

**- BEFORE THE PUBLIC SERVICE COMMISSION OF UTAH -**

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**Joint Application of Questar Gas Company, the | Docket No. 05-057-T01  
Division of Public Utilities, and Utah Clean Energy, | Utah Division of Public Utilities  
Approval of the Conservation Enabling Tariff | Exhibit No. DPU 2.0 SR  
Adjustment Option and Accounting Orders |**

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**Surrebuttal Testimony of  
George R. Compton, Ph.D.**

**For the Division of Public Utilities  
Department of Commerce  
State of Utah**

**August 14, 2006**

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### I. INTRODUCTION

**Q. Are you the same George Compton who caused direct testimony to be prefiled in this docket on January 23<sup>rd</sup> of this year?**

A. I am.

**Q. What is the purpose of this testimony that you are now filing?**

A. I will be responding to portions of the rebuttal testimonies of Elizabeth Wolf, on behalf of Salt Lake

Community Action Program, etc, Kevin Higgins, on behalf of the Utah Association of Energy Users (UAE), and Dr. David Dismukes, on behalf of the Utah Committee of Consumer Services. I have also included an exhibit, DPU 2.1 SR, which responds to questions that Commission Staff posed for the technical conference that was held on June 7<sup>th</sup>. The manager of the Energy Section, Dr. William (Artie) Powell, was a joint author of those responses. Dr. Powell provided most of the DSM-specific material. I provided most of the general regulatory material. Dr. Powell and Questar's Barrie McKay have also filed material in response to the policy initiatives that the Committee of Consumer Services incorporated with Dr. Dismukes' responses to the Commission Staff questions.

## II. SURREBUTTAL RESPONDING TO ELIZABETH WOLF

**Q. To begin, what is the gist of the Direct Testimony that was filed by Elizabeth Wolf .?**

A.. Her basic point was that any lost-revenue recovery mechanism – decoupling or other – should not be put into place until some DSM program was approved and in effect. Removing disincentives from implementing DSM prior to installing incentives for implementing DSM programs was seen as “putting the cart before the horse.” [P. 10, line 19] Other points were made that I will address later.

**Q. How would you respond to that basic point?**

A. In view of her obvious enthusiasm for DSM, Ms. Wolf seems to disregard one of the primary objectives for the CET on the part of at least two of its co-applicants (the DPU and the Company). That objective is to stabilize net revenues in the face of declining usage – *regardless of its source*. Most of my testimony focused on the declining usage matter rather than the objective of promoting DSM. But insofar as a party is truly desirous of seeing DSM programs going into effect, I would have thought that it would have joined Utah Clean Energy in endorsing the removal of clear impediments towards achieving that objective. Any attempted DSM program (Ms. Wolf's “horse”) will likely be less than successful if there is an attempt to institute it ahead of some compensatory mechanism (the “cart”). Given a well-founded reluctance on the part of Questar to unilaterally engage in any activity that would reduce its earnings, and given the advantages to having the affected utility's full cooperation in the design and construction of an effective DSM program, it simply does not make sense to attempt to “put the horse ahead of the cart.”

**Q. What other arguments did Ms. Wolf raise against the CET?**

A. She seemed bothered by the fact that its primary beneficiary could be the utility, and not its customers.

**Q. Do you accept that proposition, and, if so, are you similarly bothered?**

A. Let me begin by saying that one can't unequivocally accept the premise that the primary beneficiary is the Company and not its ratepayers. The latter would have received an immediate, 2006 heating season benefit from the rates reduction if the CET had been implemented according to the proposed schedule. Longer term benefits to ratepayers would depend on: a) the success in reducing retail rates of the future DSM programs that

are fostered by the removal of the disincentive towards such under the current rate-making paradigm; b) the degree to which the CET was ultimately translated to lower capital costs; and c) the degree of savings owing to the need for fewer general rate cases and having regulatory time better spent in other pursuits. But even if Questar were the sole beneficiary of the CET, such would not be inappropriate if implementing a CET rectified a situation where it had been difficult, if not impossible, for the utility – without compromising service quality - to fully earn a rate of return that was found just and reasonable by this Commission.

**Q. In view of the risk reduction involved and its cost of capital implications, and for other reasons, Ms. Wolf claimed that the appropriate venue for dealing with this matter would be a general rate case. Do you agree?**

A. There are pros and cons to the general rate case venue in this context. An important reason the Division opted for the tariff-change alternative was to achieve an immediate general rate reduction – i.e., to circumvent the ordinary 240-day general rate case calendar. Another practical advantage of the tariff-change proceeding is that there could be a primary focus on the CET itself, without the rate-of-return contentions, the major and minor accounting adjustments, and the other “distractions” that would accompany a general rate case. And while the general rate case setting would have allowed for a more thorough rate-of-return review, it is noteworthy that from the DPU’s viewpoint the Joint Application did in fact incorporate a modest reduction in that element. And as the Division repeatedly affirmed, the Joint Application did not preclude our or others’ instigating an earnings review and general rate case that was as timely as could be appropriate and practical.

