

STATE OF MICHIGAN
DEPARTMENT OF ATTORNEY GENERAL



MIKE COX
ATTORNEY GENERAL

P.O. Box 30212
LANSING, MICHIGAN 48909

May 25, 2006

Ms. Mary Jo Kunkle
Executive Secretary
Michigan Public Service Commission
6545 Mercantile Way
Lansing, MI 48911

Dear Ms. Kunkle:

Re: MPSC Case No. U-14715

I am attaching for filing the Direct Testimony and Exhibits of Ralph E. Miller on Behalf of Attorney General Michael A. Cox. This filing is being submitted electronically pursuant to the instructions in the Commission's notice of hearing. I am also attaching a proof of service.

Sincerely,
DonaldEErickson
Digitally signed by DonaldEErickson
DN: cn=DonaldEErickson, c=US
Date: 2006.05.25 15:31:38 -04'00'
Donald E. Erickson
Assistant Attorney General

c All Parties

PROOF OF SERVICE - U-14715

The undersigned certifies that a copy of the Direct Testimony and Exhibits of Ralph E. Miller on Behalf of Attorney General Michael A. Cox was served upon the parties listed below by mailing the same to them at their respective addresses with first class postage fully prepaid thereon on the 25th day of May 2006.

Wendy J. Cadwell

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Wendy J. Cadwell

Administrative Law Judge:

Mark E. Cummins (P36781)
Michigan Public Service Commission
6545 Mercantile Way, Suite 15
PO Box 30221
Lansing, MI 48909-8195

Michigan Gas Utilities Corp.

Sherri Wellman (P38989)
Ronald Bloomberg (P30011)
Miller, Canfield, Paddock & Stone
One Michigan Avenue, Suite 900
Lansing, MI 48933

MPSC Staff:

Angie A. Fadly (P64831)
Assistant Attorney General
Public Service Division
6545 Mercantile Way, Suite 15
Lansing, MI 48911

Residential Ratepayer Consortium:

David L Shaltz (p29330)
Shaltz & Royal, P.C.
2379 Woodlake Dr.
Okemos, MI 48864

STATE OF MICHIGAN
BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

In the matter of application of
MICHIGAN GAS UTILITIES CORPORATION
for authority to implement a gas cost recovery plan
and factors for the 12-month period
ending March 31, 2007

MPSC Case No. U-14715

Direct Testimony

And Exhibits

of Ralph E. Miller

On behalf of

Attorney General Michael A. Cox

May 25, 2006

1

Qualifications

2 **Q. PLEASE STATE YOUR NAME, OCCUPATION, AND ADDRESS.**

3 A. My name is Ralph E. Miller. I am an independent consulting economist. My office is at
4 5502 Western Avenue, Chevy Chase, Maryland 20815.

5 **Q. PLEASE SUMMARIZE YOUR PROFESSIONAL QUALIFICATIONS.**

6 A. I am an economist specializing in the fields of utility regulation, industrial organization,
7 and public policy towards business. I have more than thirty-five years of experience in
8 public utility and related energy work, both as a consultant and in government. I am the
9 author of several published reports and papers on public utility economics and energy
10 matters, and I have testified in more than 30 different jurisdictions in a total of more than
11 300 public utility and other proceedings. I also have several additional years of
12 experience in government and as a university teacher in antitrust, energy demand
13 forecasting and supply analysis, and other areas of economics and energy.

14 Over the years, I have addressed almost all aspects of gas and electric utility regulation,
15 including rate of return, accounting and revenue requirements, rate design and cost of
16 service, electric fuel and purchased gas cost recovery, industry structure and the role of
17 competition, incentive ratemaking and other types of innovative rate designs, gas and
18 electric supply planning and power plant licensing, productivity and efficiency, and the
19 determination of marginal, incremental, and avoidable costs.

20 **Q. WHAT IS YOUR EMPLOYMENT EXPERIENCE?**

1 A. I have been an independent consultant for twenty years. I also have ten years of
2 experience as president or vice president of two different consulting firms specializing in
3 public utility and energy matters. Before that, I spent three years in the federal
4 government, where I was employed in positions at the Federal Power Commission (now
5 the Federal Energy Regulatory Commission, or FERC), the Antitrust Division of the
6 U.S. Department of Justice, and the Federal Energy Administration (now part of the U.S.
7 Department of Energy, or DOE). I was on the faculty of the University of California for
8 three years, where I taught economics courses at both the graduate and undergraduate
9 levels.

10 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND.**

11 A. I did my undergraduate work at Harvard College, where I received the A. B. degree
12 *summa cum laude* in mathematics in 1961, and I was elected to Phi Beta Kappa. I then
13 went on to graduate work in economics at Harvard, where I received a Master's degree in
14 1963. I continued my graduate studies there until 1966, and I completed all of the course
15 requirements for the Ph.D. degree, but not a doctoral dissertation.

16 **Q. WHAT IS YOUR EXPERIENCE IN THE SPECIFIC AREA OF GAS SUPPLY**
17 **PLANNING AND GAS COST RECOVERY?**

18 A. I have more than 25 years of experience in this area. I have reviewed the gas supply
19 planning and/or gas cost recovery arrangements of more than 15 gas distribution
20 companies (GDCs) in numerous regulatory proceedings in seven states, and I have
21 extensive experience in gas pipeline cases at the FERC.

1 Beginning in 1981, I analyzed the way Southern Union Gas Company acquired gas
2 supplies for its New Mexico distribution system, and I testified on aspects of this subject
3 in U.S. District Court in 1982.

4 At the FERC, I reviewed requests by three interstate pipelines for recovery of take-or-
5 pay buyout and contract reformation costs under Order No. 500. I did this work on
6 behalf of customers of the pipelines or their representatives. It included detailed analysis
7 of the gas purchase contracts and other materials obtained in the discovery process. I
8 also testified in many pipeline rate proceedings and two pipeline gas inventory charge
9 (GIC) proceedings, and I reviewed the gas supply restructuring plans proposed by two
10 pipelines as part of their Order 636 compliance. I also reviewed the implementation of
11 Order 637 by two pipelines.

12 At the state level, I (along with one or more colleagues) have performed many
13 management/performance audits of the gas purchasing practices and policies of gas
14 distribution companies in Ohio, and our reports on these audits were submitted to the
15 Public Utilities Commission of Ohio (PUCO). The companies that I have audited
16 include three of the major GDCs in Ohio, as well as two smaller gas utilities that relied
17 to a large extent on purchases of local production for their system gas supplies.

18 Here in Michigan, I have reviewed and testified on the gas supply plans and gas cost
19 recovery (GCR) reconciliations of Consumers Energy Company (Consumers) and
20 Michigan Consolidated Gas Company (MichCon) in each year since 1988, except for the
21 three years when their GCR clauses were suspended. I have also reviewed and testified

1 on many of the gas supply plans and GCR reconciliations of Aquila Networks – MGU
2 (now Michigan Gas Utilities Corporation, or MGUC), and SEMCO Energy Gas
3 Company (SEMCO) during this period.

4 In New Jersey, I participated in the levelized gas adjustment clause (LGAC) proceedings
5 as a consultant to the Ratepayer Advocate (or its predecessor, the Public Advocate) for
6 ten years. During this period I have reviewed the LGAC filings and gas supply planning
7 of all four of the New Jersey GDCs. I also participated extensively in the consideration
8 of gas cost recovery issues in the unbundling proceedings and base rate cases of the New
9 Jersey GDCs.

10 In Maryland, I have for more than 25 years been reviewing the gas supply planning and
11 gas purchases of several Maryland utilities, including Baltimore Gas and Electric
12 Company ("BGE") and Washington Gas Light Company, in a variety of proceedings in
13 which I have worked on behalf of Maryland People's Counsel. Other states in which I
14 have done similar work include Pennsylvania, Nevada, and Utah.

Prepared Direct Testimony

1

2 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

3 A. I have been asked by the Michigan Department of Attorney General to make an
4 independent analysis of GCR plan filed in December 2005 by Aquila Networks – MGU
5 for the period April 2006 through March 2007. This testimony presents a report of that
6 analysis.

7 Now that the Michigan assets of Aquila have been transferred to a subsidiary of WPS
8 Corporation, which has changed the corporate name to Michigan Gas Utilities
9 Corporation, I shall generally refer to the applicant in this proceeding as MGUC.
10 However, I continue to refer to the filing as Aquila's.

11 **Q. WHAT TOPICS ARE YOU ADDRESSING IN YOUR TESTIMONY THIS YEAR?**

12 A. I am addressing four topics this year:

13 1. Aquila's request for changes in the GCR process, specifically the "five-point plan"
14 that Aquila attributes to Staff witness Robert G. Ozar.

15 2. The need for the Commission to establish a base GCR factor that reasonably reflects
16 current price conditions in the gas markets. Such a factor would be at least \$4.50 per
17 Mcf lower than the \$14.1603 per Mcf requested by Aquila for MGUC.

