

Exhibit No.:

Issue(s):

Witness/Type of Exhibit:

Sponsoring Party:

Case No.:

Aquila Fixed Bill Proposal

Kind/Rebuttal

Public Counsel

EO-2007-0395

**REBUTTAL TESTIMONY**

**OF**

**RYAN KIND**

Submitted on Behalf of  
the Office of the Public Counsel

**AQUILA, INC. D/B/A AQUILA NETWORKS-MPS  
AND AQUILA NETWORKS-L&P**

**Case No. EO-2007-0395**

October 2, 2007

OPC Exhibit No. 4  
Case No(s). EO-2007-0395  
Date 11-16-07 Rptr RF



**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

In the Matter of Aquila, Inc. d/b/a Aquila Networks-MPS   )  
and L&P for authority to file tariffs offering electric   )  
Customers a Fixed Bill Pilot Program in the Aquila       )  
Networks-MPS and L&P area.                                    )

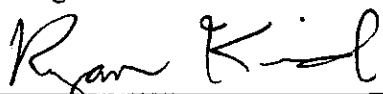
**Case No. EO-2007-0395**

**AFFIDAVIT OF RYAN KIND**

STATE OF MISSOURI    )  
                              ) ss  
COUNTY OF COLE     )

Ryan Kind, of lawful age and being first duly sworn, deposes and states:


1. My name is Ryan Kind. I am a Chief Utility Economist for the Office of the Public Counsel.
2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony.
3. I hereby swear and affirm that my statements contained in the attached affidavit are true and correct to the best of my knowledge and belief.

  
\_\_\_\_\_  
Ryan Kind

Subscribed and sworn to me this 2<sup>nd</sup> day of October 2007.



JERENE A. BUCKMAN  
My Commission Expires  
August 10, 2009  
Cole County  
Commission #05754036

  
\_\_\_\_\_  
Jerene A. Buckman  
Notary Public

My commission expires August 10, 2009.



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Rebuttal Testimony of  
Ryan Kind

1 Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE THIS COMMISSION?

2 A. Yes, prior to this case I submitted written testimony in: numerous gas rate cases, several  
3 electric rate design cases and rate cases, as well as other miscellaneous gas, electric, and  
4 telephone cases.

5 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

6 A. The purpose of this testimony is to inform the Commission about the many regulatory  
7 policy and legal concerns that the Public Counsel has with Aquila's new fixed bill  
8 program proposal. The OPC concerns addressed in this testimony include the following  
9 issues associated with the request by Aquila, Inc. ("Aquila" or "Company") to make  
10 several substantial changes to the manner in which the fixed bill program is offered and  
11 to expand the offering to cover all of its Missouri service territory:

12 1) Aquila is proposing to offer the fixed bill program to almost all of its residential  
13 customers despite the very large load building impacts that this will create at the  
14 same time that it claims to be embarking on a series of energy conservation initiatives  
15 that will be funded by customers through the demand-side management (DSM)  
16 deferral account that was authorized recently in Case No. ER-2007-0004.

17 2) Aquila seeks to turn the existing fixed bill pilot into a source of non-regulated  
18 earnings by changing the program to a non-regulated "competitive" offer with  
19 proposed "below the line" accounting treatment. Not surprisingly, at the same time  
20 Aquila is proposing "below the line" accounting treatment, Aquila is proposing major  
21 increases in the program fees that customers will be charged for participating in the  
22 program.



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- 1           3) While Aquila has proposed a means to provide shareholders with enhanced earnings,  
2           it has not addressed how it will protect the majority of ratepayers who will not choose  
3           to participate in the program from being harmed as it is expanded from serving about  
4           1,000 customers to serving tens of thousands of additional customers.
- 5           4) By filing its proposal outside of a rate case, Aquila is attempting to change rates and  
6           its overall level of earnings on a "single issue" basis without consideration of all  
7           relevant factors.
- 8           5) Aquila's tariff effectively removes the Commission from being able to exercise its  
9           duty to ensure that all rates are just and reasonable since the Company would be  
10          empowered to exercise discretion in setting the level of rates that are charged to fixed  
11          bill participants depending on its assessment of the "expected energy price structure",  
12          the "expected annual energy consumption" and amount that it believes is appropriate  
13          to include in the "risk fee" percentage adder. As part of approving similar programs  
14          in Indiana, the Indiana Utility Regulatory Commission (Indiana Commission) made  
15          use of specific provisions in Indiana Statutes that authorized it to decline to exercise  
16          its jurisdiction based on a determination that doing so is in the public interest.
- 17          6) At least three Commission rules (the Affiliate Transactions rule (4 CSR 240-20.015),  
18          the Utility Promotional Practices rule (4 CSR 240-14), and the Electric Utility  
19          Resource Planning rule (4 CSR 240-22) are implicated by Aquila's proposal and the  
20          Company has failed to adequately address compliance with the relevant provisions of  
21          any of these rules.
- 22          7) There are also a number of issues related to specific tariff language and the manner in  
23          which Aquila intends to market this program to its customers.



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1 Q. HOW DOES A FIXED BILL PROGRAM FOR A REGULATED ELECTRIC UTILITY TYPICALLY  
2 OPERATE?

3 A. The utility sends a fixed bill offer to its qualified customers. Utilities generally exclude  
4 customers with credit problems and those with erratic usage patterns of insufficient usage  
5 histories.

6 The first step in calculating the offer is to determine the individual customer's weather  
7 normalized kWh usage. This normalized amount is then increased by a consumer growth  
8 factor that is an estimate of the amount of growth in consumption is expected to occur  
9 when there is no explicit price signal associated with consuming each additional kWh and  
10 no true-up at the end of the year to adjust for higher levels of consumption. The  
11 normalized and growth adjusted consumption amount is then multiplied times the  
12 expected base rates and any riders that will be in effect for the coming year. The  
13 customer charges and a risk premium are also added to the annual bill amount. The risk  
14 premium is intended to protect the utility from differences between the normalized and  
15 growth adjusted consumption amount and the amount of consumption that actually  
16 occurs.

17 Q. DO FIXED BILL OFFERS GENERALLY RAISE THE RISK FOR A UTILITY THAT ITS ACTUAL  
18 RATE REVENUES WILL DIFFER SUBSTANTIALLY FROM ITS COMMISSION AUTHORIZED  
19 REVENUES?

20 A. No, Especially when risk is viewed from the perspective of the entire portfolio of rate  
21 designs that the utility is using to collect revenues. Viewed from this perspective, fixed  
22 bill programs (in combination with traditional volumetric rate designs) act as a natural  
23 hedge against revenue and earnings fluctuations that can result from weather variations.  
24 When weather is milder than normal, fixed bill revenues will provide a hedge against



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1 revenue and earnings erosion for the portion of customers with fixed bills. Conversely,  
2 when weather is more extreme than normal, then the increased revenues that the utility is  
3 receiving from customers who are not on fixed bills will more than offset any decline in  
4 revenues from fixed bill customers during the same time period.

5 This "natural hedge" phenomenon is illustrated graphically on page 13 of a February 27,  
6 2007 PowerPoint presentation (See Attachment 1) given by Michael T. O'Sheasy (the  
7 Vice President of Christensen Associates and one of the foremost proponents of fixed bill  
8 programs) at a conference on "Electricity Pricing in Continuously Changing  
9 Environments) that was co-sponsored by Christensen Associates and Electric Utility  
10 Consultants, Inc. (EUCI). As page 13 of this presentation indicates, the extent to which  
11 seasonal profits vary with departures from normal heating degree days (HDD) or cooling  
12 degree days (CDD) is mitigated by having a pricing portfolio that includes both standard  
13 tariff rates and fixed bill pricing. Of course, this raises the questions of (1) why utilities  
14 should be adding a risk premium to fixed bill customer's charges when those customers  
15 are actually benefiting the utility by providing a "natural hedge" and (2) why a fixed bill  
16 program proposal should be considered in isolation outside of a general rate case where  
17 all relevant factors such as changes in the risk profile of the utility can be taken into  
18 account in setting just and reasonable rates.

19 Q. WHAT LEVEL OF CUSTOMER PARTICIPATION OR "TAKE RATE" IS USUALLY EXPECTED IN  
20 A FIXED BILL PROGRAM?

21 A. Fixed bill programs appeal to a relatively small segment of customers and generally see  
22 customer participation rates in the range of 5 to 10%.



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1 Q. LET'S TURN NOW TO THE LIST OF OPC CONCERNS THAT WERE LISTED EARLIER IN  
2 YOUR TESTIMONY. PLEASE EXPLAIN THE CONCERN ABOUT THE LOAD BUILDING  
3 IMPACTS OF THIS PROGRAM AT A TIME WHEN THERE IS INCREASED INTEREST AT BOTH  
4 THE NATIONAL AND THE STATE LEVEL TO FOCUS ON CONSERVING ENERGY.

5 A. The upsurge in interest in utility sponsored energy efficiency programs that has occurred  
6 nationwide and in Missouri over the last couple years is truly impressive. Within the last  
7 three years, this Commission has approved energy efficiency programs and program cost  
8 recovery mechanisms for most of the regulated gas and electric utilities, including  
9 Aquila. In early September, the Missouri Legislature held a well attended joint hearing  
10 on energy efficiency and an energy efficiency community forum was held in Kansas City  
11 that attracted over 500 participants. AmerenUE has plans to hold energy efficiency  
12 forums in St. Louis, Cape Girardeau, and Jefferson City in mid-October. At the national  
13 and regional levels, the "National Action Plan For Energy Efficiency" was developed  
14 during 2006 and the Organization of MISO States (OMS) began its Midwest Demand  
15 Resources Initiative (MWDRI) to promote energy efficiency and demand response at  
16 about the same time.

17 Q. DOES AQUILA HAVE PLANS TO IMPLEMENT AN EXTENSIVE PORTFOLIO OF ENERGY  
18 EFFICIENCY PROGRAMS?

19 A. Yes. In its recent IRP filing in Case No. EO-2007-0298, Aquila has proposed a large  
20 portfolio of residential, commercial and industrial DSM programs. Aquila is just now  
21 starting to implement the first of these programs, the Residential Lighting Program,  
22 pursuant to a tariff that the Commission approved in Case No. EO-2008-0050 on  
23 September 13, 2007 in an order entitled "Order Granting Motion For Expedited  
24 Treatment And Approving Tariff Sheets." In the Program Description for the Residential  
25 Lighting Program (Lighting Program Description) that Aquila filed in Case No. EO-



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1 2008-0050 on August 28, 2007, Aquila indicated that it expected the program to reduce  
2 its customer loads by 13,185,742 kWhs over a five year period (See Lighting Program  
3 Description, page 2) at a cost of \$508,600 (See Attachment 2 for this calculation).

4 Unfortunately, Aquila estimates that the majority of the kWh savings that are achieved by  
5 its Residential Lighting Program over a five year period will be lost in just the **first** year  
6 of the Company's proposed fixed bill "pilot" program. Aquila's response to OPC DR No.  
7 2052 (see Attachment 3) shows that the "first year impact" of "Increased Usage by  
8 Customers Selecting Fixed Bill" (shown in Line 10 on the second page of Attachment 3)  
9 is expected to be 9,416 MWhs (9,416,000 kWhs). Since 9,416,000 kWhs is 71.46% of  
10 13,185,742 kWhs (See Attachment 2 for this calculation) Aquila is projecting that well  
11 over 2/3 of the savings achieved by the Residential Lighting Program during its first five  
12 years of operation will be wiped out by the load growth expected from just the first year  
13 of the expanded fixed bill program!

14 Public Counsel is frankly dumbfounded to find that Aquila would be seeking to promote  
15 a program that will undo the savings that it expects to achieve from its new energy  
16 efficiency programs. Why would consumers want to pay half a million dollars to support  
17 a utility's energy efficiency program when the same utility is promoting a load building  
18 program that will take back the conservation benefits in an effort to enhance its non-  
19 regulated earnings?

20 Q. Do you have any further comments regarding Aquila's response to OPC DR No. 2052?

21 A. Yes. First of all, at the bottom of the second page of this DR response, Aquila asserts  
22 that the load impacts are "largely off-peak" but they have not provided any quantitative  
23 analysis to support this assertion. Utility's that propose fixed bill type programs often try  
24 to minimize the load building impacts by asserting that the impacts are either completely  
25 or mostly off-peak. In today's environment, it's difficult to see why load growth of any



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1 type would be beneficial from a customer perspective especially for a utility like Aquila  
2 that is extremely short on the supply-side resources that will be needed to serve the  
3 growing needs of its customers over the next 10 years. Aquila's response to OPC DR No.  
4 2048 (see Attachment 4) shows on the third page of the response that its shortfall of  
5 generating capacity ranges from a low of 244.9 MWs in 2010 (when Iatan 2 is expected  
6 to go on line) to a high of 799.5 MWs in 2017. Given Aquila's chronic shortage of  
7 intermediate and baseload generation resources in recent times, it can be assumed that  
8 Aquila will also have a significant shortage of reasonably priced energy to serve its  
9 customers needs over the next 10 years. Of course, as some type of carbon regulation  
10 becomes increasing likely, it will become more and more important to reduce off peak  
11 energy usage as well as peak demands in order to hold down the costs of serving electric  
12 customers since off-peak loads are generally served by carbon-intensive coal generating  
13 units.