**Q. On a different note, Ms. Wolf [p.20] cites the recent NRRI publication, *Revenue Decoupling for Natural Gas Utilities*, as positing the following two conditions (along with declining customer usage over time) as priors for supporting something like the CET: “2) limited ability for the utility to add new customers in increasing sales; and 3) a commission’s inability to go beyond known and measurable changes in a test year.” Do you agree with those conditions?**

A. Your first-listed condition applies to *full* revenue decoupling, not the *average* revenue decoupling that makes up the CET. Full revenue decoupling, which fixes *total* distribution non-gas (DNG) revenues over a given time frame -- is indeed totally inappropriate in an environment where customers, and, for that reason, revenues, are growing. That is because with full revenue decoupling the utility would have to refund some or all of the non-fuel related revenues that were added due to the growth, thereby depriving it of the extra funds needed to supply the infrastructure for accommodating that growth. In such a growth environment, the NRRI report properly affirmed that (full revenue) decoupling would be inappropriate. It should be clear, however, that the no-growth condition is not applicable where decoupling adjustments to rates are based on changes in *average*, not total, revenues. Then, as long as new customers use an average amount of gas, adding customers and their associated DNG revenues will have no effect on CET balancing account accruals. That means the utility will be able to keep the added DNG revenues as a resource for paying for the incremental infrastructure costs of adding the customers.

As regards the item-three condition, yes, with a fully forecasted test period now being allowed by statute, the Commission has every ability to “go beyond known and measurable changes in a test year.” And yes, the ability of a future test year to deal with declining customer use over time is self evident. But the mere ability of a future test year to deal with this matter does not rule out the legitimacy of other approaches or preclude them from being administratively or otherwise superior. There are definite advantages to avoiding the annual future-test-period-based general rate cases that, without decoupling, would be necessary to more or less precisely track the annual reductions in Questar’s average use per customer. As my Direct Testimony indicated, the CET balancing account reduces if not eliminates the tendency for the utility to underestimate future sales and over-estimate future costs (with the attendant countervailing regulatory contention) as practices it might engage in to enable it to earn its sought-after return on equity over time without requiring costly and otherwise burdensome annual general rate cases.

### III. SURREBUTTAL RESPONDING TO KEVIN HIGGINS

- Q. The first part of your last answer is a good segue to the Direct Testimony filing of Mr. Kevin Higgins. Much of his material, e.g., the need for general rate case consideration to address capital cost implications, was also contained in the testimony of Ms. Wolf to which you have already responded. But he raised an interesting point about the consequences of adding new customers whose average usage happened to be below that of existing customers. Wouldn’t that trigger a rate increase even if the consumption behavior of the existing customers was static? And, if so, doesn’t that bother you?**
- A. The answer to your first answer is “yes.” To your second it’s “not necessarily.” As Mr. Higgins pointed out [p. 12], the CET yields what is equivalent to a single-item rate increase.  Such would in fact be undesirable if the Company were already earning at or above its authorized rate of return. But other cost and revenue factors attending growth will likely offset any over-earning tendencies. The fact that new customers have lower-than-average usage does not mean that they will necessarily have lower-than-average distribution non-gas costs – particularly when new facilities’ costs are compared with those of depreciated, embedded-cost facilities. To the contrary, Questar’s Barrie McKay informed us in the June 7, 2006 technical conference that average new infrastructure costs are almost double embedded average costs.  Insofar as incremental costs exceed average DNG costs, CET-driven rate increases (which have the overall effect of only bringing incremental revenues from new customers up to average revenues) owing to reduced average sales will only allow the Company to mitigate its losses from adding new customers rather than leading to over-earning.  Such mitigation may allow the Company to avoid what would have been an even larger increase to compensate for the added high-cost plant that was necessary for serving the new customers. In any event, part of the experimental nature of the CET proposal will be to monitor whether it in fact does allow Questar to over-earn. Given how many years the Company has under-earned, for it to slightly over-earn for a year or two should not signify regulatory failure or

dereliction.