1 3. MGUC's proposed implementation of Aquila's fixed price commodity purchasing
2 plan, which MGUC witness Kent E. Huzzey explains in his direct testimony filed April
3 27, 2006.

4 4. Aquila's continued failure to assemble a consistent and clear GCR plan filing. I am
5 focusing this year on problems with the handling of billed and unbilled sales volumes.

6 **Q. WHAT CONCLUSIONS HAVE YOU REACHED AS A RESULT OF YOUR**
7 **ANALYSIS OF THESE TOPICS?**

8 A. I have reached the following conclusions:

9 (1) Aquila's five-point plan is no longer relevant as a rate reform package in GCR
10 proceedings. Two of the five points have been accepted by the Commission and
11 implemented by the large gas utilities in Michigan, and there is no further need for the
12 Company to address them as rate reforms. The Commission has addressed another two
13 of the five points on a case-by-case basis in various proceedings where they have arisen,
14 and it is neither necessary nor appropriate for the Commission to provide a generic or
15 policy resolution of these issues. The fifth point is Aquila's proposed probability
16 weighted price risk factor ("PWPRF"). The PWPRF is not reasonable and prudent, and
17 the Commission should reject it.

18 (2) The Company's proposed base GCR factor of \$14.1603 per Mcf is grossly
19 overstated. It should be reduced by the following adjustments:

1 (a) The PWPRF of \$1.7447 per Mcf should be removed, as I explain in my
2 discussion of Aquila's five-point plan.

3 (b) Aquila's filed base GCR factor of \$14.1603 per Mcf included a "tracker" of
4 \$0.1198 per Mcf for part of the cost of company use, losses, and unaccounted-for gas
5 volumes. This tracker should be removed, because MGUC has stated that it is
6 withdrawing Aquila's request for this tracker.

7 (c) Aquila's filing includes a projected GCR gas cost of \$12.2964 per Mcf,
8 based on NYMEX prices in early December 2005. Those NYMEX prices were
9 extraordinarily high, influenced especially by hurricanes Katrina and Rita, and NYMEX
10 prices have declined more than \$2 per Dth since then. MGUC's base GCR factor should
11 be readjusted downward to reflect more current NYMEX prices, which provide a much
12 more realistic outlook for MGUC's likely gas costs. A reduction of at least \$2.50 would
13 be appropriate to reflect NYMEX prices in the period since March 2006.

14 (d) The Commission should approve a base GCR factor of \$9.39 per Mcf. The
15 only appropriate components of the base GCR factor are the projected cost of gas, which
16 should reflect more current and realistic NYMEX prices as I have explained, and a small
17 adjustment to reflect the Company's projected small over-collection as of March 31,
18 2005.

19 (3) MGUC's proposed implementation of Aquila's fixed price purchasing strategy is
20 reasonable in its current context and should be approved. Details of the actual fixed
21 price purchase that MGUC made on April 10, 2006, prior to the filing of Mr. Huzzey's

1 testimony, should be reviewed in MGUC's 2006-2007 GCR reconciliation because the
2 parties have had insufficient time to review it and present responding testimony.

3 (4) There are inconsistencies in the GCR plan that Aquila prepared, and there are
4 clear errors in Aquila's presentation of its forecast of billed and unbilled sales. WPS
5 should address these deficiencies and take appropriate action to avoid a repetition of
6 these and similar errors in MGUC's GCR plan next year.

7 **Q. IS YOUR TESTIMONY ACCOMPANIED BY EXHIBITS?**

8 A. Yes. I prepared or selected Exhibits AG-1 through AG-3 to accompany this testimony.

9 **Aquila's Five-Point Plan for Rate Reform**

10 **Q. WHAT IS AQUILA'S FIVE-POINT PLAN FOR RATE REFORM?**

11 A. Aquila's five-point plan is a request for the following procedural changes:

12 1. Use of a contingent GCR factor matrix for quarterly adjustments to the maximum
13 GCR factor.

14 2. Self-implementation of the filed contingent factors.

15 3. A probability weighted price-risk adjustment ("PWPRF") to the GCR factor.

16 4. An update of the NYMEX futures prices used in developing the GCR plan.

17 5. Recognition of intra-period under-recoveries.

1 Company witness David J. Tyler presents Aquila's request for these changes at pages 7-
2 11 of his direct testimony. The five-points were originally presented by Staff witness
3 Robert G Ozar in testimony filed in MPSC Case No. U-14202. That case was a joint
4 application by Aquila and the RRC for changes in Aquila's GCR procedures. The
5 application was later withdrawn.

6 **Q. WHAT IS THE CURRENT STATUS OF THE FIVE-POINT PLAN?**

7 A. The five-point plan — viewed as a rate reform package — has been abandoned by all of
8 the interested parties except Aquila. None of the other large Michigan gas utilities has
9 presented any of the five points as an issue in its GCR plan this year.

10 Points 1 and 2 are not in dispute because the MPSC has approved them and there is no
11 longer any need to present them as contested issues in this GCR plan. The large gas
12 utilities (Aquila/MGUC, Consumers, MichCon, and SEMCO) have had contingent GCR
13 factors for several years. The others (except for Aquila) simply file their proposed
14 contingency mechanisms, and they do not address the general issue of whether a
15 contingency is appropriate unless challenged on this point by some other party. The
16 Commission has also approved self-implementation of filed contingency amounts.

17 The other three points appear to have been abandoned for different reasons. With regard
18 to point 4, updated GCR gas cost projections reflecting updated NYMEX prices have
19 been used in some GCR plan proceedings but not in others. They have been used in
20 some proceedings by implicit consent of the parties, and in some others the ALJ has
21 admitted them into evidence despite objection from some parties. In still other

1 proceedings there have been no updates except through the use of contingency
2 mechanisms. Except for Aquila, the other participants in GCR plan proceedings appear
3 to be content to let the use of NYMEX price updates be decided on a case-by-case basis,
4 if and when some party desires to introduce an update.

5 Point 5 is the proposal to recognize intra-period under-recoveries in establishing the
6 approved GCR factor. The Commission rejected that proposal in its October 29, 2003
7 order on Aquila's GCR plan for calendar year 2003, MPSC Case No. U-13550,¹ but that
8 rejection occurred before Mr. Ozar first presented his five-point plan in Case No.
9 U-14202. Aquila was the only large Michigan gas utility to include point 5 in its original
10 filing for its GCR plan for the period ending March 31, 2006 (U-14400), but all four
11 large Michigan gas utilities included recognition of intra-period under-recoveries at least
12 implicitly when they sought higher GCR factors in their reopened proceedings last fall.²
13 Two of the four reopened proceedings were settled with GCR factors lower than those
14 that the utilities claimed they needed to recoup their projected, going-forward gas price
15 increases as well as projected intra-period under recoveries. The Commission decided
16 the other two reopened proceedings, but its orders did not explicitly address the
17 recognition of intra-period under-recoveries. It appears from this review that all of the
18 participants in the GCR plan proceedings of the other large Michigan gas utilities —
19 including the utilities themselves, except for Aquila — are content to address the

¹ There the Commission found "it is in the best interest of the utility and the ratepayers that it set the GCR factor at a level that is most reflective of the actual cost of gas, without inclusion of beginning of the year under-recoveries." (Order, page 11.)

² The MPSC case numbers are U-14400 for Aquila, U-14401 for MichCon, U-14402 for SEMCO, and U-14403 for Consumers.

1 recognition of intra-period under-recoveries on a case-by-case basis, rather than by
2 obtaining a further statement of Commission policy on this issue.

3 So far as I am aware, the Commission has never decided the merits of a PWPRF, but
4 Aquila is the only large gas utility seeking one this year. There are several reasons why
5 a PWPRF is (in my opinion) inappropriate, but I am not aware of specific reasons why
6 the other large gas utilities are not seeking one.

7 **Q. COMPANY WITNESS TYLER CLAIMS THAT STAFF WITNESS OZAR**
8 **PRESENTED THE FIVE-POINT PLAN IN AQUILA’S GCR PLAN**
9 **PROCEEDING LAST YEAR, MPSC CASE NO. U-14400. DO YOU AGREE?**

10 A. No. Mr. Tyler is the one who presented the five-point plan last year — referring there to
11 Mr. Ozar’s original presentation in U-14202 — and his testimony in the present
12 proceeding is almost exactly a repetition of his U-14400 testimony on this subject.³ Mr.
13 Ozar identified the five points in his U-14400 testimony, and he stated that “Staff
14 remains committed to the concepts underlying [this] proposal” (page 5), but the only
15 point that he discussed was the development of the contingent factor tariff. He
16 characterized the contingent factor as the “cornerstone” of his five-point rate reform, and
17 he added (still at page 5) that it plus its self-implementation “should provide utilities with
18 a realistic opportunity to recover their cost of gas in the GCR annual period in which it is

³ Footnote 1 on page 8 of Mr. Tyler’s direct testimony this year is identical to footnote 2 on page 9 of his U-14400 testimony. But the referenced statement (that “the other three parts of the plan are new”) is not correct this year. Nor does the claim that the other three parts are new appear anywhere (that I could find) in Mr. Ozar’s testimony in U-14400, and certainly it is not at the cited location. The cited statement appears only in Mr. Ozar’s original presentation of the five-point plan in U-14202, and the correct reference is page 6, line 12 of that testimony.