14 On line 11 of the second page of Aquila's response to OPC DR No. 2052, Aquila shows  
15 that the fixed bill program is expected to increase its system-wide MWh usage by .18 per  
16 cent. This figure was calculated by dividing line 10 by line 1. A similar calculation can be  
17 performed to show the expected incremental load growth to the residential class by  
18 dividing line 10 by line 2. This calculation  $9416 \text{ MWh} / 2,428,634\text{s}$  shows that the fixed  
19 bill program is expected to increase load growth for the residential class by .386% in the  
20 first year of the program. This increased load growth for the residential class would occur  
21 on top of the already high load growth that Aquila is experiencing for residential  
22 customers. According to the load growth projections in Aquila's most recent IRP filing in  
23 Case No. EO-2007-0298, Aquila's load is expected to grow at an average rate of 2.5%  
24 over the next 20 years. When the expected growth for the residential class of .386%, the  
25 total load growth for the residential class would increase from about 2.5% to 2.86% when  
26 the full load growth impacts of the first year of implementation are taken into account.



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1 This is an astounding amount of increase to an already high level of load growth for the  
2 residential class!

3 The many implications of this load growth, including the substantial potential detrimental  
4 impact on non-participants in the fixed bill program are address later in this testimony.  
5 Not surprisingly, Aquila attempts to minimize the impacts of this load growth as  
6 "minimal." Aquila's response to OPC DR No. 2053 (See Attachment 5) stated "as  
7 demonstrated in Aquila's response to OPC DR No. 2052, the projected usage impacts of  
8 this program are minimal and..."

9 Q. HAVE YOU HEARD ANY COMMENTS FROM MISSOURI COMMISSIONERS ABOUT HOW  
10 RATE DESIGN CAN HAVE ADVERSE IMPACTS ON THE LEVEL OF ENERGY CONSERVATION  
11 THAT TAKES PLACE IN MISSOURI?

12 A. Yes. The issue of declining block rates and the reduced price signal that this provides to  
13 consumers about using more energy has been raised from time to time. This issue was  
14 recently addressed by Chairman Davis in response to a question that he received after  
15 giving his prepared remarks to a joint hearing of the House Special Committee on Energy  
16 and Environment and the House Special Committee on Utilities on September 13, 2007.  
17 At this joint hearing, one of the committee members asked Chairman Davis why he  
18 believed the usage per customer in Missouri tended to be higher than it is in most other  
19 states. In his response, Chairman Davis cited the Wal-Mart and Sam's type of utility  
20 pricing where "the more you buy, the less you pay" has been one of the factors that has  
21 discouraged energy efficiency in Missouri.

22 Public Counsel believes that the Chairman's observation about past utility pricing  
23 practices has some merit and is somewhat surprised that any utility would now be  
24 proposing the broad application of "all you can eat" (fixed bill) pricing at the same time



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1           that heightened concerns about the increased costs of environmental regulations led the  
2           Missouri Legislature to pass SB 179 which provides for extraordinary ratemaking  
3           treatment of environmental costs incurred by utilities. I wish I could assume that Aquila's  
4           decision to try and expand "all you can eat" pricing to all of its residential customers  
5           meant that it was safe to assume that Aquila does not expect to have a need for the  
6           extraordinary ratemaking measures permitted by SB 179. However, it's probably safer to  
7           assume that Aquila believes that such ratemaking procedures will allow the Company to  
8           shield itself from the adverse financial implications of its reckless pursuit of an expanded  
9           fixed bill program despite its detrimental load building impacts.

10          Q.    Have other state commissions raised concerns about the adverse effects on energy  
11               conservation that arise from the price signal that fixed bill programs give about  
12               increasing consumption of electricity?

13          A.    Yes. About two years ago, the Commonwealth of Kentucky Public Service Commission  
14               (KPSC or Kentucky Commission) denied two fixed bill program proposals largely based  
15               on the "potential impact a fixed bill program could have on energy consumption and  
16               demand." The KPSC's order stated in its May 4, 2005 order in Case No. 2004-00330  
17               (See Attachment 6, page 7) that:

18                       **The issue of greatest concern to the Commission is the potential**  
19                       **impact a fixed bill program could have on energy consumption and**  
20                       **demand.** The limited results of the Gulf Power pilot program, contrary  
21                       to the claims of the Joint Applicants, offer little comfort on this matter.  
22                       An 8 percent increase in energy usage is much greater than what  
23                       typically occurs due to normal growth. Particularly with East  
24                       Kentucky's fuel costs increasing substantially in recent years, the merits  
25                       of attempting to increase customer satisfaction by implementing a  
26                       program that encourages customers to use more electricity, without  
27                       sending proper pricing signals, are questionable. (Emphasis added)



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1 In that same order the Kentucky Commission also addressed the questionable reasoning  
2 of initiating a fixed bill program for a utility that is facing substantial needs for additional  
3 generation resources where it stated on pages 7 and 8 of the order that:

4 The Commission takes administrative notice that East Kentucky  
5 currently has two cases pending to construct a total of over 950 Mw of  
6 capacity at a cost in excess of \$1.35 billion. This makes it highly  
7 questionable for East Kentucky to pursue a billing program that removes  
8 the link between the quantity of electricity that customers use and the  
9 cost of that electricity. With the impact of East Kentucky's recently  
10 approved environmental surcharge expected to increase customers' bills  
11 this summer, and with the forecast of a need for an additional rate  
12 increase later this decade to recover the cost of new capacity, East  
13 Kentucky's interest in pursuing a fixed bill program does not appear to  
14 be well founded.

15 In the next paragraph of the Cause No. 2004-00330 order, the Kentucky Commission  
16 outlined some of the important issues that must be addressed in determining whether a  
17 proposed fixed bill program should be approved where it stated:

18 Although the Joint Applicants point to the small size of the proposed  
19 pilot, it is the Commission's sense that **a fixed bill program should not**  
20 **be pursued, regardless of its size, unless:** (1) there is clear evidence of  
21 a demand for the program that cannot otherwise be addressed; and (2)  
22 **meaningful results of other programs are available which**  
23 **demonstrate that the likely outcome will not adversely impact**  
24 **customers, in the short-run or the long-run, by creating a need for**  
25 **additional capacity or by increasing the utility's costs or reducing its**  
26 **revenues.** (Emphasis added)

27 OPC agrees with the KPSC about the burden of proof that a utility must satisfy in order  
28 to demonstrate that a fixed bill program should be given the green light to proceed by a  
29 regulatory commission. Aquila has not performed the resource planning analysis that  
30 would be required (and is required by section 4 CSR 240-22.060(5) of the Missouri  
31 Electric Utility Resource Planning rule) to determine that its proposal is not likely to  
32 adversely impact customers. Regarding the first item referenced in the quote above, the  
33 KPSC made the insightful finding on page 6 of its order that:



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Based on the evidence of record and being otherwise sufficiently advised, the Commission finds that the Joint Applicants' fixed bill proposal appears to be an extraordinary response to a concern expressed by a limited number of their customers.

Q. YOU STATED THAT THE KENTUCKY COMMISSION DENIED TWO FIXED BILL APPLICATIONS. WAS THE KPSC'S REASONING FOR DENIAL OF THE SECOND APPLICATION SIMILAR TO THE REASONS THAT IT CITED IN THE FIRST DENIAL?

A. Yes, the reasons cited for denial in the two applications were quite similar although the first application involved a joint application of electric cooperatives and the second application for fixed bill program approval came from an investor-owned utility, the Union Light, Heat and Power Company (ULH&P). The Kentucky Commission issued its order regarding the second application in Case No. 2004-00503 on October 26, 2005 (See Attachment 7). While the KPSC's reasoning in this second order repeated many of the same concerns addressed in the order in Case No. 2004-00330, many of the statements are worth repeating here. On page 9 of its order the Kentucky Commission stated:

An issue of great significance, in the Commission's view, is the potential impact a fixed bill program could have on energy consumption and demand. **The limited results of the Gulf Power pilot program offer little comfort on this issue. An 8 percent increase in energy usage is much greater than what occurs due to typical consumption growth.** (Emphasis added)

The above findings regarding the level of load growth associated with the Gulf Power (a Florida utility) program also appear on page 2 of an order issued by the Florida Public Service Commission (Florida PSC or Florida Commission) on September 27, 2004 in Docket No. 040442-EI where the Florida Commission approved a fixed bill proposal for Gulf Power after the utility agreed to change its proposed ratemaking treatment from below the line treatment to above the line treatment. The Kentucky Commission's order in Case No. 2004-00503 also contained the following strong reasons on page 9 for denying the fixed bill application of ULH&P.



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1 Particularly with ULH&P's electric rate freeze scheduled to expire at the  
2 end of 2006 and with natural gas costs at record levels, **hoping to**  
3 **increase customer satisfaction by implementing a program that**  
4 **could encourage customers to use greater amounts of electricity or**  
5 **natural gas appears to be misguided.** (Emphasis added)

6 ...

7 It is questionable for ULH&P to pursue a program that removes the  
8 customer's direct link between the amount of electricity and natural gas  
9 used and the cost of that usage.

10 Q. HAVE ANY OTHER STATE COMMISSIONS RAISED CONCERNS RECENTLY ABOUT THE  
11 LOAD BUILDING IMPACTS THAT FIXED BILL PROGRAMS TYPICALLY HAVE?

12 A. Yes. The North Carolina Utilities Commission (NCUC or NC Commission) has approved  
13 fixed bill programs for two of its regulated electric utilities, Duke Energy Carolinas  
14 (Duke) and Progress Energy Carolinas (Progress). On August 21, 2007, the NCUC issued  
15 an order in Docket Nos. E-7, Sub 710 and E-2, Sub 847 (see Attachment 8) where it  
16 ordered both Duke and Progress to "file comments and any studies on the impact of these  
17 programs on energy conservation and peak demand not later than September 21, 2007."  
18 This Order mentions several factors that prompted the Commission to initiate this  
19 inquiry. First, the Order notes that in the NCUC's Order Approving Duke's Fixed Bill  
20 Program it had required:

21 That the Public Staff shall monitor, on an ongoing basis, the impact, if  
22 any, that the FPP may have on energy conservation and Duke's system  
23 peak demand and shall make such reports to the Commission as it deems  
24 appropriate.

25 This Order also noted that:

26 On June 8, 2007, Duke filed a request to revise its FPP. In the Public  
27 Staff's agenda item which presented this revision to the Commission for  
28 its consideration, the Public Staff stated that "FPP reports have indicated  
29 that, on average, customers who have enrolled in this Program during the  
30 first couple of years have increased their energy usage and their  
31 contributions to the peak demand at higher levels than a typical  
32 residential customer."



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1 Duke filed its response (see Attachment 9) to the NCUC's "Order Requesting Further  
2 Information" in Docket No. E-7, Sub 710 on September 20, 2007 in which it sought to  
3 provide the information requested by the North Carolina Commission. Duke's response  
4 indicated that 110,653 North Carolina customers currently participate in its Fixed Bill  
5 Program, representing 7.5% of residential customers. On page 4 of its response Duke  
6 indicated that for customers that are in their first year of program participation their usage  
7 grows by an average of 9.3%. On page 5 of its response Duke stated that it had "gathered  
8 data related to the impact of FPP [Fixed Payment Plan] on peak demand." Duke also  
9 stated that "the Company has found that the impact the FPP sample population indicates a  
10 higher usage at time of peak than the control group." Specifically, Duke stated that "in  
11 2004, the FPP sample population showed 31% higher usage than the control group,  
12 which would affect the system peak by .3%" and that "in 2006 the FPP sample  
13 population showed 11% higher usage which would affect the system peak by .2%."  
14 Duke's translation of increases in residential usage to impacts on total system peak  
15 demand failed to reveal the much larger impact that these increases in residential usage  
16 are having on the peak demands of the residential class.

17 Progress also filed its response (see Attachment 10) to the NCUC's "Order Requesting  
18 Further Information" in Docket No. E-2, Sub 847 on September 20, 2007 in which it  
19 sought to provide the information requested by the North Carolina Commission.  
20 Progress had not put the same level of effort into estimating the changes in usage and  
21 peak demand that Duke had. Consequently, the Progress response had very little  
22 information except for the conclusion that the 76,213 customers who were enrolled in the  
23 program for the first year of participation saw an average increase in weather normalized  
24 usage of 6.94% above and beyond the adjustments that were made due to the usage  
25 adder.



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1 Q. DO YOU HAVE ANY ADDITIONAL COMMENTS ABOUT THE LOAD BUILDING ASPECT OF  
2 AQUILA'S PROPOSED EXPANSION OF ITS FIXED BILL PROGRAM?

