NOAA data shows the peak occurred December 22, 1989, and is 80.5 HDD. The March 2004 Analysis also considers a confidence interval review for HDD; a 99% confidence interval

calculation reveals a projected peak day of ** ___ ** HDD, and a 95% confidence interval calculation reveals a projected peak day of ** ___ ** HDD.

Staff recommends using a peak of 80.5 HDD as the highest observed from review of NOAA weather data or using ** ___ ** as the highest observed HDD from review of Accuweather data.

The Company's most recent peak day analysis, the March 2004 Analysis, uses a peak cold day of ** ___ ** HDD for Joplin. However this is based on MGE's consideration of a 99% confidence interval of Springfield, Missouri HDD data. Staff does not agree with calculating a higher HDD using a 99% probability than has actually occurred from a review of historical data. A 95% confidence interval would result in an estimated peak day of ** ___ ** HDD. MGE's data review shows the actual peak cold day occurred December 22, 1989, and was ** ___ ** HDD. Staff's review of NOAA data shows the peak occurred December 22, 1989, and was 72.1 HDD. Staff recommends using a peak of 72.1 as the highest observed HDD from a review of NOAA data.

2. Continued Concern with Excess Reserve Margin

Staff has documented concerns with the Company's peak day planning/reliability analysis in the previous three cases, the 2001-2002 ACA, Case No. GR-2002-348, the 2000-2001 ACA, Case No. GR-2001-382, and the 1999-2000 ACA, Case No. GR-2000-425. The Company's 2002-2003 estimate of a peak day in its 2002-2003 Reliability Report is calculated using a heat load factor from a review of four cold days for the entire system, one from each of the winters of 1996-1997, 1997-1998, 1998-1999, and 2000-2001. From these four data points the Company uses both the median heat load factor and the maximum heat load factor to calculate a range of usage for a peak cold day. Although a review of four data points is more than the one data point used by the Company in past ACA cases to estimate peak day usage, it is not reasonable to assume that the Company average of four data points is sufficient to estimate the peak day average heat load factor, and it is not reasonable to assume that one data point represents the high range of the peak day heat load factor. Review of a single data point, one cold day, or four data points, four cold days, is not sufficient to establish the peak day estimate. Accurate determination of peak day requirements is essential to adequate risk analysis and management so that customers' needs are reasonably met.

Additionally, no separate analysis is done for the Kansas City service area, Joplin service area, and St. Joseph service area. First, it is not appropriate to lump Kansas City, Joplin, and St. Joseph together in a peak day estimate because sufficient but not excess capacity must be available for each area for even cold days. Customers do not benefit by having the overall capacity for a monthly average at an acceptable level, or the daily overall capacity at an acceptable level, but then find that there is excess capacity in one area and a shortfall in another area to handle historic peak cold day requirements. Staff has verified with MGE that excess capacity in the areas of Kansas City and St. Joseph cannot be relied on to offset shortfalls of capacity in Joplin.

MGE revised and extended transportation contracts beginning with the 2001-2002 ACA and continuing through 2005-2006. The decision to contract for this level of capacity results in an excess reserve margin and increases costs to customers beginning with the 2001-2002 ACA and continuing through the 2005-2006 ACA. No evaluation or analysis indicates that the transportation contract volumes could not have been reduced. MGE has not adequately calculated its peak day requirements and has not provided justification for its excess reserve margin.

Excess capacity in the 2002-2003 ACA case, Case No. GR-2003-0330, is tied to the excess capacity issue in the 2001-2002 ACA case, Case No. GR-2002-348. In Case No. GR-2002-348 Staff originally recommended an adjustment to reduce MGE's gas costs by $1,373,016 to reflect an excess capacity of ** _____ ** MMBtu/Day. Staff's original disallowance was based on an analysis of MGE monthly data; however, Staff filed a third status report for Case No. GR-2002-348 on December 20, 2004, noting that more recent data provided by MGE contains daily data and the Staff analysis of the daily MGE data for each service area results in a revised calculation of the excess gas costs for peak day reserve for the 2001-2002 ACA. Excess capacity for the Kansas City and St. Joseph service areas totals ** _____ ** Dth/day and this excess capacity cost MGE's customers $2,041,931 for the 2001-2002 ACA, which is approximately $4.02 per customer. The Staff analysis of the daily MGE data for Joplin reveals a shortfall of capacity beginning with the 2004-2005 winter.