1 incurred.” Mr. Ozar also referred to the recognition of intra-period under-recoveries in
2 his discussion of the symmetrical operation of the contingent factor tariff (page 16).
3 Except for his listing of the five points, I could not find anything in Mr. Ozar’s U-14400
4 testimony about the PWPRF adjustment or a NYMEX price update.

5 Mr. Ozar filed similar testimony in the GCR plan cases of the other three large gas
6 utilities last year. This year he did not mention the five-point plan or any of its
7 components in his testimony in the Consumers and MichCon GCR plan proceedings,
8 except to present his position on the most appropriate form for the contingent GCR
9 factor matrix. Staff and Intervenors do not file their direct testimony in this year’s
10 SEMCO GCR plan proceeding until after their filings in this MGUC proceeding.

11 **Q. WHAT IS YOUR POSITION ON AQUILA’S FIVE-POINT PLAN?**

12 A. The five-point plan is no longer relevant as a rate reform package for GCR proceedings.
13 MGUC may wish to present — and then it should also support — one or another of the
14 five points in some future proceeding, but the package as a whole should be discarded. It
15 was an interesting and innovative approach when Mr. Ozar first presented it, and it has
16 successfully influenced the GCR process, but Aquila’s repeated presentation of these
17 five points as a package has outlived its usefulness.

18 The presentation of points 1 and 2 (the contingent factor and its self-implementation) is
19 no longer necessary, as I have explained. MGUC should simply present and explain its
20 proposed quarterly contingency mechanism, self-implement that mechanism if it wishes,
21 and respond if some other party questions the mechanism or its implementation. No

1 action by the Commission is needed at this time with regard to points 1 and 2, except to
2 resolve any issue about the form of the contingency mechanism.

3 Point 3 — the PWPRF — has no proper place in a GCR plan. The Commission should
4 adjust MGUC's base GCR factor in the present proceeding to remove the PWPRF.

5 Under Section 6h(7), the Commission should also indicate that it would be unlikely to
6 permit MGUC to recover a PWPRF from customers in future cases.

7 Points 4 and 5 (updated NYMEX prices and recognition of intra-period under-
8 recoveries) should be left for determination on a case-by-case basis. The Commission
9 should not take any action on either of these points except in a proceeding where some
10 party has presented a revision or updating of the utility's GCR plan based on updated
11 NYMEX prices, or has proposed to include intra-period under-recoveries in the
12 calculation of the utility's base GCR factor.

13 **Q. DO YOU HAVE ANY FURTHER COMMENTS ABOUT POINTS 4 AND 5?**

14 A. Yes. The only way for the Commission to decide points 4 and 5 in the abstract is to
15 establish a general policy requiring — or precluding — the updating of NYMEX prices
16 and/or the recognition of intra-period under-recoveries in an update of a utility's entire
17 GCR plan shortly before the hearing. Anything short of a blanket requirement for or
18 prohibition of updating leaves these matters to be decided on a case-by-case basis. And
19 that case-by-case approach is the most appropriate policy.

1 The timing of the hearings in GCR plan cases can vary by at least several months, from
2 early spring to mid-summer. Some GCR plan cases are settled without going to hearing
3 at all. The timing of events that might upset a GCR plan is also unknown, and such
4 events can occur at any time of the year. It makes no sense to require updating in all
5 GCR plan cases at the time of the hearing, or to pre-grant the right of any party to insist
6 upon having the plan updated for the hearing. (And it would be grossly unfair for the
7 Commission to give the utility the sole option of deciding whether to update its GCR
8 plan.) On the other hand, I see little value in having the Commission try to tie its own
9 hands and those of the participants in these GCR plan cases by establishing a firm policy
10 that would deny parties the opportunity even to propose an update. The only remaining
11 option is a case-by-case determination, if and when some party requests an update.

12 **Q. CAN YOU PROVIDE FURTHER INFORMATION ABOUT THE REASONS WHY**
13 **OTHERS (BESIDES AQUILA) MAY HAVE ABANDONED POINT 5, RELATING**
14 **TO THE RECOGNITION OF INTRA-PERIOD UNDER-RECOVERIES?**

15 A. Yes. Intra-period under-recoveries were first identified as a major problem in the
16 summer of 2003, when gas prices had risen sharply at the end of the winter season. But
17 the utilities experiencing those intra-period under-recoveries were not then self-
18 implementing contingency adjustments to their filed GCR factors. Self-implementation
19 of contingency adjustments is sufficient to address the problem of factors for the first
20 half of the GCR annual period that might otherwise fail to recover the cost of gas
21 purchased and sold during the months of April through September. This intra-period
22 aspect of the under-recovery problem is also limited in size because the utilities have

1 only one-fourth of their annual sales in the first six months of the GCR annual period.
2 When Aquila and MichCon experienced large intra-period under-recoveries in 2003,
3 their GCR annual periods were still on a calendar year basis, and they were at much
4 greater risk of incurring large under-recoveries during the first few months of the GCR
5 annual period than they are now, with annual periods beginning in April. Finally, there
6 might also be legal objections to including intra-period under recoveries in GCR factors.

7 **Aquila's Proposed Probability Weighted Price-Risk Component (PWPRF)**

8 **Q. DID AQUILA INCLUDE A PWPRF IN ITS GCR FACTOR IN THIS**
9 **PROCEEDING?**

10 A. Yes. Aquila's filed base GCR factor of \$14.1603 per Mcf includes a PWPRF of \$1.7447
11 per Mcf, as indicated at page 6 of Mr. Tyler's direct testimony. Aquila placed the
12 PWPRF in the base GCR factor as an explicit line item, at line 14 on page 2 of Exhibit
13 A-2.

14 **Q. HAS EITHER AQUILA OR MGUC EXPLAINED WHY A PWPRF OF THIS**
15 **MAGNITUDE IS APPROPRIATE?**

16 A. No. The filed direct testimony of Messrs. Ono and Huzzey makes no mention of the
17 PWPRF. Company witness Tyler states at page 10 that his proposed PWPRF is "an
18 exchange-posted premium for *at-the-money* call-options for each month of the Plan
19 period". His work paper A-2-2 shows the amounts of these call-option premiums, but
20 nowhere does he even begin to explain why these call-option premiums are an
21 appropriate PWPRF.

1 **Q. DO MR. TYLER’S REFERENCES TO THE TESTIMONY OF STAFF WITNESS**
2 **OZAR HELP TO SUPPORT AQUILA’S PROPOSED PWPRF?**

3 A. No. Mr. Tyler refers to Mr. Ozar’s testimony in U-14400, but nowhere in his U-14400
4 testimony did Mr. Ozar state how a PWPRF should be calculated, or why such a
5 calculation would be appropriate. Mr. Tyler cites Mr. Ozar for the substance of his own
6 (Mr. Tyler’s) discussion of the PWPRF from page 9, line 22 through page 10, line 3. But
7 I could not find any support for this material anywhere in Mr. Ozar’s U-14400
8 testimony, and certainly there is none at the place cited by Mr. Tyler in footnote 6 on
9 page 10 of his testimony.⁴ If Mr. Ozar (or some other Staff or Intervenor witness)
10 presents direct testimony in support of a PWPRF in this proceeding, I intend to respond
11 in my rebuttal testimony; but the present record is devoid of evidence to support it.

12 **Q. ARE THERE OTHER PROBLEMS WITH MR. TYLER’S ATTEMPT TO USE**
13 **MR. OZAR’S TESTIMONY TO SUPPORT THE PWPRF?**

14 A. Yes. In Case No. U-14202, when he first presented his five-point plan, Mr. Ozar’s filed
15 testimony stated that the PWPRF was intended to enable a utility to avoid under-
16 recoveries early in its GCR annual period, and that the PWPRF was one of two
17 alternative ways to achieve this objective. He stated that this objective could also be
18 achieved through self-implementation of a contingent factor matrix filed by the utility
19 with its GCR plan. Now that the Commission has decided that a utility may implement

⁴ Nowhere in his U-14400 testimony did Mr. Ozar state that a PWPRF would “improve the accuracy of ... gas cost projections,” or that it would “reflect upside price probabilities in the NYMEX ... price curve.”

1 its contingent factor without prior Commission approval, Mr. Ozar's analysis no longer
2 provides any support for a PWPRF.