3 A. The proposed structure for program fees of the fixed bill program reflects Aquila's  
4 expectation that customers that choose the fixed bill option will increase their usage  
5 above the level of usage that occurs under the traditional billing method. Proposed  
6 program fees include a "KWh Growth" factor which is intended to reflect up to 6% of  
7 "additional kWh added to the base WnkWh due to expected average consumption  
8 changes and other growth factors." (See proposed tariff, Revised Sheet No. 118.)  
9 Aquila's response to OPC DR No. 2024 (See attachment 11) acknowledges that one of  
10 the reasons for the "KWh Growth" factor is the "the additional consumption that  
11 constitutes changes in consumption patterns resulting from participation in fixed billing."  
12 In addition, Aquila's response to OPC DR No. 2005 (See attachment 12) shows that  
13 Aquila expects a proposed fixed bill program to result in "Healthy growth mostly off  
14 peak" and "Small peak effects."

15 Q. LET'S RETURN NOW TO THE LIST OF OPC CONCERNS THAT WERE LISTED EARLIER IN  
16 YOUR TESTIMONY. PLEASE EXPLAIN THE SECOND CONCERN ABOUT AQUILA'S  
17 PROPOSAL FOR THE COMMISSION TO APPROVE BELOW THE LINE ACCOUNTING  
18 TREATMENT FOR THIS PROGRAM.

19 A. Aquila's decision to modify its fixed bill program and offer it as a non-regulated service  
20 with below-the-line accounting treatment brings with it the obligation for the Company to  
21 comply with a number of requirements in the Affiliate Transactions rule (4 CSR 240-  
22 20.015) and the Utility Promotional Practices rule (4 CSR 240-14). For example,  
23 subsection (2)(F) of the Affiliate Transactions rule (4 CSR 240-20.015) requires a utility  
24 to clearly advise its customers in all of its marketing communications that this program is



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1 not regulated by the Missouri Commission. OPC asked Aquila whether it intended to do  
2 this in OPC DR No. 2047 and Aquila's response stated that:

3 Aquila views this program as a regulated offering. The tariff under  
4 which this program would be offered would be approved by the Missouri  
5 Public Service Commission, and the charges would be based on currently  
6 effective tariff rates. There are no unregulated business operations  
7 involved in the offering of this program. Because of this we do not  
8 intend to change our marketing collateral to indicate this is a non-  
9 regulated offering.

10 Q. IS IT TRUE THAT "THE CHARGES WOULD BE BASED ON CURRENTLY EFFECTIVE TARIFF  
11 RATES"?

12 A. No. First of all, the proposed tariff only contains caps on the "program fee" and a  
13 formula for calculating monthly bills. There are no rates specified on the fixed bill  
14 program tariff. In addition, the annual fixed bill formula in the tariff includes the item  
15 "energy price" which is defined as the "expected energy price structure..." Given the  
16 definition of this item, Aquila has latitude to calculate bills based not on currently  
17 tariffed rates but on its expectations of future tariffed rates over the year that the annual  
18 bill would cover. In other words, Aquila can make its own assessment of the level of any  
19 general rate increase that it expects to receive in the upcoming year and the level of FAC  
20 charges that will be in effect for the upcoming year and incorporate its expectations into  
21 the annual bill calculation.

22 Q. WHAT OTHER CONCERNS DO YOU HAVE ABOUT THE BELOW THE LINE ACCOUNTING  
23 TREATMENT THAT AQUILA HAS PROPOSED?

24 A. Because of the below-the-line accounting treatment proposed by Aquila, this program is  
25 subject to the provisions of the Affiliate Transactions rule, the purpose of which is "to  
26 prevent regulated utilities from subsidizing their non-regulated operations." In order for



Rebuttal Testimony of  
Ryan Kind

1 the purpose of this rule to be fulfilled with respect to the fixed bill program, Aquila  
2 clearly must comply with the relevant provisions of this rule. But it has completely failed  
3 to address compliance with this rule in the filings that it made in this case. Aquila is  
4 seeking Commission approval in this case for the revenues generated by this program to  
5 be reflected below the line in future rate cases. However, it has not identified all of the  
6 valuable services that would be provided by the regulated portion of Aquila to the  
7 "affiliated entity" (the non-regulated portion of Aquila that will retain the below-the-line  
8 revenues) in order to implement the service and stated how these costs will be determined  
9 or allocated between the regulated entity and affiliated entity. For example, the costs of  
10 customer bill preparation and delivery of the customer billing information that are vital to  
11 the fixed bill offering will be provided by the regulated entity to the non-regulated entity.  
12 These costs must be priced at the higher of cost or market in order to comply with 4 CSR  
13 240-20.015(2)(A)2. In his Direct Testimony in this case, Aquila witness Dennis Odell  
14 admits that the proposed fixed bill program is a "competitive billing option" (page 6) but  
15 there is no description of how the affiliate transactions needed to offer this "competitive  
16 billing option" will be carried out to protect customers of the regulated utility from  
17 subsidizing Aquila's non-regulated operations.

18 If Aquila acknowledges that it is truly seeking to offer this program as a fully non-  
19 regulated service, and if the Commission finds this to be acceptable, then the "proposed  
20 accounting treatment" (i.e., below-the-line treatment) should not be approved because it  
21 does not include a firm commitment to comply with the standards and requirements of  
22 the affiliate transaction rule (4 CSR 240-20.015(2)) designed to protect customers of  
23 regulated utilities from subsidizing non-regulated affiliated entities.

24 Several additional concerns arise from Aquila's proposal to offer fixed billing as a non-  
25 regulated service with below-the-line accounting treatment. With below-the-line  
26 treatment of earning from this program, Aquila will have an incentive to impose high



Rebuttal Testimony of  
Ryan Kind

1           program fees upon those that use the fixed billing option. Participants in the current  
2           fixed-bill pilot program with above-the-line accounting treatment have been charged no  
3           more than a six percent program fee but Aquila is seeking to charge program fees as high  
4           as twelve percent to customers in the expanded program. There are no protections to  
5           insure that customers will not be induced to sign up for the new program through  
6           marketing tactics that take advantage of the limited ability of some utility customers to  
7           fully understand the implications of the choice they are making. Missouri customers  
8           have come to assume that the rates being charged by their utilities are reasonable since  
9           they have been reviewed by the Commission. The latitude that Aquila has for setting its  
10          own charges under the proposed tariff means that this would not be the case.

11        Q.     LET'S RETURN AGAIN TO THE LIST OF OPC CONCERNS THAT WERE LISTED EARLIER IN  
12               YOUR TESTIMONY. PLEASE EXPLAIN THE THIRD CONCERN ABOUT NON-PARTICIPANTS  
13               NOT BEING PROTECTED FROM ANY ADVERSE EFFECTS THAT MAY RESULT FROM THIS  
14               PROGRAM.

15        A.     Two of the Commission's rules (Utility Promotional Practices rule - 4 CSR 240-14 and  
16               the Electric Utility Resource Planning rule - 4 CSR 240-22) contain provisions that are  
17               intended to protect customers from any adverse impacts that may result from utility  
18               initiatives that have load building impacts. 4 CSR 240-22.060(5) contains specific  
19               requirements for the analysis of existing or planned new load building programs that  
20               require the utility to develop estimates of the peak and energy load impacts and to reflect  
21               these impacts in long-term integrated computer analysis to determine the impact on  
22               average rates over the planning horizon. The IRP filing that Aquila made on February 5,  
23               2007 pursuant to 4 CSR 240-22 did not contain the required analysis of the load building  
24               impacts of the fixed bill program so there are no quantitative estimates of the magnitude  
25               of rate increases that will be associated with the proposed fixed bill program. Such



Rebuttal Testimony of  
Ryan Kind

1 estimates are necessary for the Commission to be able to determine whether the proposed  
2 tariff will have adverse rate impacts on Aquila's customers who do not participate in the  
3 program. For example, without this analysis there is no way to estimate the harm to non-  
4 participants from the reduced level of off-system sales margins that will be present to  
5 offset production costs as the loads increase for fixed bill customers and there is no way  
6 to estimate the cost of dispatching more costly generation resources to serve the increased  
7 loads.

8 The other Commission rule that contains provisions that are intended to protect customers  
9 from any adverse impacts that may result from utility initiatives that have load building  
10 impacts is the Utility Promotional Practices rule (4 CSR 240-14). 4 CSR 240-14.020  
11 contains a list of "Prohibited Promotional Practices" which cannot be offered "for the  
12 purpose of inducing any person to...use additional service of the utility." One of the ten  
13 prohibited promotional practices pertains directly to a fixed bill type of service offering.  
14 4 CSR 240-14.020(1)(J) states as follows:

15 (J) The guaranteeing of the maximum cost of electric or gas utility  
16 service, except the guaranteeing of the cost of space heating or cooling  
17 for a single season, when the cost is at or above the cost of providing  
18 service and when the guarantee is for the purpose of improving the  
19 utility's off-peak season load factor.

20 The proposed fixed bill program clearly has the effect of "guaranteeing of the maximum  
21 cost of electric or gas utility service" and is not limited to "a single season," but Aquila  
22 has not requested the waiver from 4 CSR 240-14 that is necessary to offer this type of  
23 program. Aquila's response to OPC DR No. confirmed that it is making this type of  
24 commitment to its fixed bill customers. Given the increasing costs of acquiring  
25 additional supply-side resources, Aquila must make a firm and enforceable commitment  
26 to hold non-participating customers harmless from any adverse load building impacts in  
27 order to show good cause for the granting of a waiver from 4 CSR 240-14.



Rebuttal Testimony of  
Ryan Kind

1 Q. LET'S RETURN AGAIN TO THE LIST OF OPC CONCERNS THAT WERE LISTED EARLIER IN  
2 YOUR TESTIMONY. PLEASE EXPLAIN THE FOURTH CONCERN ABOUT "SINGLE ISSUE  
3 RATEMAKING."

4 A. The proposed tariff sheets seek to turn the monopoly billing function into a non-regulated  
5 profit center where the utility can earn returns above and beyond the level that is  
6 determined to be reasonable in a general rate proceeding. This is, of course, not  
7 consistent with the legal prohibition of "single issue ratemaking." If Aquila wishes to  
8 offer this program as a regulated service offering, then it should propose this program in a  
9 rate case where "all relevant factors" can be taken into account so rates will be set at a  
10 level that is just and reasonable when all relevant factors are taken into account in the  
11 ratemaking process. The relevant factors that must be taken into account would include  
12 any changes in risk, increases in normalized revenues, and expense reductions such as  
13 reduced bad debt expense associated with the fixed bill program. Slide 7 of a PowerPoint  
14 presentation given to Aquila's management (provided in response to OPC DR No. 2005,  
15 and attached to this testimony as Attachment 12) shows that Aquila expects a fixed bill  
16 program to be a "Natural hedge against weather" and result in "Reduced deferral  
17 payments and bad debt expense" and "Manageable risk."

18 Public Counsel has the additional concern that Aquila is seeking to have a single issue  
19 addressed in this case by putting a tariff in effect that will provide a large enhancement to  
20 its non-regulated revenues at the same time that the rates resulting from Aquila's most  
21 recent rate case reflect some of the costs of providing what Aquila now seeks to have  
22 classified as a below the line program. Furthermore, there are equity issues involved with  
23 charging regulated customers for the program development costs of a program that  
24 Aquila is now seeking to turn into a non-regulated profit center. Aquila has not offered to  
25 repay any of these program development costs to customers as part of its proposal to  
26 make this a below the line program.



Rebuttal Testimony of  
Ryan Kind

1 Q. LET'S RETURN AGAIN TO THE LIST OF OPC CONCERNS THAT WERE LISTED EARLIER IN  
2 YOUR TESTIMONY. PLEASE EXPLAIN THE SEVENTH CONCERN ABOUT VARIOUS ISSUES  
3 RELATED TO THE TARIFF.

4 A. Other problematic aspects of the fixed bill proposal that merit further investigation and  
5 review by the Commission include: the excessively long five year "pilot" period for the  
6 expanded fixed bill program, the overly broad expansion of the existing small pilot to a  
7 new pilot with substantial changes that would be available to all eligible residential  
8 Aquila customers in Missouri, the increase on the cap for program fees from an eight  
9 percent cap to a twelve percent cap, insufficient details on how the incremental expenses  
10 associated with the pilot will be tracked, insufficient details on how the new modified  
11 aspects of the pilot would be evaluated, and the lack of a commitment for a full  
12 comprehensive evaluation near the end of the pilot period.

13 While Mr. Odell's testimony states that the consumption adder and the risk adder at 6%  
14 each, no such cap is present in the tariff. Lastly, the idea that a program can be offered to  
15 all eligible Aquila residential customers in Missouri for a five year period and still be  
16 considered a "pilot" renders the term "pilot" virtually meaningless.

17 Q. DO YOU HAVE ANY CONCLUDING REMARKS?

18 A. Yes. Based on OPC's analysis of Aquila's proposed expansion and modification of the  
19 fixed bill program we believe the proposal should be rejected by the Commission because  
20 it is counter to good regulatory policy and fails to comply with a number of relevant rules  
21 and laws. If, contrary to the recommendation of OPC, the Commission decides to  
22 approve this proposal, it should not permit Aquila to have a growth adjustment adder as  
23 part of its tariff because this adder insulates Aquila from the adverse financial impacts of



Rebuttal Testimony of  
Ryan Kind

1           the load growth of fixed bill customers, thereby removing any incentive for Aquila to  
2           take steps to minimize this load growth.