For this 2002-2003 ACA case, the revised disallowed volumes would be the same as shown in the revised Staff analysis in the 2001-2002 ACA case, Case No. GR-2002-348. This is because Staff's disallowance for the 2001-2002 ACA considered that the Company reviews capacity over longer blocks of time to allow for contracting of capacity in blocks. Thus, more reserve is acceptable in the 2001-2002 ACA (the ACA first impacted by the contract decision) to allow for a sufficient reserve in the 2005-2006 ACA. Staff considered five-year planning for contracting of capacity as reasonable since the Company has contracts that expire in the fall of 2005 and the fall of 2006. With the assumption that the Company reviews capacity for the next five years when contracts are renewed, a review of peak day requirements in 2005-2006 is appropriate when considering any disallowance for 2001-2002 and 2002-2003. Thus, the volume disallowed for the 2002-2003 ACA would be the same as the volume disallowed for the 2001-2002 ACA, which is ** _____ ** Dth/day for the Kansas City portion of MGE's service area and ** _____ ** Dth/Day for the St. Joseph portion of MGE's service area, for a total disallowance of ** _____ ** Dth/Day. No disallowance is proposed for the Joplin portion of MGE's service areas because the analysis shows there is a shortfall of capacity beginning in the 2004-2005 ACA for the Joplin area. The cost of the disallowance is different from the revised 2001-2002 ACA analysis because the reservation costs were slightly different for the 2002-2003 ACA. The disallowance is $2,015,661 for this excess capacity for the 2002-2003 ACA period, which is

approximately $3.97 per customer. A breakdown of this disallowance is shown in the following tables:

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PURCHASING PRACTICES - GENERAL

The Staff review of MGE's gas purchasing practices results in comments and concerns regarding: planned use of natural gas from storage; MGE decisions and documentation regarding natural gas purchasing and storage utilization; MGE decisions impacting firm customers related to volumes needed by transportation customers; and, supply requirement plans for normal, warm and cold weather.

1. MGE Gas Supply Plans – Planned Storage

Staff continues to have concerns regarding the Company's planned normal storage withdrawals. MGE's plan for normal weather is to have the largest planned withdrawal in November, the heating season month with the second fewest number of heating degree days (and very near March, the month with the fewest HDD). Similar concerns were documented in the 2001-2002 case, Case No. GR-2002-348 and the 2000-2001 ACA case, Case No. GR-2001-382.

A review of recent Reliability Reports illustrates that the planned withdrawal for November, beginning with the 2000-2001 Reliability Report was higher than that shown for November in the previous three Reliability Reports (1998-1999, 1997-1998, and 1996-1997). Staff would expect the plan for storage withdrawals to follow a similar distribution to that of normal heating degree days.

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The Company's previous rationale for withdrawing a substantial quantity of storage gas during the month of November is to ensure that MGE can contract for a high level of flowing gas volumes for the remaining winter months. Staff does not follow the Company's logic that it must withdraw large amounts of storage gas in November so that the Company can have more flowing supply in the later winter months. Staff would expect the plan for storage withdrawals to follow a similar distribution to that of normal heating degree days. It seems more reasonable that the Company would want to conserve storage for the later winter months, months with the real possibility of having extremely

cold temperatures, and so that it can meet the Southern Star requirement of having one-half to two-thirds supply from storage for cold days.

2. MGE Documentation for Decisions Related to Natural Gas Purchasing and Storage Utilization.

a. MGE maintains insufficient documentation regarding storage inventory to support its purchasing decisions. The Company states that its decisions for flowing supply in March 2003 are based on the low storage inventory, but documentation about the storage levels is not current when these decisions are made. The Company has the capability of updating its Storage Analysis reports several times a day, but has not done this when key decisions are made. Additionally the Company has the capability of obtaining daily data from Southern Star Central regarding its largest storage contract. Some examples of these storage documentation concerns are as follows:

(1) ** _____

(2) _____

(3) _____ **

(4) Corrections to TSS storage for end-user imbalances are made after the end of the month. The Company states that it could not monitor intra-month nominations until November 2003 (DR No. 132, 133). However, the Company has the capability of monitoring daily usage of end-use

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transportation customers. If the Company knows the total daily city gate volumes, it knows the daily volumes that it nominates, and knows the daily end-use transportation customer volumes, it should be able to calculate the storage injections and withdrawals on a daily basis. (City gate volume – End user usage – MGE nominations = Storage injection or withdrawal for firm customers).