3 **Q. YOU RECOMMENDED THAT THE COMMISSION SHOULD GO BEYOND**
4 **THE ELIMINATION OF THE PWPRF FROM MGUC'S BASE GCR FACTOR**
5 **THIS YEAR, AND THAT IT SHOULD ALSO INDICATE A WILLINGNESS TO**
6 **ENTERTAIN A MOTION FOR A TEMPORARY ORDER TO ELIMINATE ANY**
7 **PWPRF THAT MGUC MIGHT INCLUDE IN ITS GCR PLAN FILING NEXT**
8 **YEAR. WHY SHOULD THE COMMISSION GO SO FAR?**

9 A. The inclusion of a PWPRF in a base GCR factor sends an erroneous price signal. Gas
10 prices are high enough without the inclusion of a large PWPRF (\$1.75 per Mcf in this
11 year's filing by Aquila) on top of a GCR gas cost that already reflects these very high
12 prices. Absent a temporary order removing the PWPRF, it would remain in the base
13 GCR factor until the Commission issued its final order on the GCR plan.

14 Mr. Tyler testifies at page 11 that the PWPRF is needed only to establish the initial GCR
15 ceiling factor, and that it is no longer needed when the Company begins to adjust its
16 factor on a quarterly basis in through the use of contingent factors. But now the
17 Company is permitted to adjust its initial GCR factor (for the first month of the GCR
18 annual period) by self-implementing its contingent factor matrix, so the PWPRF is not
19 needed at all. Its only remaining "purpose" is to provide an artificial, misleading, and
20 unnecessary inflation of the filed base GCR factor. The Commission should make it
21 clear that such tactics are unacceptable.

1 **Establishing a Reasonable Base GCR Factor**

2 **Q. WHAT GCR FACTOR DID AQUILA PROPOSE?**

3 A. Aquila's filing includes an initial Maximum Authorized GCR Factor (or Ceiling Price)
4 of \$14.1603 per Mcf (Exhibit A-1) and a quarterly contingency adjustment to the Ceiling
5 Price (Exhibit A-11). However, the base for the quarterly contingency adjustments is
6 \$12.2978 per Mcf, not the much higher initial Ceiling of \$14.1603 per Mcf.

7 As proposed by Aquila, the quarterly contingency adjustments can increase the
8 maximum GCR factor or ceiling price above the contingency base of \$12.2978 per Mcf,
9 but they cannot decrease the ceiling price. The first opportunity for a quarterly
10 contingency adjustment was applicable to the months of April, May, and June 2006,
11 which is the first quarter of MGUC's GCR annual period.

12 **Q. DID MGUC ADOPT AQUILA'S FILED FACTOR?**

13 A. Not entirely. After the transfer of Aquila's Michigan gas distribution properties to WPS,
14 MGUC filed a new tariff. Tariff sheet E-3.00 indicates that the Maximum Authorized
15 GCR Factor is \$12.2958 per Mcf. This amount is the projected gas cost of \$12.2964 per
16 Mcf that Mr. Tyler shows on page 6 of his testimony, less \$0.0006 per Mcf for the
17 projected over-collection from the 2005-2006 GCR period ended March 31, 2006.
18 MGUC has stated in connection with a discovery response that it is withdrawing Mr.
19 Tyler's testimony in support of the tracker for company use, losses, and unaccounted-for
20 gas. The Maximum Authorized Factor in the current tariff sheet (as of May 21, 2006)

1 also excludes Mr. Tyler's PWPRF, but I am not aware that MGUC has offered any
2 explanation of its reasons for this change. As I explained in my discussion of Aquila's
3 five-point plan for GCR rate reform, I support the elimination of the PWPRF from
4 MGUC's Maximum Authorized GCR Factor.

5 MGUC's new tariff also restated Aquila's filed contingent factor matrix, and it appears
6 in Tariff sheets E-3.01 through E-3.03. The only change that I was able to identify is
7 that MGUC restated the Base GCR Factor to be \$12.2958 per Mcf instead of the
8 \$12.2978 per Mcf in Exhibit A-11, which Aquila apparently derived from Mr. Ono's
9 Exhibit A-7, page 2. This change is not material in a GCR plan, and I have made no
10 attempt to determine the reasons for the small variance between the \$12.2958 in Mr.
11 Tyler's testimony and the \$12.2978 in Mr. Ono's Exhibits A-7 and A-11.

12 Exhibit AG-3 contains copies of MGUC's tariff sheets E-3.00 through E-3.03.

13 **Q. IS THE GCR FACTOR OF \$12.2958 PER MCF IN MGUC'S TARIFF SHEET A**
14 **REASONABLE MAXIMUM GCR FACTOR?**

15 A. No, it is not. In December 2005, when Aquila prepared the GCR plan, the NYMEX strip
16 for MGUC's GCR annual period (the 12 months April 2006 through March 2007) was
17 \$11.22 per Dth. But gas prices have declined enormously since then. The NYMEX strip
18 for the GCR annual period fell more than \$2.80 per Dth from early December to early
19 March, when it stood at \$8.35 per Dth, as shown in Exhibit AG-1.

1 Gas prices in April were somewhat higher than in early March, but the 12-month strip
2 for MGUC's GCR annual period remained about \$2 per Dth lower than the NYMEX
3 prices that Aquila used to develop its initial filing with the projected GCR gas cost of
4 \$12.2958 per Mcf. By mid-May, the NYMEX gas prices for the summer months of
5 2006 had fallen back to their early March levels. Prices for the winter months November
6 2006 through March 2007 were still higher than they had been in early March, but they
7 remained far below the prices that Aquila used to develop its GCR plan.

8 **Q. SHOULD MGUC'S PROPOSED BASE GCR FACTOR BE MODIFIED?**

9 A. Yes. The Commission should reduce MGUC's base (or "Maximum Authorized") GCR
10 factor to a level that reasonably reflects current gas market conditions, including the
11 current outlook for the future.

12 **Q. WHAT CHANGE DO YOU RECOMMEND?**

13 A. I recommend a base GCR factor of \$9.39 per Mcf. This base GCR factor would be the
14 Maximum Authorized Factor unless and until changed by order of the Commission or in
15 accord with a contingency adjustment procedure approved by the Commission. (Self-
16 implementation of the filed contingency plan should not be an issue then, because any
17 order modifying the base GCR factor would presumably address the contingency
18 mechanism too.)

19 **Q. HOW DID YOU DEVELOP YOUR RECOMMENDED BASE GCR FACTOR OF**
20 **\$9.39 PER MCF?**

1 A. I used the same procedure that Aquila itself proposed and MGUC has adopted for its
2 quarterly contingency adjustment mechanism, except that I used it to reflect a decrease in
3 the NYMEX gas futures prices instead of an increase. MGUC's proposed contingency
4 adjustment is stated in tariff sheets E-3.01 through E-3.03, which appear to be almost
5 identical to Exhibit A-11, as I have explained. This contingency adjustment is based
6 on the "three-input" method that Staff witness Ozar recommended last year, but only two
7 of the inputs are used for the first quarterly adjustment to be effective April 2006.

8 The first component of the Company's contingency adjustment for April 2006 would
9 increase the GCR factor Ceiling Price by a fractional multiplier of 0.590 per Mcf for
10 each increase of 1.000 per Dth in the NYMEX strip for the summer months April
11 through October 2006. The second component would be a further increase of 0.427 per
12 Mcf for each 1.000 per Dth increase in the NYMEX strip for the winter months
13 November 2006 through March 2007.

14 As indicated in Exhibit AG-1, the NYMEX strip for April through October 2006 was
15 \$7.231 per Dth in the first week of March 2006. This amount is a decrease of \$3.564 per
16 Dth from the corresponding NYMEX strip of \$10.795 per Dth that the Company used to
17 develop its GCR plan and its proposed GCR ceiling price of \$12.2958 per Mcf. I applied
18 the Company's summer season fractional multiplier of 0.590 to this decrease of \$3.564
19 per Dth in the summer NYMEX strip. The result indicated a reduction in the GCR
20 ceiling price of \$2.10 per Mcf. The calculation of this decrease is shown in Exhibit
21 AG-2.

1 Exhibit AG-1 shows also that the NYMEX strip for November 2006 through March
2 2007 decreased from \$11.816 per Dth in December 2005 to \$9.924 per Dth in March
3 2006. I applied the Company's winter season fractional multiplier of 0.427 to this
4 decrease of \$1.892 per Dth in the winter NYMEX strip, and I obtained an indicated
5 further decrease of \$0.81 per Mcf in the GCR ceiling price.

6 The combined effect of the decreases in the summer and winter NYMEX price strips is a
7 total reduction of \$2.91 per Mcf in the GCR ceiling price. The combined effect reduces
8 the GCR ceiling price from \$12.2958 per Mcf (as proposed by the Company) to \$9.385
9 per Mcf reflecting NYMEX gas prices in March 2006. I rounded this factor up to the
10 nearest whole penny to obtain my recommended base GCR ceiling price of \$9.39 per
11 Mcf.