3           Q.     DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

4           A.     Yes.



Kind Rebuttal

Attachment 1





# Fixed Bill

Is Fixed Bill Penetration Approaching the  
“Tipping Point”?

Michael T. O'Sheasy  
Vice President  
Christensen Associates

*February 27, 2007*



# Agenda

- ❑ What is Fixed Bill and Target Market
- ❑ Why offer Fixed Bill
- ❑ Fixed Bill Expectations
- ❑ Product Design and Risk Management
- ❑ Fixed Bill Implementation Issues
- ❑ Additional Fixed Bill Products



# Customer Concerns and The Marketing Need

- ❑ Some customers want to know exactly how much they will be paying for utilities – No Surprises!
- ❑ They want a totally fixed bill with no possible bump or additional, after-the-fact charge when costs are higher than had been expected as found with Budget Billing
- ❑ Many customers dislike their bills for energy subject to the weather
- ❑ They are better able to manage their energy bills if the bills are spread equally over the year rather than spiking in certain months



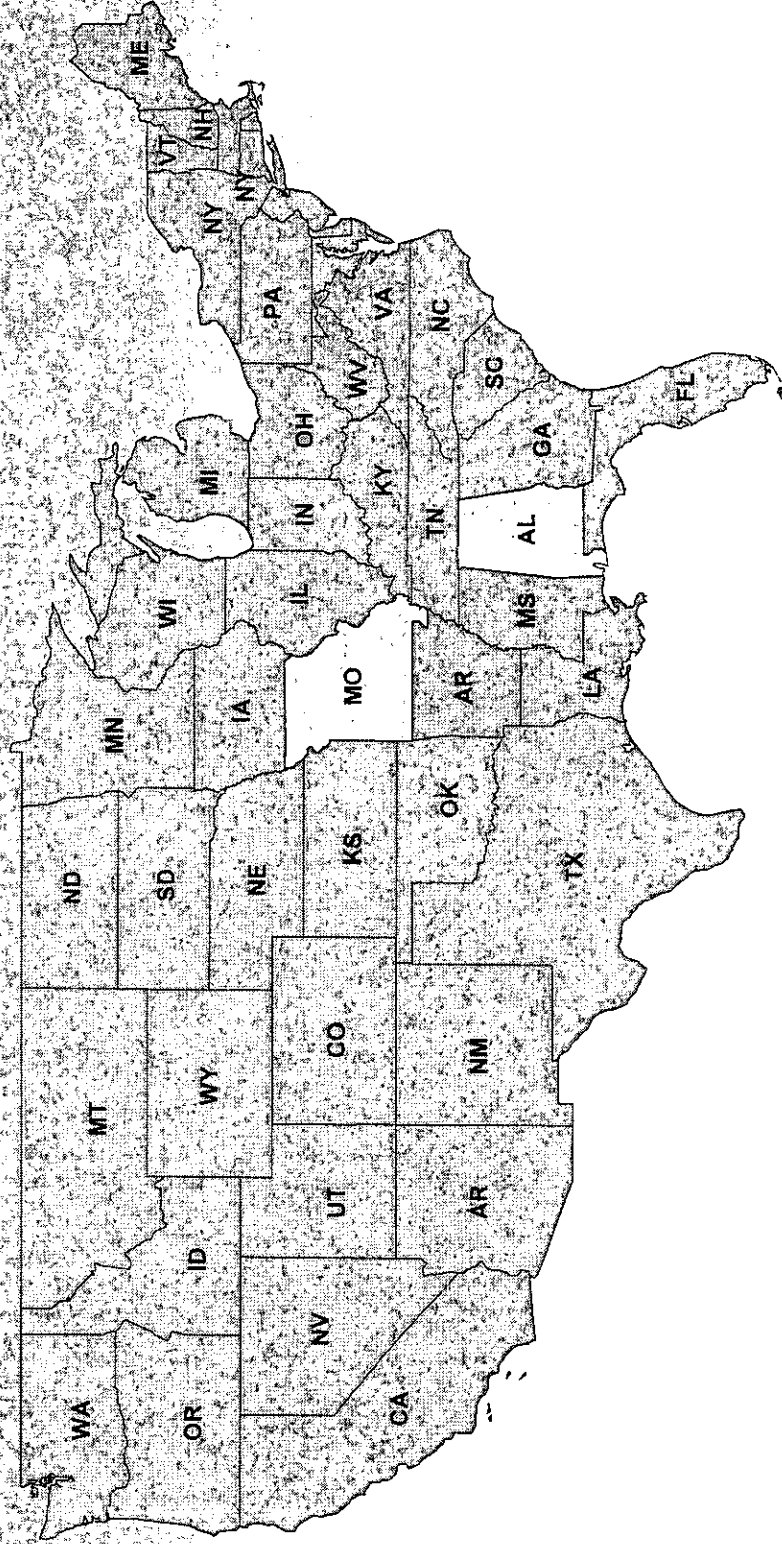
# **Fixed Bill: A Classic Win-Win Product on the Verge of Market Prominence/The "Tipping Point"**

- ❑ Fixed Bill is an exciting and remarkable pricing innovation!
- ❑ Customer is offered a fixed price for an entire billing period regardless of underlying costs and usage changes
- ❑ Conceived through market research directed at mass markets
- ❑ Will capture a large market share AND
- ❑ Provides a healthy return to the provider!



# Electric Utilities Commission

## Approval Status Map



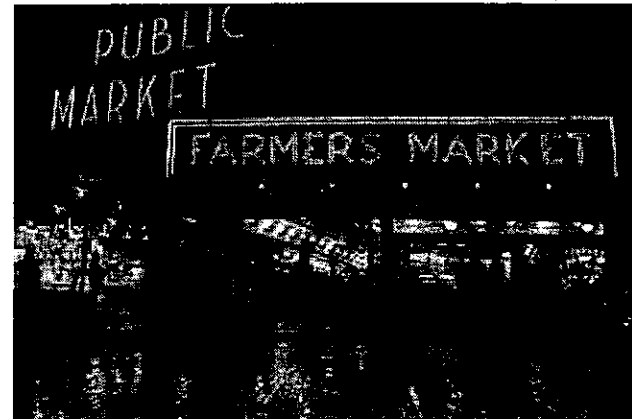
☒ Permanent Fixed Bill Tariff
 ☐ Pilot Fixed Bill Tariff
 ☒ Without Fixed Bill



# Program Design

## Target Customers

- ☐ Residential/small commercial/mid-size business
- ☐ At least one year history at current location
- ☐ Good credit history



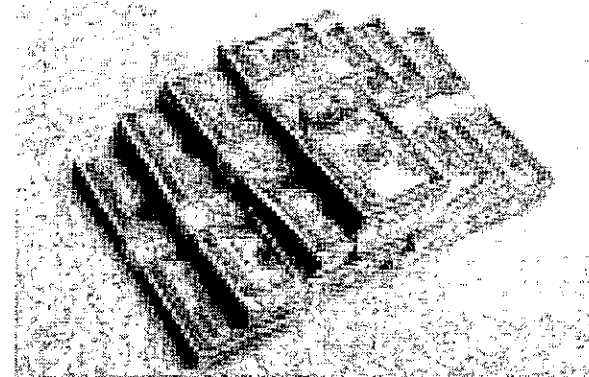


# Why Should Utilities Offer Fixed Bill?

- ❑ Earnings

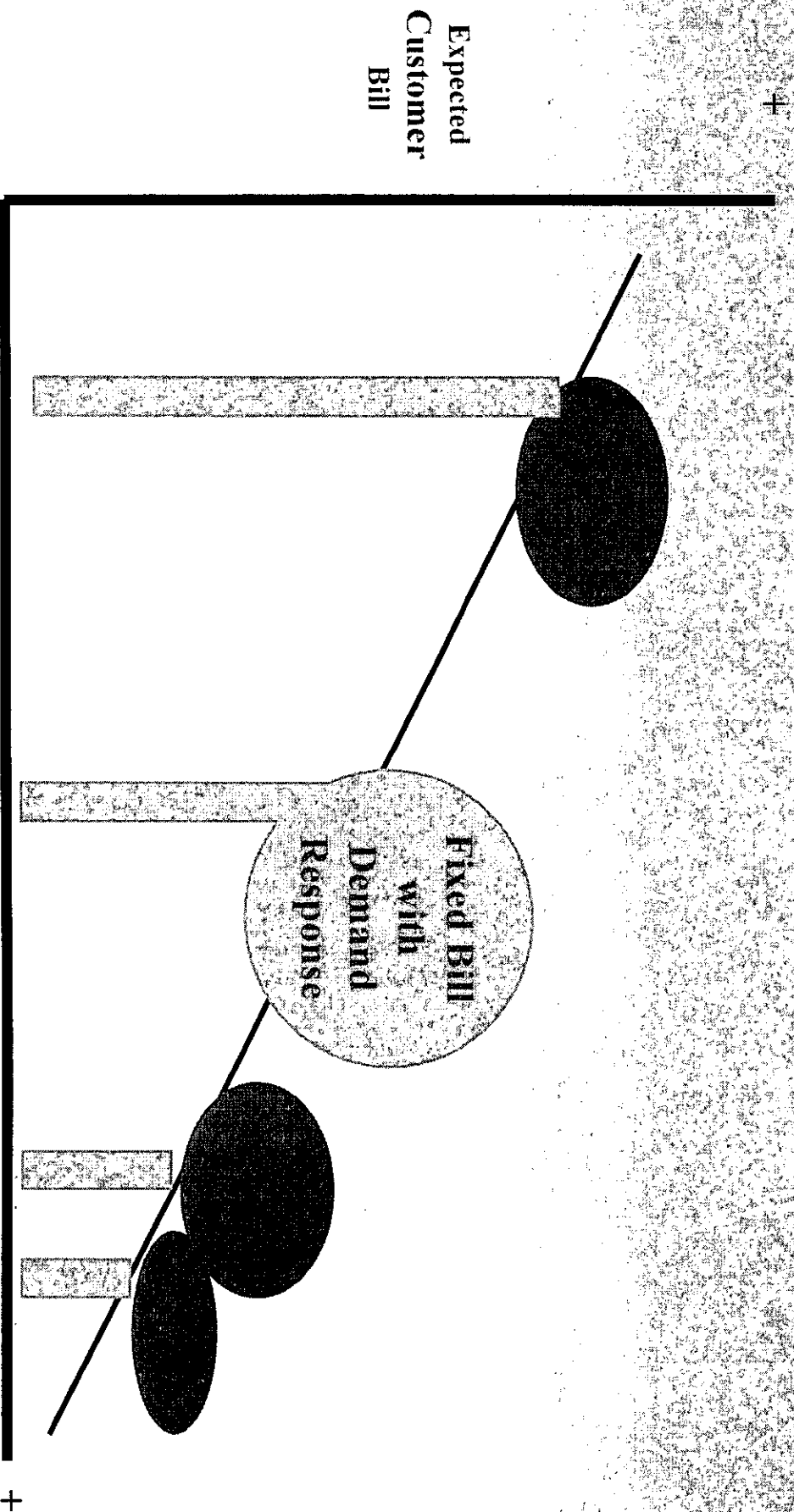
  - + \$1.3m EBIT per every 25,000

- ❑ Pricing product portfolio fit





# Pricing Portfolio and Customer Risk





# Why Offer Fixed Bill?

- ❑ Customer satisfaction
  - High renewal rates
  - Penetration rates of 7-15%

✓ 95% of those surveyed said Flat Bill met/exceeded expectations

✓ 71% of those surveyed said they are very “likely” to renew; 1% “unlikely”