**Q. Surely you must agree with Mr. Higgins that “decoupling constitutes a fundamental change in ratemaking philosophy.” [p. 9]**

A. I agree in the sense that another element has been added to the weather normalization adjustment (WNA) to each customer’s monthly rates so as to stabilize Questar’s fixed cost recovery. I would say that the WNA constituted the more fundamental change in the sense that it established a precedent to go beyond stabilizing revenues for fuel costs by adding the stabilization of revenues for that Company’s fixed cost recovery. Obviously, to stabilize fixed cost recovery by “removing more of its fixed costs from the volumetric charge”  via the adoption of a larger customer charge would constitute an even greater change in ratemaking philosophy than would the CET. I mention this point because some parties who oppose the CET have argued that a larger customer charge would better reflect true cost causation. I responded to that argument in my direct testimony (pp. 14 -18). The gist of it was that where non-demand/energy-related distribution/infrastructure costs (which costs, accordingly, are properly categorized as customer costs) cannot be attributed to specific customers (in contrast to the category of customer costs which this Commission has expressly allowed to comprise the customer charge), then it is most appropriate to price those generalized customer costs according to benefits received and so as to foster other recognized ratemaking objectives, e.g., conservation. The volumetric DNG energy charge accomplishes both those purposes. To reiterate, a large portion of infrastructure costs (e.g., rights-of-way and trenches for gas mains and feeders) are shared costs and not expressly “caused” by single, identifiable customers. Particularly in light of the fact that the GS-1 class includes the largest of commercial, space-heating customers along with small residential customers, for the large body of shared costs to be priced simply by dividing those costs by the number of customers in the GS-1 class – which would add some \$20 to the monthly customer charge -- would violate standard notions of “just and reasonable.”

**Q. On the page that followed, Mr. Higgins concluded that to employ a rate design mechanism (e.g., the CET) to shift risk to ratepayers would be an “unwarranted change in ratemaking philosophy. . . .” He arrived at that conclusion by inferring from some prior Commission language which asserted that it is “the job of the utility’s management to cope with normal business hazards and the operation of economic forces.” Do you agree with Mr. Higgins on this point?**

A. In a practical sense it would be unwarranted change in regulatory philosophy only if this Commission, or its appellate body, refused to endorse it. But as an economist, I would say that declining average usage constitutes more of a certainty than a risk in the sense that the long-term trend of declining average consumption concurrent with costs having increased is very well established.  But whether you call the declining usage phenomenon a relative certainty, a risk, a business hazard, or the consequence of economic forces, prudent management is obligated to deal with it as best that it can. Towards that end, three obvious alternatives present themselves: a) frequent forecasted-test-period rate cases; b) substantially larger customer charges (e.g., \$25

rather than \$5); and c) the CET. I would aver that considering both the cost of capital and the conservation advantages of the CET to ratepayers, we could do far worse than having the CET alternative being the adopted one.

#### IV. SURREBUTTAL IN RESPONSE TO DR. DAVID DISMUKES' INITIAL REBUTTAL TESTIMONY

**Q. Let's now turn to the Direct Testimony filed by Dr. David Dismukes on behalf of the Utah Committee of Consumer Services. Most of his complaints were also raised by Ms. Wolf and Mr. Higgins, so we won't go back over that material. Much of the rest of his testimony revolved around DSM. Since you hardly touched that subject in your Direct Testimony, we won't go into it either – except to say that most of Dr. Dismukes' DSM concerns will not be relevant until we have an actual DSM docket, with specific program proposals. That leaves us with only a couple of items. The first matter appears in two places, page 6 (lines 123-128) and pages 40 and 41 (lines 918-922). I'll quote the former passage:**

**In effect, the [CET] revenue decoupling process makes a utility indifferent between collecting DNG [distribution non-gas] revenues through fixed or variable charges. The process is similar in many ways to loading total DNG revenue requirements into a fixed charge since customers are no longer able to avoid any portion of the DNG revenue requirement through reduced usage.**

**Do you agree with all of that?**

**A.** I agree with the first sentence in your quotation, but the second may give the reader an inaccurate understanding of how the CET is designed to work. In the latter regard, one must be careful to distinguish between the effects of the behavior of the aggregate and the behavior of individuals. Allow a simple numerical example. Say that the average (i.e., aggregate) amount of consumption is reduced in year 1 by 2%. Under the CET, the DNG portion of the rate will go up in year 2 by 2%. (Recall that the DNG charge represents only approximately 20% of the variable charge for GS-1.) It is true that if customer A's year 2 usage also falls by 2%, the DNG portion of his bill will remain the same as in the previous year. The 2% reduction in consumption will have offset the 2% increase in the DNG rate. *But if customer A does not reduce his usage by the 2% amount, his DNG bill will go up by 2% from what it was in the previous year. The upshot is that by reducing his consumption by 2%, customer A will save 2% in DNG charges from what they would have been had he not reduced his consumption.* In other words, under the CET there is still a direct connection between usage and billings. Contrary to Dr. Dismukes' cited statement: "customers are ... [still] able to avoid ... [a] portion of the DNG revenue requirement through reduced usage." Furthermore, by virtue of DNG costs being collected through a volumetric charge rather than a fixed, i.e., customer, charge, customers who reduce their consumption levels will be able to save more on their