12 **Q. WHY DID YOU USE THE NYMEX STRIP FOR THE FIRST WEEK OF MARCH**
13 **TO CALCULATE THE BASE GCR FACTOR?**

14 A. I used the NYMEX prices in the first week of March because those are the NYMEX
15 prices that Aquila or MGUC used (or could have used) to determine whether it would
16 implement a contingency adjustment to its GCR factor Ceiling Price for the first quarter
17 of the GCR annual period under the Company's proposed contingency adjustment
18 procedure. The Company's contingency calculation indicated that no adjustment was
19 needed, because the Company's procedure is a one-way street leading only to higher
20 Ceiling Prices, and there was no movement in that direction in March because gas prices
21 had fallen rather than risen since the Company prepared its GCR plan. My

1 recommendation is based on using MGUC's own proposed contingency mechanism as a
2 two-way street, to reflect the very large decreases in NYMEX gas prices that have
3 occurred since Aquila prepared the Company's GCR plan in December 2005.

4 **Q. ARE YOU RECOMMENDING THAT THE CONTINGENCY MECHANISM**
5 **SHOULD BE USED FOR DOWNWARD ADJUSTMENTS IN EACH QUARTER**
6 **OF THE GCR ANNUAL PERIOD, IF NYMEX PRICES HAVE FALLEN?**

7 A. Not necessarily. In years past, the Commission has approved some contingency
8 mechanisms that would only increase the maximum GCR factor, but not decrease it.
9 More recently, however, the Commission has required that the amount of the contingent
10 adjustment be recalculated each quarter, and that it be decreased when NYMEX prices
11 fell. But the Commission also recognized a base GCR factor in those more recent orders,
12 and it did not require contingent adjustments to reduce the maximum GCR factor below
13 the base GCR factor.

14 My recommendation is based on the assumption that the Commission will establish a
15 base GCR factor and a symmetric contingency adjustment, as in recent cases, and that
16 the contingent adjustment will apply only to the extent that it yields a quarterly factor
17 higher than the base GCR factor. My use of MGUC's proposed contingency mechanism
18 is just a convenient way to calculate a new base GCR factor that is consistent with
19 current prices for gas. A downward adjustment to the base GCR factor is needed this
20 year because Aquila prepared the Company's GCR plan under extraordinary gas market
21 circumstances that should not be reflected in the base GCR factor, especially not now

1 that the gas market has recovered from those extraordinary circumstances. I expand on
2 this point later in my testimony.

3 **Q. IS YOUR RECOMMENDED BASE GCR FACTOR OF \$9.39 PER MCF, BASED**
4 **ON THE NYMEX STRIP IN MARCH 2006, REASONABLE IN THE FACE OF**
5 **NYMEX PRICE INCREASES THAT HAVE OCCURRED SINCE THEN?**

6 A. Yes. MGUC has already established its GCR factors for April and May 2006, and it will
7 undoubtedly have established its June factor before the Commission has an opportunity
8 to issue a final order in this proceeding. On the assumption that the final order will
9 permit the inclusion of a quarterly contingency adjustment procedure, MGUC will have
10 an opportunity to add any appropriate contingency adjustment to the Ceiling Prices
11 reflecting the base GCR factor of \$9.39 per Mcf that I am recommending.

12 **Q. WOULD A FAILURE TO UPDATE MGUC'S BASE GCR FACTOR**
13 **AUTOMATICALLY MEAN THAT GCR CUSTOMERS WOULD BE CHARGED**
14 **TOO MUCH?**

15 A. No. MGUC itself established a GCR factor of \$9.3196 per Mcf for April 2006, and it
16 retained that same factor for May. This factor is 7¢ per Mcf below the base GCR factor
17 of \$9.39 per Mcf that I am recommending, and it therefore supports the reasonableness
18 of adopting \$9.39 per Mcf as the Ceiling Price beginning April 2006.

1 **Q. WHY SHOULD THE BASE GCR FACTOR BE REDUCED, IF MGUC IS**
2 **VOLUNTARILY CHARGING PRICES LOWER THAN THE MODIFIED BASE**
3 **GCR FACTOR THAT YOU RECOMMEND?**

4 A. MGUC's filed GCR ceiling price of \$12.2958 per Mcf reflects the extraordinary impact
5 of hurricanes Katrina and Rita, which struck the Gulf Coast gas producing basin in late
6 summer 2005 and seriously damaged the gas production facilities there. But it has now
7 become clear that the impact of these hurricanes was only a transitory event, and it is
8 unreasonable for MGUC's base GCR factor to reflect a transitory event whose impact on
9 gas prices ended even before the beginning of the GCR annual period.

10 **Q. ARE THERE OTHER REASONS FOR REDUCING THE BASE GCR FACTOR?**

11 A. Yes. MGUC sells gas to its GCR customers in competition with alternative suppliers
12 operating under the provisions of the Gas Customer Choice (GCC) program. MGUC's
13 base GCR factor is the benchmark price against which other suppliers compete.
14 Retention of MGUC's filed base GCR factor of \$12.2958 per Mcf is a false price signal
15 that distorts the competition between MGUC and alternative suppliers. It could lead
16 some customers to lock themselves into commitments to purchase gas from alternative
17 suppliers at prices much higher than prices realistically reflecting the current gas market.
18 This price signal conveys a misleading impression that MGUC itself is likely to be
19 charging gas prices around \$12 per Mcf. Exhibit AG-3 is a copy of MGUC tariff sheet
20 E-3.00. It shows the GCR factors that MGUC has actually charged in each month,
21 starting with April 2006. For the months from May 2006 through March 2007, it shows

1 the Company's proposed base GCR factor of \$12.2958 per Mcf as the maximum factor
2 that the Company can charge. Even if customers understand that MGUC may not
3 actually charge the maximum factor, they would not be likely to expect that the factor
4 should remain almost \$3 per Mcf lower under present gas market conditions.

5 **Q. HOW DOES YOUR RECOMMENDATION TO UPDATE MGUC'S BASE GCR**
6 **FACTOR RELATE TO YOUR POSITION ON POINT 4 OF AQUILA'S FIVE-**
7 **POINT PLAN FOR GCR RATE REFORM?**

8 A. Point 4 of Aquila's five-point plan is an update of the Company's GCR plan one week
9 prior to the scheduled date for motions to strike. Based on the current schedule for this
10 proceeding, that update would be due on July 7, 2006, and it would presumably reflect
11 NYMEX gas futures prices at some time in June or perhaps early July.

12 My position on point 4 is that the use and timing of updates should be decided on a case-
13 by-case basis, as I have explained in my discussion of the five-point plan, and the
14 decision about any proposed update should be based on circumstances at the time. The
15 update that I am recommending in this proceeding is entirely consistent with my position
16 on point 4, because I have explained why my recommended update is appropriate in the
17 specific circumstances of the present proceeding. I am not aware of any need for a
18 further updating of the GCR plan beyond the update that I recommended, based on
19 NYMEX prices in the first week of March 2006.

20 **Q. DO YOU HAVE ANY OTHER COMMENTS ABOUT MGUC'S BASE GCR**
21 **FACTOR?**

1 A. Yes. Aquila’s projection of MGUC’s purchased gas costs depends upon its forecast of
2 the “basis differentials” between the gas prices at Henry Hub (the location associated
3 with NYMEX futures contracts) and the gas prices at the places where MGUC actually
4 purchases (*i.e.*, receives) its gas supplies. Aquila’s use of basis differentials is discussed
5 at page 19 of the filed testimony of Mr. Ono, which MGUC witness Huzzey is adopting.

6 Aquila used the same NYMEX prices for its GCR plan that the other large Michigan
7 utilities used in their GCR plans this year. But Aquila did not use the same basis
8 differentials. Aquila and MichCon both purchase gas delivered into ANR in Louisiana
9 and in Oklahoma, into Panhandle, and at the Chicago hub. At these locations, Aquila
10 projected smaller basis discounts or larger basis premiums than MichCon. The result is
11 that Aquila planned to pay higher prices than MichCon for purchases at the same
12 location, even though both companies used the same NYMEX price forecast. The
13 differences range from a few cents per Dth at some locations to more than 30¢ per Dth at
14 other purchase locations.

15 I reviewed MichCon’s data supporting its projected basis differentials, and I found
16 MichCon’s projected basis differentials to be reasonable and consistent with the
17 historical record. I did not obtain or review Aquila’s support for the differentials used by
18 Mr. Ono, but comparison with the basis differentials used by MichCon suggests that
19 Aquila’s projections of its into-the-pipeline gas purchase prices are a bit higher than they
20 should be. I am not proposing any explicit adjustment of Aquila’s filed basis
21 differentials, because any such adjustment would be small compared to the NYMEX
22 price update that I am recommending. On the other hand, the inflated purchase price

1 projections that result from Aquila's projected basis differentials are a further indication
2 that there is some slack or "headroom" built into Aquila's projected GCR cost of gas,
3 and that my recommended adjustments are not removing this slack or "headroom."