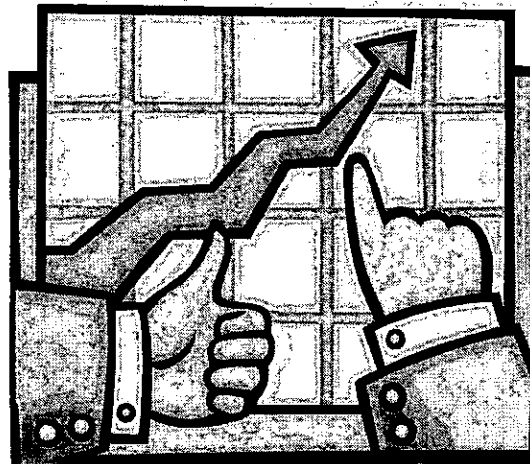




# Why Offer Fixed Bill?

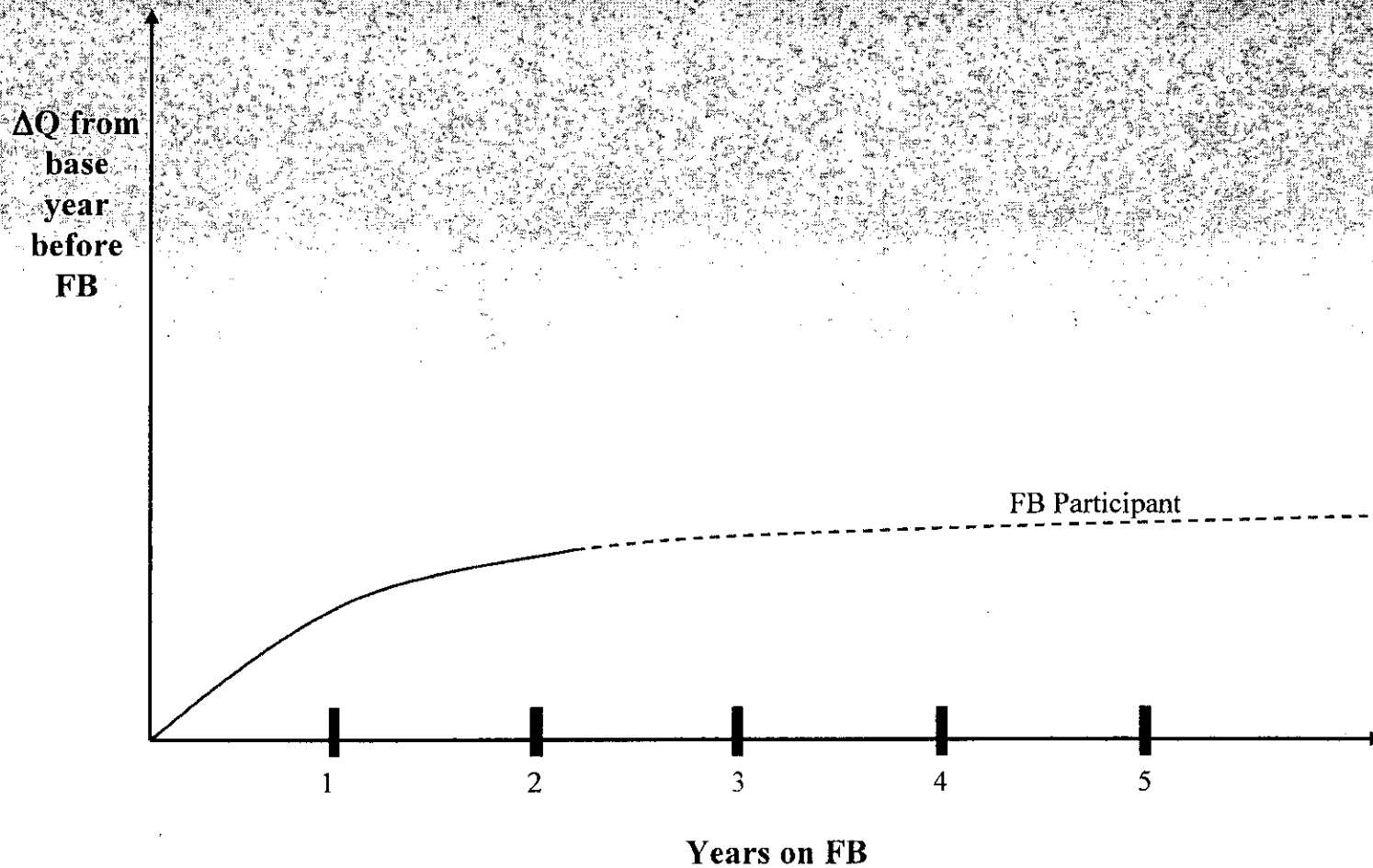
## *Growth!*

- Additional profitable kWh's
  - + shoulder and off-peak





# Fixed Bill Changes in kWh Usage





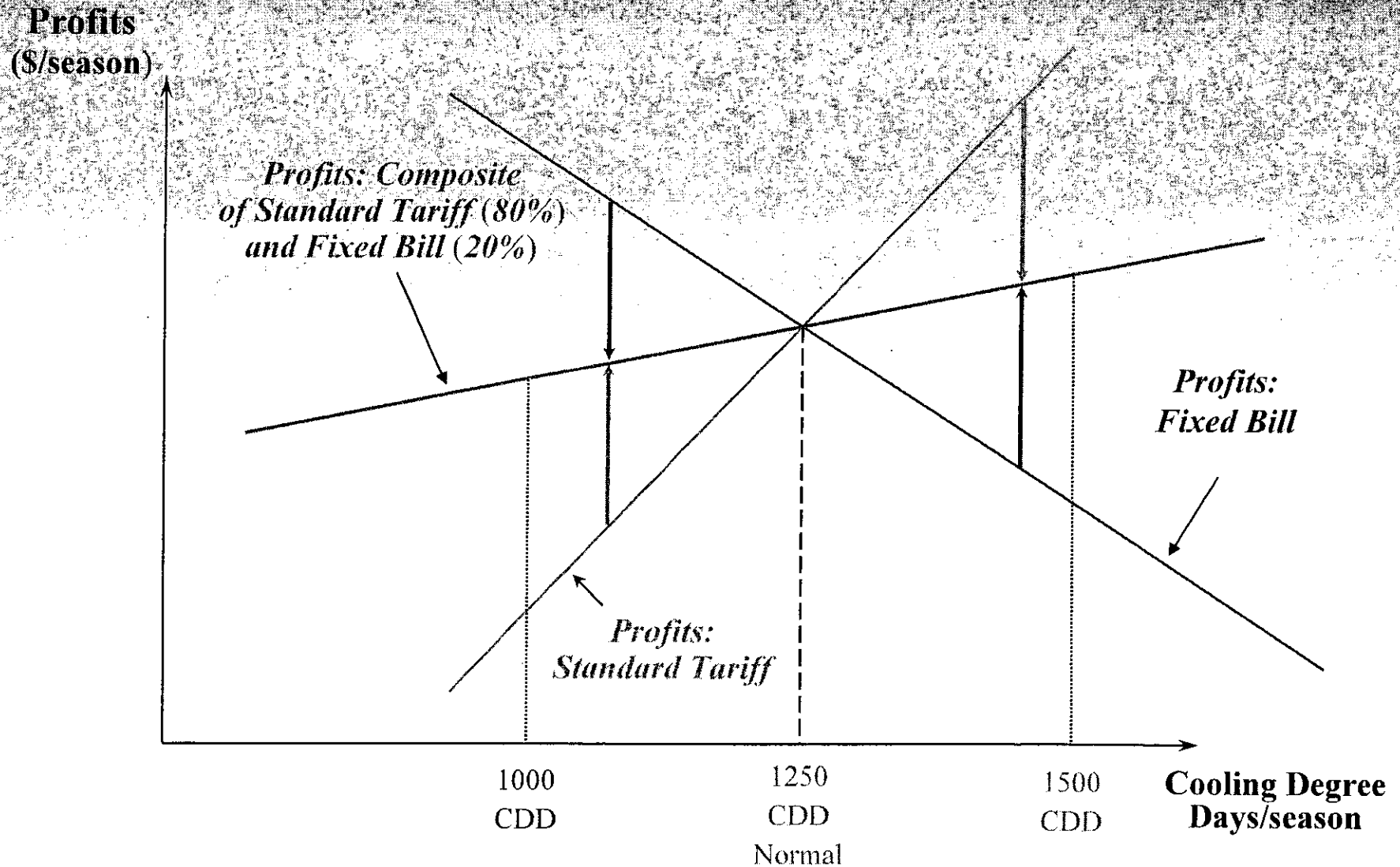
## What to Expect from Fixed Bill?

- ❑ Healthy kWh growth mostly off-peak
  - Small CP effects
- ❑ High customer satisfaction and renewal
- ❑ Reduced deferral payments and bad debt
- ❑ Good penetration rates with attractive premiums
- ❑ Strong interest from budget pay customers
- ❑ Manageable risks
  - Natural hedge



# Manageable Risks – Natural Hedge

## Joint Profits from Standard Tariff plus some Fixed Bill Customer

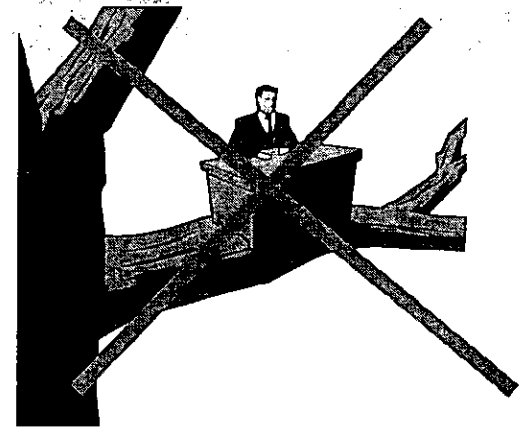




# Bill Offer Computation Factors

**Goal: Manage & control exposure while providing your customers what they want!**

- ☐ Weather normalization
- ☐ Predict quantity change
- ☐ Risk premium
- ☐ Develop billing algorithm and software
- ☐ Track and recalibrate model (this optimizes product value)
  - Consider segmentation





## FlatBill Costing Methodology

- ❑ *Expected* change in the customer's usage is incorporated into a **quantity adjustment** to the individual customer's normal-weather usage forecast under the standard tariff; then this usage is billed at the standard tariff
- ❑ *Risk of departure* from those expected values are incorporated in the **risk premium**



# Billing Offer System

## □ Create billing computation formula:

$A_i$  = Weather normalized kWh monthly history for each individual customer  $i$

$B$  = Moral hazard %

$C$  = Risk premium %

$D$  = Expected % natural kWh growth/customer

$E$  = Standard rate otherwise applicable, including any and all clauses such as fuel (exclude taxes and local franchise fees)

$$\sum_{i=\text{January}}^{\text{December}} \left\{ \left[ A_i \times (1 + B) \right] \times (1 + D) \times E \right\} \times (1 + C)$$



## **Risks of Departure from Expected Case**

- ☐ **Price response** may be different from prediction
- ☐ **Natural growth** may be different from predicted
- ☐ **Weather** may be extreme
- ☐ **Modeling** recognizes that we may not fully capture customers' behavior
  - Includes any possible “selection bias”
- ☐ **Regulated prices and fuel cost forecasts** may change before end of contract period



## Fixed Bill Risk

	1 <sup>st</sup> Year	Cumulative Over 5 Years	Any One Year
Expected Penetration =	9%	15%	
Expected EBIT =	\$1M	\$10.8M	
Worst Case EBIT =			(\$5.5M)
Best Case EBIT =			\$11.5M
Net Present Value =		\$7.8M	
Net Profit Likelihood =	68%	85%	



# How to Manage Financial Issues

- ❑ Financial Hedges or Natural Hedge
  - Option premium in Fixed Bill
- ❑ Premium flexibility
  - Segmentation
- ❑ Rollout timing with phases
- ❑ Tracking and reporting software
- ❑ “Above-the-line or below” accounting



# Fixed Bill Implementation Issues

- ❑ Cash flow and time value of money
- ❑ Product appeal and penetration
  - Greatest with summer offering for summer peaking utility
- ❑ Deferred credit resource?
- ❑ Bad credit resource?

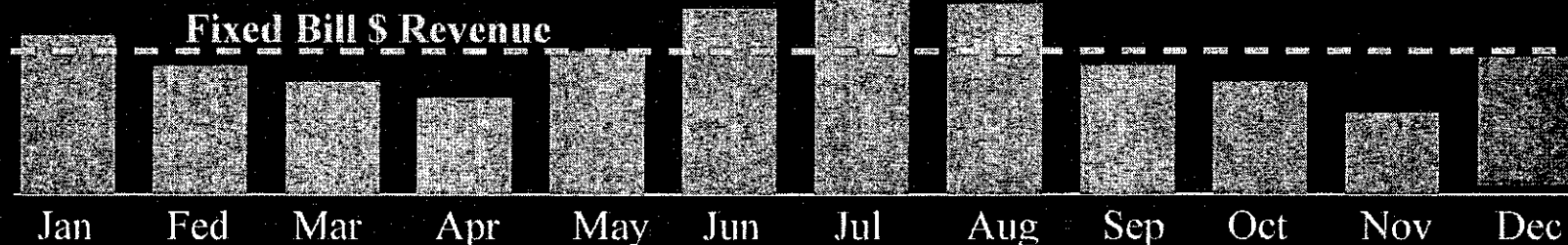


# Fixed Bill Implementation Issues

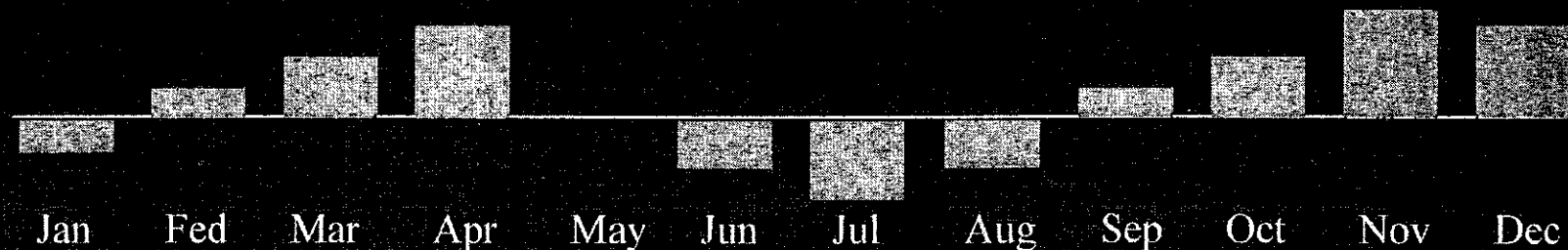
Seasonality: "Keep the Faith"