total bills than if DNG costs were recovered through a fixed charge. This latter, conservation-preserving aspect of the CET decoupling mechanism (as opposed to using an enlarged customer charge) is a major factor behind the Division's, and Utah Clean Energy's, support for the CET.

**Q. Dr. Dismukes also points out (pp. 33-35) that the CET not only adjusts DNG rates upwards when DSM programs reduce consumption, but also when economic downturns reduce average consumption. He avers that a utility should not be spared the latter kind of revenue risks. Do you agree?**

A. I agree that it is commonplace for utilities to bear such risks. But whether or to what extent Questar should do so is a policy decision for this Commission. Actually, under the proposed CET Questar would still bear most of the risk associated with an economic downturn. That is because the immediate and direct effect of the downturn would be in the industrial sector – with the attendant production cut-backs. Since the CET only applies to the GS class, and since industrial customers are in the high load-factor F classes,  Questar will simply lose the DNG revenues associated with the loss of the F-class/industrial sales that would be the primary byproduct of an economic downturn.

In any event, when the DPU weighed this matter, the trade-off was between a) simplicity, with greater risk-shifting to customers, and b) tremendously complicating the CET mechanism so as to *attempt* (i.e, not necessarily successfully or accurately) to isolate general and local economic conditions from the effects of price elasticity and ongoing gas consumption technology/efficiency improvements. Obviously, in this case we are commending simplicity – a well-recognized regulatory objective.

**Q. One last question. One might get the general impression from the testimony filed in opposition to the CET that by its risk reduction the utility is virtually assured of achieving its desired level of profits, thereby reducing, if not eliminating, its efficiency incentives. Would you please address this matter?**

A. Certainly. Recall the rudimentary definition of profits as revenues minus costs. With prices set by the Commission, a utility has almost no control over its revenues. Where there is the possibility of control and influencing efficiency is in the cost realm. Since the CET only works on the revenues portion of the equation, as a general rule the incentive of Questar to minimize costs and foster economic efficiency would not be disturbed.

**Q. Your last point runs counter to the following assertion of Dr. Dismukes: “A growing utility, with an increasing customer base, and fixed revenues per customer, would have some incentive to put the brakes on cost efficiency if it saw its earnings progressing [as facilitated by the CET]...” Please respond.**

A. First, given generally increasing costs (due to general inflation and the fact that new customers must generally be served by new plant while existing customers are served from depreciated plant), it can't be said that a “growing utility, with an increasing customer base” will automatically experience growing profits in the absence of repeated general rate reductions. To the contrary, and as discussed earlier, with an average-revenues-based CET, and with incremental infrastructure costs exceeding average costs, growth will lead to a deterioration in earnings – although, admittedly, the CET may slow down that deterioration. Because of the



relationship between incremental infrastructure costs and average embedded costs, under the CET a *non*-growing utility, with a static customer base is more likely to see its earnings progressing than would a growing utility. But more to the point, basic regulatory theory holds that due to regulatory lag a utility can reap supra-authorized profits for a long enough period to incent it to, accordingly, go ahead and cut its costs insofar as it is capable of so doing. Furthermore, it will reap the public relations and other benefits of a general rates reduction when in due time regulation succeeds in instigating such. Also, cutting costs in the short run provides a cushion against unforeseeable factors occurring later in time that would drive up costs and prevent the utility from earning its target rate of return.

**V. SURREBUTTAL IN RESPONSE TO DR. DAVID DISMUKES’  
SUPPLEMENTAL REBUTTAL TESTIMONY**

**Q. On pages 11 through 17, Dr. Dismukes discusses the relationships surrounding net earnings and sales to existing customers, sales to new customers, and the net utility plant requirements of new customers. The numerical relationships for the years 2001 through 2005 are shown in summary form on Page 1 of his Exhibit CCS-2.9. Did you find anything remarkable about his numerical observations?**

A. I was confused for some time because of the way he disaggregated his material.

**Q. Please explain.**

A. If you turn to the cited exhibit page, the first empirical observation was how the change in “Use per Customer” affected the return on equity (ROE). There was nothing terribly unusual there.  As I noted elsewhere, since the DNG costs of serving existing customers are basically fixed, changes in their use has a direct effect on net revenues. The next observation was the ROE impact of the “Change in Customers.” The impact was shown to be positive. That conclusion was also reflected in the text of the Dismukes testimony (page 12). Knowing that new customers bring with them very substantial cost, it has been my understanding that the ROE impact of a change in the number of customers would be negative. Needless to say, I was extremely curious as to how Dr. Dismukes could come up with the opposite conclusion.