4 **MGUC's Implementation of Aquila's Fixed Price Purchasing Plan**

5 **Q. WHY IS MGUC'S IMPLEMENTATION OF AQUILA'S FIXED PRICE**
6 **COMMODITY PURCHASING PLAN AN ISSUE IN THIS PROCEEDING?**

7 A. In 2003 and 2004, Aquila used a method it called "stochastics" to determine when to
8 make each of its monthly purchases for the Dollar Cost Averaging (DCA) component of
9 its fixed price purchasing plan. I examined the results in my testimony in Aquila's GCR
10 reconciliation for the period ended March 31, 2005 (MPSC Case Nos. U-13900-R and U-
11 13990-R, consolidated), and I concluded that the "stochastics" method was leading
12 Aquila to pay higher prices for its fixed price purchases than purely random timing of
13 those fixed price purchases. I therefore recommended against continued use of the
14 stochastics method. Case Nos. U-13900-R and U-13990-R were settled in March 2006,
15 after Aquila had filed its GCR plan in the present proceeding. In that reconciliation
16 settlement, Aquila agreed that the Company would present supplemental testimony in the
17 present GCR plan proceeding to address the implementation of the fixed price
18 purchasing plan. MGUC filed the direct testimony of its witness Kent E. Huzzey in
19 accordance with the reconciliation settlement.

20 **Q. DO YOU AGREE WITH MR. HUZZEY'S PROPOSED METHOD FOR TIMING**
21 **MGUC'S PURCHASES UNDER ITS DCA PLAN?**

1 A. Yes. Mr. Huzzey states that MGUC plans to make each of its monthly fixed price
2 purchases under its DCA plan in two installments. One installment would be on the fifth
3 day of each purchase month, and the second would be on the twentieth. MGUC will not
4 use stochastics to determine the purchase dates. This proposed new timing method is a
5 reasonable response to my recommendations in Case Nos. U-13900-R and U-13990-R.

6 **Q. DOES MR. HUZZEY'S TESTIMONY PRESENT OTHER ISSUES?**

7 A. Yes. Mr. Huzzey states that MGUC made its entire DCA purchase scheduled for April
8 2006 on April 10th. He states that on the same date MGUC also made a fixed price
9 purchase of 5,000 Dth per day of supplies to be delivered from May through October
10 2006. MGUC made these fixed price purchases before the Company filed Mr. Huzzey's
11 testimony.

12 **Q. DO YOU AGREE WITH THESE ADDITIONAL FIXED PRICE PURCHASES?**

13 A. I take no position on MGUC's April 10 fixed price purchases at this time. They should
14 be reviewed in MGUC's GCR reconciliation for 2006-2007, MPSC Case No.
15 U-14715-R, when that case is filed next year. It would not be feasible to conduct a
16 complete review of MGUC's April 10 fixed price purchases in the relatively short time
17 between the filing of Mr. Huzzey's testimony on April 27 and the hearing scheduled for
18 July 21. There is no need to conduct a separate review MGUC's actual fixed price
19 purchases during April 2006 in this GCR plan proceeding, when MGUC's actual fixed
20 price purchases in the remaining 11 months of its GCR annual period will be reviewed
21 next year in the GCR reconciliation proceeding.

Errors in Aquila's GCR Plan Filing

Q. CAN YOU PROVIDE AN OVERVIEW OF THE TYPES OF INCONSISTENCIES AND OTHER DEFICIENCIES THAT YOU HAVE FOUND IN AQUILA'S GCR PLAN FILING?

A. One recurring problem is incomplete updating of the direct testimony in support of the plan. In my discussion of Aquila's five-point plan, I showed that Mr. Tyler's testimony on that subject was not internally consistent. Another example is at page 21 of Mr. Ono's direct testimony, where he states that Exhibit A-3 (which is one of Mr. Tyler's exhibits) indicates a projected annual sendout of 23,668,000 Mcf. But that is not what Exhibit A-3 shows, nor is the error merely typographical, because none of the figures in Exhibit A-3 is close to 23,668,000 Mcf. Mr. Ono's own Exhibit A-7 matches the sendout figures in Mr. Tyler's Exhibit A-3, so it is clear that Mr. Ono had the correct figures available, but they did not find their way into his testimony.

Rather than attempt to provide a list of all the deficiencies in the GCR plan filing, I am focusing this year on problems with Aquila's development of its billed and unbilled sales.

Q. WHERE DO THE PROBLEMS WITH AQUILA'S BILLED AND UNBILLED SALES APPEAR?

A. Mr. Tyler presents Aquila's sales forecast in his Exhibit A-3. The "Total GCR Requirement" on line 17 of page 2 is treated by Mr. Ono as being a calendar month

1 requirement, because Mr. Ono uses it for his monthly GCR supply plan in Exhibit A-7,
2 page 4.⁵ The monthly pattern is also reasonable for calendar month sales, and I have not
3 identified any problem with the presentation of this information in Exhibit A-3.

4 Problems begin to appear in Mr. Tyler's work paper WP A-2-1. The "Sales" data on
5 lines 4, 8, and 12 there are consistent with Exhibit A-3, page 2, and they must therefore
6 be understood as calendar sales. But then the "Current Month Unbilled" volumes on
7 lines 3, 7, and 11 of WP A-2-1 are unreasonable. The unbilled volumes at the end of
8 October, November, and December are indicated to be larger — much larger for October
9 and November — than the total calendar sales for those months. That can only be
10 correct if the Company does not bill any of its October calendar month sales to any of its
11 customers until sometime in November, and that is not the way cycle billing works.
12 Unbilled sales at the end of October should represent the gas delivered to sales customers
13 on approximately half the days in October. The unbilled sales volume may exceed half
14 of the total calendar sales because the unbilled days are concentrated at the end of the
15 month, when the weather is generally colder than at the beginning of the month, but there
16 is no reasonable way that unbilled sales at month-end can exceed total calendar sales for
17 the month.

18 There is a further problem with the treatment of billed and unbilled sales in Exhibit A-2,
19 most notably on page 1 of that exhibit. There Aquila begins with the total GCR
20 requirement on a calendar month basis in column (b), using data from Exhibit A-3.

⁵ GCR supplies can only be arranged and stated on a calendar basis, because cycle billing is not used in gas supply activities.

1 Column (h) purports to show GCR sales on a cycle-billed basis, but it is calculated
2 incorrectly. To get from total GCR requirements to sales, one first backs out company
3 use and losses, and adds gas in kind. That part of the calculation is done correctly on
4 page 1 of Exhibit A-2. The result is calendar month sales, because total GCR
5 requirements are on a calendar month basis. To get from calendar month sales to cycle-
6 billed sales, one must then back out the current month's unbilled sales [column (f)] and
7 add the prior month's unbilled sales [column (g), shown in A-2 as a negative number].
8 But column (h) is calculated in Exhibit A-3 by adding the current month's unbilled sales
9 to the calendar month sales, and then subtracting the prior month's unbilled sales, which
10 is exactly backwards. As a result, the "[Cycle-]Billed GCR Volumes" in column (h) are
11 unreasonable. In the fall months, when unbilled sales are increasing as weather gets
12 colder, column (h) has unreasonably high "[Cycle-]Billed" volumes. After unbilled
13 volumes reach their peak in at the end of December, the monthly "[Cycle-]Billed"
14 volumes in column (h) become unreasonably low. Column (h) shows more billed
15 volumes in October than in March or even February. That is inconsistent with Exhibit
16 A-3, which indicates that calendar sales in October are less than half the calendar sales in
17 February. Billed sales should be less than calendar sales in October and billed sales
18 should be more than calendar sales in February (because the end of January is normally
19 colder than the end of February), but Exhibit A-2 has it backwards.

20 **Q. ARE YOU RECOMMENDING ANY ADJUSTMENTS TO MGUC'S GCR PLAN**
21 **TO CORRECT THESE DEFICIENCIES?**

1 A. No. It turns out that the problems with billed and unbilled sales have little or no effect
2 on the plan, because the calendar month sales forecast appears to have been handled
3 correctly, and calendar month sales are the basis for Aquila's monthly supply planning.
4 The errors in developing unbilled sales and cycle-billed monthly sales volumes could
5 affect the calculation of the GCR factor, but the effect is not large because the GCR
6 factor is based on annual sales, not monthly sales.

7 **Q. ARE YOU RECOMMENDING ANY OTHER CORRECTIVE ACTIONS?**

8 A. Yes. WPS should take appropriate corrective actions to ensure that these problems are
9 not repeated in MGUC's GCR plan for 2007-2008, when it is filed in December of this
10 year. It is especially important that MGUC have a reasonable way to project its monthly
11 unbilled volumes, and that it correctly develop cycle-billed sales if it uses or presents
12 them in its GCR plan.

13 If MGUC fails to make strong progress towards the elimination of these deficiencies
14 from its GCR plan for 2007-2008, then it would be appropriate for the Commission to
15 issue a Section 6h(7) warning at that time. I do not recommend a formal warning at this
16 time, because it is clear that the problems I have identified are deficiencies in the way
17 Aquila prepared the GCR plan, and WPS should be given an opportunity to correct those
18 deficiencies before any further action is taken.