Summer Peaking Utility

**Typical \$ Revenue per Customer  
With Traditional Residential Tariff**



**\$ Revenue Variance Between Fixed Bill and Traditional Tariff  
Weather Normal**





# Fixed Bill Implementation Issues

- ❑ Pilot or permanent initial rollout
- ❑ System load impacts
- ❑ Financial impacts
- ❑ Product design
  - Bill algorithm and seamless software for offer
    - Weather Normalization
    - Risk coverage and premium
    - Quantity change
  - Tariff design
    - Eligibility
    - Force majeure
    - Early termination
    - Budget billing
    - Goodness of fit
    - History and credit



# Fixed Bill Implementation Issues

- ☐ Accounting
  - Above or below
- ☐ Regulatory approval
- ☐ Target Marketing
- ☐ Risk Management Committee and Hedging
- ☐ Dedicated Staff
  - Renewals
  - Recalibration
  - Segmentation
- ☐ Tracking software
  - Reporting
  - Algorithm enhancement



# Implementation Challenge: How to Win Approval?

## ❑ Internal Approval:

- Need a methodology and price components that are sound, reasonable and explainable
- Matches Company Risk Appetite including risk management committee
- Business Model with forecasts, budget, and tracking
- Regulatory approval and reporting

## ❑ Regulatory Approval:

- Risk to non-participants
- Conservation and Clean Air
- Tracking and Reporting



**Bad  
Credit**

**Extreme  
Weather**

**Seasonal  
Effects**

**Bill  
Volatility**



**Fixed Bill Family**

**Multi-year**

**Developer  
Packages**

**Conservation  
Package**

**Prepay  
w/Discount**

**Apartment  
Packages**

**Standard  
Fixed Bill**

**"Green"  
Package**

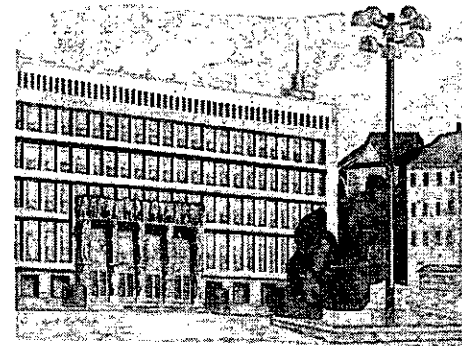
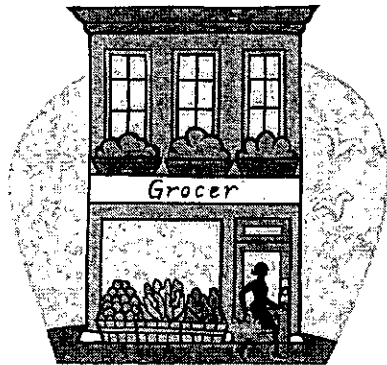
**Prepay**

**"Phone card"  
Limits Plus**

**Banded  
Fixed Bill**



# Fixed Bill for Small to Mid-Size Business Customers





## Marketing Basis

- ❑ Business customers want pricing choices
- ❑ Most business customers want simplicity and predictability
- ❑ Customers appreciate self design feature- Improves customer satisfaction
- ❑ Weather impacts, business impacts, and energy cost changes insured and guaranteed below ceiling
- ❑ Eliminates demand feature of traditional tariffs



# Principles of Fixed Bill For Business

- ❑ Target market: small and medium size business customers
- ❑ Provides customers with
  - A constant bill amount with no true-up when usage remains below ceiling



# Design Challenges

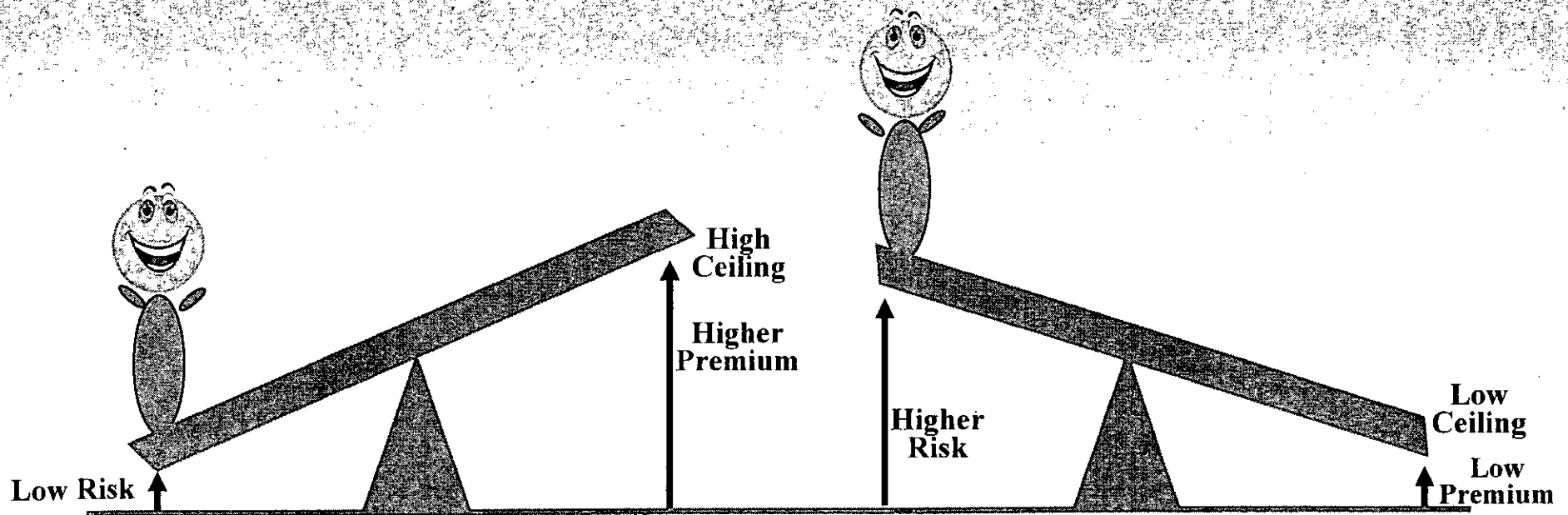
- Three Major Challenges
  - Risk Premium for usage below ceiling
  - Prices for any use above ceilings
  - Ceiling choices



# Ceiling Choice Trade-offs

**Customer Wanting Low Risk  
okay with Higher Prices**

**Customer Wanting Lower  
Prices okay with Higher Risk**



**Level Playing Field**



# Fixed Bill For Business Offer

## Example

	Ceiling Choices		
	Annual Average: 10,000 kWh/month		
Number of Ceilings	Low 12,000 kWh	Moderate 15,000 kWh	High 17,000 kWh
Annual	\$1000	\$1100	\$1200
Seasonal	\$900	\$950	\$1050
Monthly	\$800	\$850	\$980



# Structure

- ❑ Fixed Bill For Business offer fixed \$ amount—usage above ceiling on an incremental usage basis
- ❑ Excess kWh billed using flat TOU ¢/kWh; 30 cents/kWh on peak and 10 cents/kWh off peak
- ❑ No demand charge
- ❑ Initial size limitations
- ❑ kWh ceiling only; no kW ceiling
- ❑ Certain SIC Codes will find more appealing
- ❑ At least 12 months history
- ❑ Product encourages meter measurement software (Energy Direct/ Pulse option)
- ❑ 1 year contract—early termination rules
- ❑ Below-the-line (Risk Premium) risk treatment instead of Above-the-line
- ❑ Abuse provision



## Time Line

- ❑ December 2005 – Initial Tariff Design
- ❑ January 2006 – Market Research
- ❑ February 2006 – PSC Request
- ❑ May 2006 – PSC approval
- ❑ June 2006 – Solicit Pilot Participants
- ❑ August 1, 2006 – Pilot Launch



Vice President of Marketing

I'd just like to take a moment  
to sincerely thank you for all your  
efforts on behalf of the customers.

I like to especially thank you for  
the Flat Bill Plan.

I live on a fixed income, my home is  
totally electric and it's a constant struggle  
for me to handle my bill! If you check  
your records, you'll see what I mean!

May God richly bless you, your  
co-workers, and each of your loved ones.  
Have a wonderful day!



Comparison of Load Impacts  
and Calculation of Five Year Residential Lighting Program Costs

Load Impacts	
Fixed Bill Program	Residential Lighting Program
First Year	9,416,000 kWhs
Five Year Total	-732,436 kWhs
	-13,185,742 kWhs

First Year Fixed Bill Impacts as a percentage of Lighing Program Five Year Impact      71.41%

Annual Costs Residential Lighting Program	
Year 1	\$49,000
Year 2	\$80,400
Year 3	\$116,600
Year 4	\$125,600
Year 5	\$137,000
SUM	\$508,600

Data sources for this spreadsheet

1. Aquila response to OPC DR No. 2052
2. Aquila Residential Lighting Program Description filed in Case No. EO-2008-0050



**AQUILA INC.  
AQUILA NETWORKS-MISSOURI (ELECTRIC)  
CASE NO. EO-2007-0395  
OFFICE OF PUBLIC COUNSEL  
DATA REQUEST NO. OPC-2052**

**DATE OF REQUEST:** September 12, 2007

**DATE RECEIVED:** September 12, 2007

**DATE DUE:** September 19, 2007

**REQUESTOR:** Ryan Kind

**REQUEST:**

Please provide all analysis of possible load building impacts that may result from the existing or proposed fixed bill program that has been performed by or for Aquila or its affiliates. This would include, but not be limited to, the calculation of customer load growth impacts that are reflected in the "kWh growth factor."

**RESPONSE:** See attached spreadsheet.

**ATTACHMENTS:** OPC-2052.xls

**ANSWERED BY:** Dennis Odell

**DATE COMPLETED:** September 19, 2007



### Projected Usage Impact of Fixed Bill Program

Line			Notes
1	Total MWH Usage	5,211,957	January - November, 2006
2	Residential MWH Usage	2,428,634	January - November, 2006
3	Total Residential Customer Count	208,926	November, 2006
4	Residential UPC (MWH)	11.624	Line 2 / Line 3
5	Total Customers Qualifying for Fixed Bill	135,000	Estimated based on tariff criteria
6	Percentage of Qualifying Customers that Select Fixed Bill	10%	Estimated - First year probably lower
7	Total Customers Selecting Fixed Bill	13,500	Line 5 x Line 6
8	Total Usage by Customers Selecting Fixed Bill	156,929	Line 4 x Line 7
9	Percentage Increase in Usage	6.0%	6% Growth rate assumed for Fixed Bill
10	Increased Usage by Customers Selecting Fixed Bill	9,416	Line 8 x Line 9
11	Overall Percentage Increase in Usage due to Fixed Bill	0.18%	Line 10 / Line 1

**This is a first-year impact only. Customer UPC increases are lower after the first year.  
This load increase is largely off-peak.**



**AQUILA INC.  
AQUILA NETWORKS-MISSOURI (ELECTRIC)  
CASE NO. EO-2007-0395  
OFFICE OF PUBLIC COUNSEL  
DATA REQUEST NO. OPC-2048**

**DATE OF REQUEST:** September 12, 2007

**DATE RECEIVED:** September 12, 2007

**DATE DUE:** September 19, 2007

**REQUESTOR:** Ryan Kind

**REQUEST:**

Please provide a current capacity balance spreadsheet for Aquila's Missouri electric operations for the next 10 years that shows the level of peak load that is forecasted (with required reserves) for each year and the specific supply-side resources that Aquila will use to serve its loads in each year. This spreadsheet would be similar in format to Table 2-3 on page 4 of Part 2 of Aquila's February 2007 IRP filing but would provide more detail on the supply side-resources that will be used to serve loads in each of the 10 years.

**RESPONSE:**

Please see the attached spreadsheet. It should be noted that the load forecast does not include any impact of DSM programs.