b. MGE maintains insufficient documentation regarding storage inventory during the Southern Star Central March 7 through March 23, 2003, Operational Flow Order (OFO). The OFO notified storage customers with inventory levels below 10% of their maximum storage quantity not to withdraw volumes in excess of their remaining storage inventory. As of February 28, 2003, MGE had only ** ____ ** in storage, when considering the combined storage levels for TSS and FSS storage. The March 7, 2003, MGE Storage Analysis report shows that MGE was only expected to have ** ____ ** in storage, when considering the combined storage levels for TSS and FSS. Based on this information, it would have been prudent for MGE to monitor its storage balance frequently, and at least daily when supply decisions are being made. But as noted in the above examples, daily reports were not maintained.

c. The Company's plans for meeting natural gas requirements from flowing supplies and storage for situations involving other than normal weather each month of the winter are not documented. To state it another way, the Company has not provided any plans for meeting demand if the weather is extremely warm or extremely cold. Staff recommends that the Company more fully document its plans for flowing supplies (base load, term, swing, and spot) and planned storage injections and storage withdrawals for the extremes of warm or cold weather months. This concern and recommendation was also noted in the 2001-2002 ACA review, Case No. GR-2002-348. The Company's documentation should encompass the 2003-2004 ACA period.

(1) Staff recommends that the Company provide more detail regarding minimum storage inventory that must be maintained in the early winter months so that adequate storage is available for the later winter months.

(2) Storage is the major component of the Company's stated plans to provide some level of protection for its customers against price volatility in each winter month. Therefore, if the Company plans to reduce storage inventory levels beyond the planned level when the weather is cold, the Company must have a contingency price protection plan for each winter month.

Staff recommends that MGE maintain copies of all reports/analyses that it considers to make its purchasing decisions and that these reports/analyses be maintained until the

completion of Staff's ACA audit, the closing of the ACA case, and beyond if other requirements dictate. Additionally, in order to document any discrepancies between the PEPL or SSC storage inventory reports and the MGE inventory reports maintained by MGE, MGE should maintain both the MGE reports and the pipeline telemetry data or other pipeline reports.

3. Increasing Flowing Supplies for Regulated Customers To Make Up for Volumes Needed by Transportation Customers

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4. Warm Winter Requirements Estimates and Supply Plans for Normal, Warm, and Cold Weather

MGE's revised assumptions and methodology shown in the March 2004 Analysis reveals that it only estimates requirements for normal winter and cold winter (design winter). MGE has commented that estimates of usage for warm weather are not provided. Since planning for extremes also includes the extreme of warm weather, the MGE decision to not consider planning for warm weather requirements is of concern to Staff. In addition to estimates, MGE should detail how supply decisions change when the month is warm or cold. How will MGE manage its flowing supply and storage resources when the weather is warm and requirements are considerably less than normal weather requirements? How will MGE manage its flowing supply and storage resources when the weather is extremely cold and requirements are considerably more than normal weather requirements? How will natural gas supply plans for subsequent months be affected and modified when storage is above or below planned levels? How will MGE assure that adequate supplies of natural gas from storage are available in the later winter months? What production area capacity is necessary for peak requirements? All these questions should be addressed in MGE's gas supply planning process and documented.

HEDGING

In its review of MGE's purchasing practices, the Staff reviewed the Company's hedging transactions. However, the Staff did not find any evidence that the Company maintained a current hedging plan or risk management plan.

Although MGE planned to employ storage for the winter heating season November 2002 through March 2003 and fixed forward price for December 2002 through February 2003, an important exception to the overall hedging achievements was a serious shortfall of any actual protection in March 2003. Even though the Company plans to use natural gas from storage in March, in fact, no natural gas was withdrawn from storage and the month of March 2003 was left completely unhedged, subjecting the company to whatever market price called for at the time. It turned out that the natural gas prices shot up significantly during late February 2003 and as a result, the Company was totally exposed to the significant natural gas price spikes experienced for March 2003.

Although the LDC may achieve significant overall winter hedging coverage, it may at the same time leave individual winter months totally exposed to price escalation. This is precisely what happened to MGE when March 2003 was hedged 0%. Overall, the winter hedge could yield a significant coverage, and still not address the unprotected winter months. If pricing mechanisms worked in such a way as to be set one time for the entire winter, then a total seasonal approach to hedging might protect the monthly and daily exposures to price increases. However, this is not the price risk that most LDCs face in terms of hedging. LDCs generally buy and sell gas in the monthly and daily markets. The relevant price risk the Company must hedge is the risk in the monthly and daily gas markets. That is, the Company is exposed to the daily and the monthly market price volatility.

Based upon information the Staff has reviewed, the Company made an assessment of which direction prices were going to move in the market. However, the outcome of an LDC's market view with selective hedging practices should not result in winter months that are left unprotected against price fly-ups.