19
20 **Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY?**

21 A. Yes, it does.

Michigan Gas Utilities Corporation

NYMEX Futures Prices in December 2005, As Used by Aquila for MGUC's GCR Plan,
And More Recent NYMEX Futures Prices for MGUC's GCR Annual Period

Contract Month ~~~~~	Dec. 1 to Dec. 7, 2005 ~~~~~	Jan. 3 to Jan. 9, 2006 ~~~~~	Feb. 1 to Feb. 7, 2006 ~~~~~	March 1 to March 7, 2006 ~~~~~
April 2006	\$10.934	\$9.592	\$8.463	\$6.702
May	\$10.692	\$9.575	\$8.583	\$6.910
June	\$10.724	\$9.623	\$8.690	\$7.102
July	\$10.764	\$9.682	\$8.790	\$7.290
August	\$10.807	\$9.731	\$8.873	\$7.431
September	\$10.799	\$9.748	\$8.928	\$7.531
October	\$10.843	\$9.807	\$9.012	\$7.649
November	\$11.309	\$10.397	\$9.867	\$8.743
December	\$11.769	\$10.968	\$10.630	\$9.750
January 2007	\$12.144	\$11.402	\$11.148	\$10.437
February	\$12.080	\$11.416	\$11.163	\$10.442
March	\$11.777	\$11.212	\$11.001	\$10.247
	-----	-----	-----	-----
12- month average	\$11.220	\$10.263	\$9.596	\$8.353

Source Exhibit A-6,
 page 2

Seasonal Averages

April – October	\$10.795	\$9.680	\$8.763	\$7.231
November – March	\$11.816	\$11.079	\$10.762	\$9.924

Michigan Gas Utilities Corporation

Calculation of Base GCR Factor Recommended by Attorney General's Witness

Base GCR factor in tariff sheet 3.01 (Exhibit AG-3), which corresponds to Exhibit A-11 **\$12.2958**

Adjustment for first quarter (April – June) based on tariff sheet 3.01

		Summer April–Oct	Winter Nov–March	
Plan NYMEX in Exhibit A-11 and tariff sheet 3.01	\$ per Dth	\$10.7949	\$11.8159	
NYMEX 5-day average in March 2006	\$ per Dth	\$7.2307	\$9.9238	
NYMEX increase / (decrease)	\$ per Dth	(\$3.5642)	(\$1.8921)	
Fractional multiplier in Exhibit A-11 and tariff sheet 3.01		0.590	0.427	
Adjustment to base GCR factor	\$ per Mcf	(\$2.1029)	(\$0.8079)	
Total adjustment to base GCR factor				(\$2.9108)
Base GCR factor after adjustment to reflect March 2006 NYMEX 5-day average				\$9.3850

Continued from Sheet No. E-2.00

E3. GAS COST RECOVERY FACTORS

U-14715 Exhibit AG-3, Page 1

The listed monthly Gas Cost Recovery Factors are authorized pursuant to Rule B10, Gas Cost Recovery Clause.

Billing Month	Maximum Authorized Factor \$/Mcf	Actual Factor Billed \$/Mcf
April 2006	\$12.2958	\$9.3196
May 2006	\$12.2958	\$9.3196
June 2006	\$12.2958	
July 2006	\$12.2958	
August 2006	\$12.2958	
September 2006	\$12.2958	
October 2006	\$12.2958	
November 2006	\$12.2958	
December 2006	\$12.2958	
January 2007	\$12.2958	
February 2007	\$12.2958	
March 2007	\$12.2958	

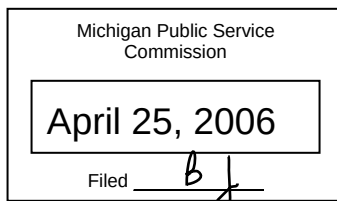
The Company will file a revised Sheet No. E-3.00 monthly or as necessary to reflect the factor to be billed the following month.

The Company will file by December 31, 2006 for maximum Gas Cost Recovery Factors for April 2007 through March 2008. The Gas Cost Recovery Factor to be charged beginning April 2007 is authorized pursuant to §6(h)(9) of 1982 PA 304, as amended, MCL 460.6h et seq.

In addition to the above Gas Cost Recovery Factors, rates are subject to the supplemental charges shown on Sheet No. E-2.00.

Continued on Sheet No. E-3.01

Issued: **May 1, 2006**
By J F Schott
VP Regulatory Affairs
Green Bay, Wisconsin



Effective for bills rendered for the April 2006 through March 2007 billing months.
Issued Under Auth. Of 1982 PA 304,
Section 6h and the Michigan Public Service
Commission for self-implementing
In Case No: U-14715

Continued from Sheet No. E-3.00

E3.1 GCR Ceiling Price Contingency Matrix U-14715 Exhibit AG-3, Page 2

		April-June 1st Q		July-Sept 2nd Q		
		Summer	Winter	Summer	Winter	DCA
		April-Oct	Nov-Mar	April-Oct	Nov-Mar	Nov-Mar
Fractional Mult. F_m		0.590	0.427	0.510	0.393	0.107
Plan NYMEX (X_{plan})		\$10.7949	\$11.8159	\$10.7949	\$11.8159	\$11.8159
Base GCR Factor		\$12.2958	\$12.2958	\$12.2958	\$12.2958	\$12.2958
NYMEX Increase Greater than Or Equal to		Incremental Contingent GCR Factor \$/Mcf				
But Less than						
\$0.00	\$0.05	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000
\$0.05	\$0.10	\$0.030	\$0.021	\$0.026	\$0.020	\$0.005
\$0.10	\$0.15	\$0.059	\$0.043	\$0.051	\$0.039	\$0.011
\$0.15	\$0.20	\$0.089	\$0.064	\$0.077	\$0.059	\$0.016
\$0.20	\$0.25	\$0.118	\$0.085	\$0.102	\$0.079	\$0.021
\$0.25	\$0.30	\$0.148	\$0.107	\$0.128	\$0.098	\$0.027
\$0.30	\$0.35	\$0.177	\$0.128	\$0.153	\$0.118	\$0.032
\$0.35	\$0.40	\$0.207	\$0.149	\$0.179	\$0.138	\$0.037
\$0.40	\$0.45	\$0.236	\$0.171	\$0.204	\$0.157	\$0.043
\$0.45	\$0.50	\$0.266	\$0.192	\$0.230	\$0.177	\$0.048
\$0.50	\$0.55	\$0.295	\$0.214	\$0.255	\$0.197	\$0.054
\$0.55	\$0.60	\$0.325	\$0.235	\$0.281	\$0.216	\$0.059
\$0.60	\$0.65	\$0.354	\$0.256	\$0.306	\$0.236	\$0.064
\$0.65	\$0.70	\$0.384	\$0.278	\$0.332	\$0.255	\$0.070
\$0.70	\$0.75	\$0.413	\$0.299	\$0.357	\$0.275	\$0.075
\$0.75	\$0.80	\$0.443	\$0.320	\$0.383	\$0.295	\$0.080
\$0.80	\$0.85	\$0.472	\$0.342	\$0.408	\$0.314	\$0.086
\$0.85	\$0.90	\$0.502	\$0.363	\$0.434	\$0.334	\$0.091
\$0.90	\$0.95	\$0.531	\$0.384	\$0.459	\$0.354	\$0.096
\$0.95	\$1.00	\$0.561	\$0.406	\$0.485	\$0.373	\$0.102
\$1.00	\$1.05	\$0.590	\$0.427	\$0.510	\$0.393	\$0.107
\$1.05	\$1.10	\$0.620	\$0.448	\$0.536	\$0.413	\$0.112
\$1.10	\$1.15	\$0.649	\$0.470	\$0.561	\$0.432	\$0.118
\$1.15	\$1.20	\$0.679	\$0.491	\$0.587	\$0.452	\$0.123
\$1.20	\$1.25	\$0.708	\$0.512	\$0.612	\$0.472	\$0.128
\$1.25	\$1.30	\$0.738	\$0.534	\$0.638	\$0.491	\$0.134
\$1.30	\$1.35	\$0.767	\$0.555	\$0.663	\$0.511	\$0.139
\$1.35	\$1.40	\$0.797	\$0.576	\$0.689	\$0.531	\$0.144
\$1.40	\$1.45	\$0.826	\$0.598	\$0.714	\$0.550	\$0.150
\$1.45	\$1.50	\$0.856	\$0.619	\$0.740	\$0.570	\$0.155
\$1.50	\$1.55	\$0.885	\$0.641	\$0.765	\$0.590	\$0.161
\$1.55	\$1.60	\$0.915	\$0.662	\$0.791	\$0.609	\$0.166
\$1.60	\$1.65	\$0.944	\$0.683	\$0.816	\$0.629	\$0.171
\$1.65	\$1.70	\$0.974	\$0.705	\$0.842	\$0.648	\$0.177
\$1.70	\$1.75	\$1.003	\$0.726	\$0.867	\$0.668	\$0.182
\$1.75	\$1.80	\$1.033	\$0.747	\$0.893	\$0.688	\$0.187
\$1.80	\$1.85	\$1.062	\$0.769	\$0.918	\$0.707	\$0.193
\$1.85	\$1.90	\$1.092	\$0.790	\$0.944	\$0.727	\$0.198
\$1.90	\$1.95	\$1.121	\$0.811	\$0.969	\$0.747	\$0.203
\$1.95	\$2.00	\$1.151	\$0.833	\$0.995	\$0.766	\$0.209

April 1, 2006 third and fourth quarter adjustments located on following page.