**ATTACHMENTS:** OPC-2048.xls

**ANSWERED BY:** Dennis Odell

**DATE COMPLETED:** September 19, 2007



Generation Capacity	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Existing Generation Capacity											
Baseload Capacity											
Sibley 1	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8	53.8
Sibley 2	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9
Sibley 3	400.6	400.6	400.6	400.6	400.6	400.6	400.6	400.6	400.6	400.6	400.6
Jeffrey 1	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4
Jeffrey 2	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4
Jeffrey 3	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4	58.4
Lake Road 4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4	97.4
Iatan	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7	117.7
Total Baseload Capacity	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6	898.6
Peaking Capacity											
Ralph Green 3	71	71	71	71	71	71	71	71	71	71	71
Greenwood 1	60	60	60	60	60	60	60	60	60	60	60
Greenwood 2	60	60	60	60	60	60	60	60	60	60	60
Greenwood 3	58	58	58	58	58	58	58	58	58	58	58
Greenwood 4	60	60	60	60	60	60	60	60	60	60	60
Nevada	20	20	20	20	20	20	20	20	20	20	20
KCI 1	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7	16.7
KCI 2	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9	16.9
South Harper 1	105	105	105	105	105	105	105	105	105	105	105
South Harper 2	105	105	105	105	105	105	105	105	105	105	105
South Harper 3	105	105	105	105	105	105	105	105	105	105	105
Lake Road 1	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7
Lake Road 2	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3
Lake Road 3	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
Lake Road 5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5	68.5
Lake Road 6	21	21	21	21	21	21	21	21	21	21	21
Lake Road 7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7	21.7
Total Peaking Capacity	849.0	849.0	849.0	849.0	849.0	849.0	849.0	849.0	849.0	849.0	849.0
New Generation Capacity (Iatan 2)	0.0	0.0	0.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0	153.0
<b>Total Generation Capacity</b>	<b>1747.6</b>	<b>1747.6</b>	<b>1747.6</b>	<b>1900.6</b>	<b>1900.6</b>	<b>1900.6</b>	<b>1900.6</b>	<b>1900.6</b>	<b>1900.6</b>	<b>1900.6</b>	<b>1900.6</b>
Transactions	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Capacity Purchases											
NPPD	175.0	175.0	175.0	175.0	75.0	75.0	75.0	0.0	0.0	0.0	0.0
MidAmerican Energy	75.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Union Power Partners	225.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gray County	20.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total Purchases Executed</b>	<b>495.0</b>	<b>175.0</b>	<b>175.0</b>	<b>175.0</b>	<b>75.0</b>	<b>75.0</b>	<b>75.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>



Total System Capacity	2242.6	1922.6	1922.6	2075.6	1975.6	1975.6	1975.6	1900.6	1900.6	1900.6	1900.6
System Peaks & Reserves	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Peak Demands											
Forecasted Peak MPS	1465.0	1507.0	1551.0	1595.0	1626.0	1664.0	1704.0	1745.0	1787.0	1830.0	1874.0
Forecasted Peak SJD	429.0	438.0	446.0	455.0	467.0	476.0	485.0	493.0	501.0	509.0	516.0
Coincident Peak Forecast	1888.0	1939.0	1989.0	2042.0	2083.0	2130.0	2178.0	2225.0	2274.0	2324.0	2376.0
Capacity Reserves	354.6	-16.4	-66.4	-33.6	-107.4	-154.4	-202.4	-324.4	-373.4	-423.4	-475.4
Reserve Margin	18.78%	-0.85%	-3.34%	1.65%	-5.16%	-7.25%	-9.29%	-14.58%	-16.42%	-18.22%	-20.01%
Additional Capacity Required											
to meet 13.64% Reserve Margin	0.0	280.9	337.7	244.9	391.5	444.9	499.5	627.9	683.6	740.4	799.5

Kind Rebuttal  
Attachment 4



**AQUILA INC.  
AQUILA NETWORKS-MISSOURI (ELECTRIC)  
CASE NO. EO-2007-0395  
OFFICE OF PUBLIC COUNSEL  
DATA REQUEST NO. OPC-2053**

**DATE OF REQUEST:** September 12, 2007

**DATE RECEIVED:** September 12, 2007

**DATE DUE:** September 19, 2007

**REQUESTOR:** Ryan Kind

**REQUEST:**

Is Aquila willing to make a firm commitment to hold ratepayers harmless from any possible adverse rate impacts that may result from the proposed fixed bill program if the program has load building impacts that create upward pressure on Aquila's costs and rates? If not, please fully explain why.

**RESPONSE:**

Aquila has taken reasonable steps, including its proposal to treat gains and losses from this program below-the-line, to ensure that nonparticipating customers are not impacted by this program. As demonstrated in Aquila's response to OPC-2052, the projected usage impacts of this program are minimal and do not necessitate any such commitment. In addition, any such ratemaking commitments would be premature given that this is a pilot program.

**ATTACHMENTS:** None

**ANSWERED BY:** Dennis Odell

**DATE COMPLETED:** September 19, 2007



COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF EAST KENTUCKY POWER	)	
COOPERATIVE, INC., INTER-COUNTY ENERGY	)	
COOPERATIVE CORPORATION, NOLIN RURAL	)	CASE NO.
ELECTRIC COOPERATIVE CORPORATION, AND	)	2004-00330
SALT RIVER ELECTRIC COOPERATIVE	)	
CORPORATION, FOR AUTHORITY TO IMPLEMENT	)	
A FIXED BILL PILOT PROGRAM	)	

O R D E R

On August 20, 2004, East Kentucky Power Cooperative, Inc. ("East Kentucky") and three of its member distribution cooperatives, Inter-County Energy Cooperative Corporation, Nolin Rural Electric Cooperative Corporation, and Salt River Electric Cooperative Corporation (collectively "Joint Applicants"), filed an application for approval of a pilot fixed bill program. Under the program, a limited number of residential customers could choose to pay a pre-determined, fixed amount each month for service over the next 12 months. The fixed amount paid would vary for each customer based on that customer's prior consumption adjusted to reflect normal weather.

Intervention was requested by, and granted to, the Office of the Attorney General ("AG"). The Joint Applicants responded to two data requests issued by the AG, and three data requests issued by Commission Staff. The parties agreed to file written comments in lieu of a hearing. Those comments have been filed, and the case now stands submitted for a decision.

Kind Rebuttal  
Attachment 6



## BACKGROUND

The Joint Applicants premise their proposal on three basic goals: (1) eliminating uncertainty for customers regarding the amount of their bills; (2) improved customer satisfaction; and (3) improved system load factor. According to the Joint Applicants, some customers have been dissatisfied with the budget billing programs that are available to them because those programs require an end of the year reconciliation, or true-up payment, in month 12 if the budget amount paid for 12 months is less than the amount otherwise due based on actual usage and actual rates. The fixed bill program requires no true-up or reconciliation between the fixed amount paid for 12 months and the amount that would have been paid based on actual consumption and actual rates.

Under the program, a customer's historical annual usage is determined based on a minimum of 12 months actual experience. The historic annual usage is then adjusted to reflect normal weather and temperature conditions. This yields a normalized annual usage which is divided by 12 and then applied to current rates to derive the customer's monthly fixed bill. This amount is then increased by a risk factor premium which is intended to protect the Joint Applicants from the uncertainties and risks of abnormal weather, changes in rates, and changes in customer usage levels not related to weather. Although there is no end of the year true-up payment required, a customer's actual usage during the first 12 months under the pilot program will be recognized when calculating the customer's fixed bill amount for the next 12 months.

The Joint Applicants cited other fixed bill programs, most notably those of Georgia Power, Duke Power, Progress Energy, and Gulf Power, in support of their proposal. These other utilities had between 1 year and 3 years experience with fixed



bill programs at the time East Kentucky filed this case. The citations to these other utilities' fixed bill programs primarily referenced the number of participants in each pilot and how those numbers greatly increased once the programs were made available to more customers.

Due to a claim of confidentiality for certain information, the Joint Applicants did not disclose the changes in customer usage or system-wide demand for any of these other utilities except Gulf Power. For the first year of Gulf Power's pilot program, energy usage increased by 8 percent, while most of the increase in demand occurred in shoulder and off-peak periods rather than on-peak periods. Such increases in energy sales without an increase in peak demand results in a higher load factor, which means the utility system generates more electricity while operating at the same capacity.

#### DISCUSSION

The AG opposes the program, citing three arguments. First, he argues that a fixed bill offering is a price-based product, which in a deregulated electric market would properly place the full risk of the offer on the seller. However, in a regulated electric market, as in Kentucky, the AG argues that the utility seller is never fully at risk because it always has the authority to seek an increase in rates. The AG notes that East Kentucky expects to add generating capacity over the next several years and that this will increase the likelihood that East Kentucky will be seeking rate increases. In a test year in which weather or other factors cause fixed bill customers to use more electricity than normal, the AG argues, East Kentucky will suffer a revenue deficiency, which will have to be made up through the rates charged to the nonparticipating customers.



Second, the AG argues that the risk factor premium will provide the utility a greater margin than that provided by standard cost-of-service rates whenever a fixed bill customer does not consume more than the normalized usage level. The utility keeps this extra profit, the AG claims, over and above the cost to serve the customer. Only if the fixed bill customer's actual usage is substantially greater than the normalized usage will the utility lose money, according to the AG. While losses and profits under the program are intended to balance over time, nothing prevents the utility from seeking a rate increase at a time of under-earning. Therefore, losses on the fixed bill program could result in increased rates for other customers. Because of this potential, the AG argues that the ratepayers will bear all of the program's risk.

Third, the AG argues that a fixed bill program encourages wasteful consumption. The AG notes that what evidence there is on other programs shows that consumption increases in the first year of the program and that the promotional information touts this as one of the benefits of the program. The AG states that the Joint Applicants have not provided sufficient detail as to the type of change in consumption that is expected to occur to allay the concerns that wasteful consumption is what gives rise to the anticipated improvement in system load factor. Given East Kentucky's present and projected need for additional generating capacity, the AG argues against pursuing a program that might exacerbate that need.

The Joint Applicants responded to the AG's first objection by stating that the fixed bill proposal is cost-based, and it is designed to recover all the costs now recovered under standard tariffed rates plus a premium to compensate for the risk assumed under the program. The Joint Applicants point out that those utilities with fixed bill programs



are located in the south, southwest, or midwest, are not deregulated, and employ the principles of cost-based rates. The Joint Applicants also state that they have no intent to seek recovery of lost revenue if any does occur as a result of the pilot program

On the AG's second point, the Joint Applicants state that any excess margins will be short-term in nature and will be offset in the following year. This is because a fixed bill customer's actual consumption during the first 12 months of the program will be used to set the amount of the fixed bill in the second year, thereby eliminating the possibility of higher margins in the second year. On the other hand, the Joint Applicants state that if a fixed bill customer's usage exceeds the normalized level, the utility will under-collect compared to what a similar customer not served under the program would pay. Hence, according to the Joint Applicants, a fixed bill program does not place all the risk on ratepayers.

On the AG's third point, the Joint Applicants argue that, without empirical evidence from Kentucky customers, it is unknown whether a fixed bill will encourage wasteful consumption. It is for this reason that a limited pilot has been proposed. The Joint Applicants intend to analyze the results of the pilot to determine whether wasteful consumption did occur. The Joint Applicants point to the results of Gulf Power, which experienced no statistically significant change in peak demand, although overall energy usage did increase. While recognizing that this may not be the result in Kentucky, the Joint Applicants maintain that this experience should offer comfort to all parties that the program does not automatically result in higher peak demand.



### COMMISSION FINDINGS

Based on the evidence of record and being otherwise sufficiently advised, the Commission finds that the Joint Applicants' fixed bill proposal appears to be an extraordinary response to a concern expressed by a limited number of their customers. The Joint Applicants have not surveyed their customers or performed any quantitative analysis to determine the level of demand or interest their customers have in a fixed bill program. If minimizing the amount of the true-up customers pay at the end of a budget year is an important goal of the Joint Applicants, there are other means available to achieve that goal. Budget billing plans with multiple adjustments during the budget year and levelized billing plans that eliminate the need for a year end true-up by employing a rolling average of historic usage are two means of addressing the issue of customers' true-up payments.

The Commission shares, to some extent, the AG's concerns about possible financial or rate impacts of a fixed bill program. East Kentucky's fuel costs as reflected in its monthly fuel adjustment clause rate have been increasing over the past few years. East Kentucky has also recently adopted a monthly environmental surcharge to be effective this summer. By using today's rates to calculate a fixed bill to be charged over the next 12 months, East Kentucky increases the likelihood of not recovering all its costs to serve fixed bill customers, even assuming their usage does not exceed normalized levels. Assurances offered by the Joint Applicants that they would not seek to recover related costs or losses, and the Commission's ability to fashion safeguards for the program tend to mitigate those concerns. However, if there is a major problem with this program, the Commission is always mindful that the Joint Applicants, as



member-owned cooperatives, have no shareholders to absorb the costs or losses that might be incurred as a result of a fixed bill program.

The issue of greatest concern to the Commission is the potential impact a fixed bill program could have on energy consumption and demand. The limited results of the Gulf Power pilot program, contrary to the claims of the Joint Applicants, offer little comfort on this matter. An 8 percent increase in energy usage is much greater than what typically occurs due to normal growth. Particularly with East Kentucky's fuel costs increasing substantially in recent years, the merits of attempting to increase customer satisfaction by implementing a program that encourages customers to use more electricity, without sending proper pricing signals, are questionable.

While a few other utilities have implemented fixed bill programs, Gulf Power's is the only one for which information on changes in usage and demand is available. In addition, none of those other utilities, including Gulf Power, are exclusively winter peaking systems, as are the Joint Applicants. Therefore, the results of the programs of other utilities may be of little relevance to the Joint Applicants' situation. Whether those results could be relevant is not known, however, since they were not provided when requested, even though the consultant retained by the Joint Applicants to develop their fixed bill proposal was also a consultant to some of the other utilities. Without providing more information on the impacts that other fixed bill programs have had on energy usage and demand, the Joint Applicants have been unable to demonstrate that this program will not result in higher costs for all ratepayers.

The Commission takes administrative notice that East Kentucky currently has two cases pending to construct a total of over 950 Mw of capacity at a cost in excess of



\$1.35 billion. This makes it highly questionable for East Kentucky to pursue a billing program that removes the link between the quantity of electricity that customers use and the cost of that electricity. With the impact of East Kentucky's recently approved environmental surcharge expected to increase customers' bills this summer, and with the forecast of a need for an additional rate increase later this decade to recover the cost of new capacity, East Kentucky's interest in pursuing a fixed bill program does not appear to be well founded.