Given the cold weather impact of late February 2003 and subsequently the company's failure to hedge for March 2003, Staff recommends that the company analyze its hedging risk for each winter month under normal conditions and cold weather conditions, including cold weather that may occur late in the winter season. This analysis should include a review of the volumes hedged and the associated cost. Finally, each month where price exposure exists should be analyzed to evaluate the costs and risks of not covering, or minimally covering, the unhedged price volatility for that particular month. The Staff further recommends that the Company document its hedging decisions and this documentation should be maintained and be made available to the Staff during each ACA review. This documentation should include an overall hedging plan that addresses hedging goals, objectives, and strategies for each month of each

ACA review. The plan should be documented and completed well in advance of each approaching winter season.

SUMMARY

The Staff has addressed the following concerns regarding Case No. GR-2003-0330 for Missouri Gas Energy:

1. The Staff (pending a final Commission Order in Case Nos. GR-98-167, GR-99-304, GR-2000-425, GR-2001-382 and GR-2002-348) proposes for this ACA case, Case No. GR-2003-330, an adjustment to reduce MGE's gas costs by $3,570,935.52. This adjustment is reasonable and necessary for the same reasons as the Commission found in Case No. GR-93-140, the imprudence of MGE entering into the initial 1991 KPC contract resulted in excessive transportation charges when compared to the Williams alternative. Staff expressed similar concerns in its direct, rebuttal and surrebuttal testimony filed in Case No. GR-96-450 and in its recommendations in Case Nos. GR-98-167, GR-99-304, GR-2000-425 and GR-2001-382. In June of 1998, the contract terms changed to provide "transportation" only rather than the bundled supply and transportation service litigated in the 1996-1997 ACA case. The Staff believes the operation of the contract in subsequent ACA periods after June 1998 only serves to strengthen Staff's argument that the rates paid are excessive.

2. To adequately review MGE's hedging decisions, Staff recommends that MGE keep and submit additional information to Staff as documented in the Hedging section of this document.

3. Staff has expressed concerns in the Reliability Analysis and Purchasing Practices - General sections of this document regarding peak cold day selection, gas supply plans for use of natural gas from storage, documentation for Company decisions regarding gas purchasing and utilization of natural gas from storage, effects on flowing supply and costs for regulated sales customers by volumes needed by transportation customers, documentation of Company requirements for warm weather, and documentation of natural gas supply plans for normal, cold, and warm weather. Staff recommends that MGE address these concerns.

4. Staff recommends disallowance of $2,015,661 to reflect the excess gas costs for peak day reserve.

RECOMMENDATIONS

1. The Staff recommends that this ACA case remain open pending an Order from the Commission in Case Nos. GR-98-167, GR-99-304, GR-2000-425, GR-2001-382 and GR-2002-0348.

2. The Staff recommends the Company establish the account balances shown in the table below in it next ACA filing to reflect the (over)/under recovery of ACA, Refund, Transition Costs and Take-or-Pay balances to be (refunded)/collected from the ratepayers as of June 30, 2003.

Account	Balance per MGE Filing	Staff Adjustments Current ACA Period	Staff Adjustments Prior ACA Periods	Ending Balances
ACA	$ 29,006,965	$ (5,586,597)	$ (33,103,500)	$ (9,683,132)
Residential, Small General Service & Large General Service Refund	$ 175,679	$0	$ 0	$ 175,679
Large Volume Refund	$ (615,595)	$0	$0	$ (615,595)
Transition Cost	$0	$0	$0	$0
Take-or-Pay	$0	$0	$0	$0

3. To assure sufficient capacity, but not excess capacity, is available to meet firm customer peak day transportation and supply requirements for a peak cold day and for varying weather conditions, Staff recommends that the Commission require MGE to submit information by March 23, 2005, to address Staff's comments and concerns listed in the Reliability Analysis and Purchasing Practices - General sections of this document.

4. The Staff recommends that the Company analyze its hedging risk for each winter month under normal conditions and cold weather conditions, including cold weather that may occur late in the winter season. This analysis should include a review of the volumes hedged and the associated cost. Finally, each month where price exposure exists should be analyzed to evaluate the costs and risks of not covering, or minimally covering, the unhedged price volatility for that particular month. The Staff further recommends that the Company document its hedging decisions and preserve it for the Staff to review during each ACA review. MGE should develop an overall hedging plan that addresses hedging goals, objectives, and strategies for each month of each ACA review. MGE should prepare and complete the plan well in advance of each approaching winter season.

5. The Staff recommends that the Commission order the Company to respond to recommendations herein within 30 days.