Continued on Sheet No. E-3.02

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Continued from Sheet No. E-3.01

E3.1 GCR Ceiling Price Contingency Matrix (Contd) U-14715 Exhibit AG-3, Page 3

		Oct-Dec 3rd Q			Jan-Mar 4th Q		
		Summer	Winter	DCA	Summer	Winter	DCA
		April-Oct	Nov-Mar	Nov-Mar	April-Oct	Jan-Mar	Nov-Mar
Fractional Mult. F_m		0.461	0.311	0.234	0.386	0.309	0.309
Plan NYMEX (X_{plan})		\$10.7949	\$11.8159	\$11.8159	\$10.7949	\$11.8159	\$11.8159
Base GCR Factor		\$12.2958	\$12.2958	\$12.2958	\$12.2958	\$12.2958	\$12.2958
NYMEX Increase Greater than But Less Or Equal to than		Incremental Contingent GCR Factor \$/Mcf					
\$0.00	\$0.05	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000
\$0.05	\$0.10	\$0.023	\$0.016	\$0.012	\$0.019	\$0.015	\$0.015
\$0.10	\$0.15	\$0.046	\$0.031	\$0.023	\$0.039	\$0.031	\$0.031
\$0.15	\$0.20	\$0.069	\$0.047	\$0.035	\$0.058	\$0.046	\$0.046
\$0.20	\$0.25	\$0.092	\$0.062	\$0.047	\$0.077	\$0.062	\$0.062
\$0.25	\$0.30	\$0.115	\$0.078	\$0.059	\$0.097	\$0.077	\$0.077
\$0.30	\$0.35	\$0.138	\$0.093	\$0.070	\$0.116	\$0.093	\$0.093
\$0.35	\$0.40	\$0.161	\$0.109	\$0.082	\$0.135	\$0.108	\$0.108
\$0.40	\$0.45	\$0.184	\$0.124	\$0.094	\$0.154	\$0.124	\$0.124
\$0.45	\$0.50	\$0.207	\$0.140	\$0.105	\$0.174	\$0.139	\$0.139
\$0.50	\$0.55	\$0.231	\$0.156	\$0.117	\$0.193	\$0.155	\$0.155
\$0.55	\$0.60	\$0.254	\$0.171	\$0.129	\$0.212	\$0.170	\$0.170
\$0.60	\$0.65	\$0.277	\$0.187	\$0.140	\$0.232	\$0.185	\$0.185
\$0.65	\$0.70	\$0.300	\$0.202	\$0.152	\$0.251	\$0.201	\$0.201
\$0.70	\$0.75	\$0.323	\$0.218	\$0.164	\$0.270	\$0.216	\$0.216
\$0.75	\$0.80	\$0.346	\$0.233	\$0.176	\$0.290	\$0.232	\$0.232
\$0.80	\$0.85	\$0.369	\$0.249	\$0.187	\$0.309	\$0.247	\$0.247
\$0.85	\$0.90	\$0.392	\$0.264	\$0.199	\$0.328	\$0.263	\$0.263
\$0.90	\$0.95	\$0.415	\$0.280	\$0.211	\$0.347	\$0.278	\$0.278
\$0.95	\$1.00	\$0.438	\$0.295	\$0.222	\$0.367	\$0.294	\$0.294
\$1.00	\$1.05	\$0.461	\$0.311	\$0.234	\$0.386	\$0.309	\$0.309
\$1.05	\$1.10	\$0.484	\$0.327	\$0.246	\$0.405	\$0.324	\$0.324
\$1.10	\$1.15	\$0.507	\$0.342	\$0.257	\$0.425	\$0.340	\$0.340
\$1.15	\$1.20	\$0.530	\$0.358	\$0.269	\$0.444	\$0.355	\$0.355
\$1.20	\$1.25	\$0.553	\$0.373	\$0.281	\$0.463	\$0.371	\$0.371
\$1.25	\$1.30	\$0.576	\$0.389	\$0.293	\$0.483	\$0.386	\$0.386
\$1.30	\$1.35	\$0.599	\$0.404	\$0.304	\$0.502	\$0.402	\$0.402
\$1.35	\$1.40	\$0.622	\$0.420	\$0.316	\$0.521	\$0.417	\$0.417
\$1.40	\$1.45	\$0.645	\$0.435	\$0.328	\$0.540	\$0.433	\$0.433
\$1.45	\$1.50	\$0.668	\$0.451	\$0.339	\$0.560	\$0.448	\$0.448
\$1.50	\$1.55	\$0.692	\$0.467	\$0.351	\$0.579	\$0.464	\$0.464
\$1.55	\$1.60	\$0.715	\$0.482	\$0.363	\$0.598	\$0.479	\$0.479
\$1.60	\$1.65	\$0.738	\$0.498	\$0.374	\$0.618	\$0.494	\$0.494
\$1.65	\$1.70	\$0.761	\$0.513	\$0.386	\$0.637	\$0.510	\$0.510
\$1.70	\$1.75	\$0.784	\$0.529	\$0.398	\$0.656	\$0.525	\$0.525
\$1.75	\$1.80	\$0.807	\$0.544	\$0.410	\$0.676	\$0.541	\$0.541
\$1.80	\$1.85	\$0.830	\$0.560	\$0.421	\$0.695	\$0.556	\$0.556
\$1.85	\$1.90	\$0.853	\$0.575	\$0.433	\$0.714	\$0.572	\$0.572
\$1.90	\$1.95	\$0.876	\$0.591	\$0.445	\$0.733	\$0.587	\$0.587
\$1.95	\$2.00	\$0.899	\$0.606	\$0.456	\$0.753	\$0.603	\$0.603

Continued on Sheet No. E-3.03

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Continued from Sheet No. E-3.02

E3.1 GCR Ceiling Price Contingency Matrix (Contd)

U-14715 Exhibit AG-3, Page 4

NYMEX Increase = (X – Xplan)

X = the simple average of the actual NYMEX monthly natural gas futures contract prices, (\$/MMBtu), for the summer strip (Apr-Oct), remaining months of the winter strip (Nov-Mar), and the calculated DCA strip (averaged over the first five trading days of the month prior to implementation).

Xplan = the NYMEX average summer, winter, and DCA strips incorporated in the calculation of the base GCR factor, as delineated in the charts on Sheet Nos. E-3.01 and E-3.02.

At least fifteen days before the beginning of each quarter, the company shall file with the Michigan Public Service Commission an updated Tariff Sheet No. E-3.00, if NYMEX futures prices increase to a level allowing for the implementation of a higher contingent GCR price ceiling. The information filing shall include all supporting documents necessary to verify the new price ceiling, including a copy of the calculation of the five-day average of the NYMEX strip for the remaining months of the GCR period, and a copy of the NYMEX futures prices sheets for the first five trading days of the month, such sheets being an authoritative source used by the gas industry. The filing shall be incorporated into the GCR Plan Docket U-14400 with notice of filing provided to all interveners.

Use of the Incremental Contingent GCR Factor Table

- Step 1) Using the first five trading days of the month prior to implementation determine two NYMEX five day averages. One for the seven month summer strip $\underline{X}_s$ (Apr-Oct), one for the remaining months of the five month winter strip $\underline{X}_w$ (Nov-Mar). Closing prices should be used for the summer months that are no longer trading. Only the remaining months should be used to calculate the winter strip.
- Step 2) Determine the NYMEX increase for the summer and winter strips by subtracting the NYMEX plan $\underline{X}_{plan}$ for that strip from $\underline{X}$ calculated above for that same strip.
- Step 3) To determine the NYMEX increase for the DCA_{winter} strip, multiply the summer strip average $\underline{X}_s$ (Apr-Oct) calculated above by $f_{w/s}$. This is the winter to summer strip ratio, which converts the summer strip average to a winter DCA strip average. Subtract the $\underline{X}_{plan}$ value under the DCA column on the tariff sheet from the DCA_{winter} just calculated to obtain the DCA NYMEX increase. Note: $f_{w/s}$ has a value of 1.12.
- Step 4) Locate the three incremental contingent GCR factors, which correspond with the three NYMEX increases calculated in the previous steps (Summer, Winter, and DCA), in the table for the desired quarter. The first quarter will only have two incremental contingent factors because the DCA strip is not included in the first quarter.
- Step 5) Add the incremental contingent GCR factors to the base GCR factor. The result is the new GCR factor for that quarter. If the new GCR factor is lower than the current ceiling in place, the higher ceiling will remain the price ceiling for the upcoming quarter.

Continued on Sheet No. E-4.00

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