This is where his disaggregation comes in. The positive benefit presented by Dr. Dismukes is true in a narrow sense *if one only looks at the new revenues separate from the cost impact of adding the customers* which generated those new revenues. But then all you have is the simple truism that, all else equal (i.e., ignoring the added costs), adding revenues enhances net revenues.

But when one is referring to *net* revenues and the effects of some event on ROE, one must be mindful of any change in costs that attends a change in revenues following that event. The very next line in that exhibit (in bold, actually) shows that, indeed, the “ROE Impact [of the observed] Change in Expenses[,] Rate Base and Capital Elements” – which largely comes from adding new customers -- is sufficiently negative to overwhelm not only the benefits of adding new customers but also the gain in the year (2003) when usage per customer

went up. Since Dr. Dismukes acknowledges (page 16, lines 352 and 353) that “The problem [i.e., of a failure to earn the authorized ROE], if there is one, appears to be associated with the cost of providing service to these new customers,” and calculates (lines 357- 360) that per-customer incremental plant is almost twice the embedded average,  I find it somewhat curious that Dr. Dismukes would not attempt to combine the effects of both the new revenues and the new costs when he assesses the impact of new customers on net revenues and Questar’s ROE. In a net revenue context, neither incremental revenues nor incremental costs make sense when viewed apart from each other. But having said that, and to Dr. Dismukes’ credit, it is undeniably difficult to fully and accurately separate out the investments and other cost increases owing to adding new customers versus the cost increases owing to system upgrades that would have occurred anyway.

**Q. Having isolated the biggest single factor affecting Questar’s net revenues (i.e., adding plant largely to accommodate new customers yields incremental costs which exceed the incremental revenues from those customers), what conclusion does Dr. Dismukes draw?**

A. Surprisingly, he claims (lines 365 - 368), “The Joint Applicants are attempting to use a demand-related regulatory adjustment mechanism, historically used to support conservation, as a means to solve a cost-related [both emphases his] problem (having nothing to do with DSM).” He goes on to say (lines 371 373), “Decoupling should be used as a mechanism for promoting DSM, rather than making earnings corrections caused by the cost of adding new customers.”

**Q. Why the surprise?**

A. Dr. Dismukes makes the dubious inferential leap from the facts that a) Questar has a “problem,” i.e., rising average costs from adding customers, and b) that Questar is asking for something, i.e., CET decoupling, to draw the conclusion that Questar (joined by the other co-applicants) must be asking for the CET in order to deal with the rising cost problem. That is absurd. The CET does not adjust rates upwards in response to increasing costs. At best, all that the CET does is keep average revenues from declining in an environment where average costs are climbing and new customers’ usage is below the existing average. The over-riding purpose of the CET (as joined by all three co-applicants) is in fact as it has been stated, i.e., to “support conservation” and to stabilize revenues in the context of declining sales due to conservation. Dealing with rising costs due to the need to install expensive plant to accommodate new customers is an entirely different dimension, outside the purview of this case.

**Q. One last issue: on pages 24 through 26, Dr. Dismukes observes that if per-customer use is declining, it is doing so in a statistically non-significant manner. Comment?**

A. If there is no longer a declining use trend, but use that can randomly go up or down in a given year, then the CET can’t be expected to lead to a net rate increase over the long run. Aside from possibly adding a small element of rates volatility, the CET could not be argued as harming anyone. If the only way under such circumstances that significant additional conservation can take place would be through DSM programs, then the

Committee's stated desire to achieve a DSM-targeted form of decoupling would – de facto – be accomplished with the proposed CET.

**Q. Does that conclude your testimony?**

A. It does. As I stated at the beginning of this testimony, Dr. Artie Powell and Mr. Barrie McKay are filing testimony addressing the alternative de-coupling and DSM-triggered proposals that appear in Dr. Dismukes' rebuttal testimonies. Dr. Dismukes' points regarding violations of general utility rate regulation principles that were made by other witnesses have been discussed elsewhere in this testimony. Others of his points were addressed in the responses to the Commission Staff's questions that comprise Exhibit No. DPU 2.1 SR.