Although the Joint Applicants point to the small size of the proposed pilot, it is the Commission's sense that a fixed bill program should not be pursued, regardless of its size, unless: (1) there is clear evidence of a demand for the program that cannot otherwise be addressed; and (2) meaningful results of other programs are available which demonstrate that the likely outcome will not adversely impact customers, in the short-run or the long-run, by creating a need for additional capacity or by increasing the utility's costs or reducing its revenues.

Although we are rejecting the fixed bill pilot program as proposed, we encourage the Joint Applicants to investigate other ways to address their customers' dissatisfaction with the current budget plans. The Commission is willing to consider proposals to modify existing budget billing plans by adopting semi-annual or quarterly adjustments, or by adopting levelized billing plans, to address ratepayer concerns about existing plans.

IT IS THEREFORE ORDERED that the fixed bill pilot program proposed by the Joint Applicants is denied.



Done at Frankfort, Kentucky, this 4<sup>th</sup> day of May, 2005.

By the Commission

ATTEST:

A handwritten signature in dark ink, consisting of several overlapping loops and a long horizontal stroke at the end, positioned above the title 'Executive Director'.

Executive Director

Case No. 2004-00330



COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF THE UNION LIGHT, HEAT	)	
AND POWER COMPANY FOR APPROVAL OF	)	CASE NO.
FIXED BILL PROGRAM RIDERS APPLICABLE TO	)	2004-00503
RESIDENTIAL CUSTOMERS	)	

ORDER

The Union Light, Heat and Power Company ("ULH&P") has proposed a fixed bill pilot program in which 1,000 residential customers could voluntarily participate the first year. Under the program, a customer's monthly bill would be fixed at a specific amount for a period of 12 months, based on current rates and the customer's historical usage, adjusted to reflect normal temperatures. The customer's fixed bill would also include a program fee intended to compensate ULH&P for its increased financial risks resulting from the program. There would be no true-up at the end of the 12 months, a feature which distinguishes a fixed bill program from a traditional budget billing plan. However, a customer's usage during the first 12 months of the program would form the basis for calculating the customer's fixed bill amount during the next 12 months. The Attorney General ("AG") was the only intervenor in this proceeding.

Having considered the proposal and all the evidence of record, the Commission finds that ULH&P's proposed fixed bill pilot program should be rejected for the following reasons: (1) the proposed program would eliminate the price signal that can influence customers' consumption; (2) there is little evidence of a need for or an interest in such a

Kind Rebuttal  
Attachment 7



program; and (3) there is very little information available on the energy sales impacts and system demand impacts of other fixed bill programs.

#### BACKGROUND

After filing its application, ULH&P was subject to three rounds of discovery by Commission Staff and the AG. The parties agreed to file comments in lieu of a hearing. The evidentiary phase of this proceeding appeared to have concluded in April of 2005 upon the receipt of ULH&P's comments filed in reply to the AG's written comments. However, in May of 2005, ULH&P requested to reopen this case record so it could conduct further research into the level of customer interest in a fixed bill program.<sup>1</sup> That request was granted and ULH&P filed additional information on which the Staff and the AG issued their third and final data requests. The record is now complete and the matter is submitted for decision.

ULH&P premised its proposal on three basic goals: (1) responding to competition from non-regulated providers of heat-producing commodities; (2) eliminating customer uncertainty regarding the amount of their bills; and (3) increasing customer satisfaction. The proposed fixed bill program would be voluntary, available to 1,000 customers for the first year, and applicable to customers' gas and electric usage. After the first year, ULH&P proposed to market the program to roughly 50,000 customers while allowing the first 14,000 eligible customers who seek to enroll to participate in the program.<sup>2</sup> ULH&P

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<sup>1</sup> ULH&P indicated that its request was based on the decision in Case No. 2004-00330, in which the Commission rejected the fixed bill proposal of East Kentucky Power Cooperative, Inc. ("East Kentucky Power").

<sup>2</sup> In response to a data request, ULH&P discounted maintaining the number of participants at 1,000 beyond the first year of the pilot, stating that it did not want to be put in a position of turning down customers who wished to take part in the program.



proposed to set the program fee annually on a customer-specific basis, while agreeing to cap it at 10 percent of the customer's bill. It also proposed that the profits and losses and incremental expenses of the program be treated "below the line" for regulatory purposes so that customers not participating in the program will not be affected by its costs. In support of its fixed bill proposal, ULH&P cited Administrative Case No. 384, in which the Commission reviewed natural gas pricing and procurement issues and stated that it would be willing to consider fixed bill programs.<sup>3</sup>

Under the program, a customer's historical usage (based on at least 12 months of data) would be adjusted to reflect normal temperature conditions. The "normalized" annual consumption would then be used to calculate the customer's fixed annual bill, which would be divided by 12 to derive the monthly bill. This amount, which would be based on ULH&P's existing rates, would then be increased by the program fee. This fee is intended to protect ULH&P from the uncertainties and risks of abnormal weather, potential changes in costs and changes in customer usage not related to weather.

ULH&P identified the various payment options it currently offers customers and stated its belief that the fixed bill program would complement those programs. Like many other major utilities, ULH&P allows customers to pay their bills at "pay stations," typically retailers who offer extended operating hours. It also offers an e-bill option and an automatic bank draft option. In addition, for a transaction fee, customers can pay by electronic check or credit card. ULH&P presently offers two budget billing programs: an annual plan, in which the customer's bill is trued-up in the 12<sup>th</sup> month; and a quarterly

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<sup>3</sup> Administrative Case No. 384, An Investigation of Increasing Wholesale Natural Prices and the Impact of Such Increases on the Retail Customers Served by Kentucky's Jurisdictional Natural Gas Distribution Companies, Order dated July 17, 2001.



plan, in which the bill is adjusted every 3 months. Under the quarterly plan, any credit or balance owed at the end of the 12<sup>th</sup> month is rolled over into the following 12 months.

ULH&P cited survey results from J.D. Power and Associates ("J.D. Power") which show that, in 2004, approximately 17 percent of utility customers nationally were on some type of level payment plan. It also cited the enrollment and renewal success of fixed bill programs offered by Georgia Power, Duke Power, and Progress Energy as well as a survey of employees of its affiliate, Public Service Indiana ("PSI"), who participated in a small fixed bill pilot in 1996, as evidence of support for a fixed bill program. It noted that if the fixed bill program resulted in greater customer satisfaction, that would positively effect its ranking against the utilities with whom it competes in annual J.D. Power customer satisfaction surveys.

The information available on existing fixed bill programs of the utilities previously identified primarily references the number of participants in the pilots and how those numbers increased once the utilities were authorized to offer their programs on a wider basis. Due to confidentiality restrictions, ULH&P did not provide information on the changes in customer usage or system-wide demand for any of the utilities with fixed bill programs except for Gulf Power. The first year results of Gulf Power's pilot program showed that energy consumption increased by 8 percent, while most of the increase in demand occurred in shoulder and off-peak periods rather than on-peak periods.

## DISCUSSION

### The AG's Position

The AG opposed the program based on several arguments. First, he argued that a fixed bill offering is a price-based product, which in a deregulated electric market



would properly place the full risk of the offer on the seller. However, in a regulated electric market, as in Kentucky, the AG argued that such a program provides monopoly protection for a pricing product that is offered as an optional billing program. The AG contended that a fixed bill is not really a billing option, but a new rate that compensates the utility for the management of the usage/financial risk of the customer taking gas or electric service.

The AG also argued that the program fee operates to provide a greater margin than that provided by standard cost-of-service rates due to the proposed program fee. The utility keeps this extra profit, the AG claimed, over and above the cost to serve the customer. The AG argued that it is anti-competitive to provide a regulated utility, such as ULH&P, the ability to charge a regulated rate for risk management services that are not inherently monopolistic by nature.

The AG claimed the program runs counter to specific statutory provisions which encourage reduced usage through demand side management and make price signals so remote as to be meaningless. He also claimed that the increase in usage has the potential to reduce off-system electric sales, which would benefit program participants at the expense of non-participants.

Although strongly opposed to the program, the AG, in his final comments filed July 29, 2005, identified specific conditions which he believed should be imposed if the Commission chooses to approve a pilot. Those conditions include: (1) that ULH&P, as a regulated utility subject to KRS 278.160, should not be allowed to determine the amount of the proposed program fee and that the fee should be set by the Commission; (2) that annual re-enrollment be required, rather than it be automatic that a customer



remains with the program; (3) that the penalties of the program should be made as prominent as the benefits in the advertising and solicitation; and (4) that clear data showing the costs and benefits of participation should be required to be provided to participants.

#### ULH&P's Position

ULH&P argued that its fixed bill proposal is cost-based, reflecting all the costs of its standard tariffed rates, plus a premium to compensate it for the risk it assumes under the program. It claimed that its main objective is to provide customers with greater choices in terms of billing/payment options. ULH&P emphasized the fact that, as an investor-owned utility, it does not present the same concerns as those identified in the Commission's Order denying East Kentucky Power's request to implement a fixed bill pilot program.<sup>4</sup>

ULH&P pointed out that the revenues and expenses of the pilot program would be recorded "below the line" for regulatory purposes. It stated that any excess profits will be short-term in nature and will be offset in the following year. This is because the program will reflect a customer's consumption in the first year in setting the fixed bill amount in the second year, therefore, eliminating the possibility of higher profits in the second year. It argued that the impacts on energy and demand for the program will not be so significant as to be a cause for concern, particularly since it is not planning to add electric generating capacity in the near future, as is East Kentucky Power.

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<sup>4</sup> Case No. 2004-00330, The Application of East Kentucky Power Cooperative, Inc., Inter-County Energy Cooperative Corporation, Nolin Rural Electric Cooperative Corporation, and Salt River Electric Cooperative Corporation for Authority to Implement a Fixed Bill Pilot Program, Order dated May 4, 2005.



ULH&P claimed that its consumer research, conducted in June of this year after the record was re-opened, supports that its customers favor a fixed bill program. Its conclusions, based on this research were: (1) a fixed bill program offers a viable option for a portion of its customers who prefer predictable monthly payments without a true-up at the end of the year; (2) customers think that a premium in the range of 5-10 percent is fair and appropriate; and (3) even customers who don't prefer the fixed bill option recognize its benefits and believe that it should be offered to other customers.

#### ANALYSIS

It appears that ULH&P wishes to implement a fixed bill program primarily to be able to offer customers greater choice and flexibility in billing options. However, contrary to its claims, the information provided on the PSI pilot and the consumer research it conducted in June of this year, do not demonstrate that there is a demand for, or a significant interest in, a fixed bill program. While there are many details in the research questions and the answers, the summary data table provided by ULH&P sums up the overall results. In ranking its standard bill, annual budget bill, its quarterly budget bill and its fixed bill proposal, the fixed bill proposal ranked last (although it was not far behind the quarterly budget plan).

Although its application emphasized the need to respond to competition from non-regulated providers of heat-producing commodities as a reason for proposing a fixed bill program, ULH&P's data responses indicated that its "competition" was based mainly on the advertisements of propane and heating oil dealers who offer fixed or level billing plans. It provided no evidence that it was losing customers to these competitors for heating load because of the competitors' billing plans.



ULH&P's application also emphasized that eliminating uncertainty for customers regarding the amounts of their bills was a motive for proposing a fixed bill program. However, other than eliminating the year-end true-up payment that is included in budget payment plans, the certainty offered by a fixed bill program is no greater than that of a budget plan. If minimizing or eliminating the true-up customers pay at the end of a budget year is important to ULH&P, there are other means of meeting that objective. For example, levelized billing plans, which are offered by many utilities, eliminate the customer's true-up payment. These plans use a rolling average approach, so the amount due each month changes slightly; however, this approach totally eliminates the need for a true-up.

The Commission shares, to a limited extent, the AG's concerns about possible financial or rate impacts of a fixed bill program. The fact that the revenues and expenses would be recorded "below the line" largely mitigates those concerns. We also share the AG's concerns about the impact that increased electricity usage from a fixed bill program could have on ULH&P's ability to make off-system electric sales, particularly when the outcome of Case No. 2003-00252,<sup>5</sup> in which ULH&P's acquisition of 1,105 Mw of generation was approved, contained provisions allowing customers to share in the profits from such off-system sales.

---

<sup>5</sup> Case No. 2003-00252, Application of The Union Light, Heat and Power Company for a Certificate of Public Convenience and Necessity to Acquire Certain Generation Resources and Related Property; for Approval of Certain Purchase Power Agreements; for Approval of Certain Accounting Treatment; and for Approval of Deviation from Requirements of KRS 278.2207 and 278.2213(6).



An issue of great significance, in the Commission's view, is the potential impact a fixed bill program could have on energy consumption and demand. The limited results of the Gulf Power pilot program offer little comfort on this issue. An 8 percent increase in energy usage is much greater than what occurs due to typical consumption growth.

While several utilities have implemented fixed bill programs, Gulf Power's is the only one on which any usage or demand results are available. Without providing more information on the impacts that other fixed bill programs have had on energy usage and demand, ULH&P has done little to alleviate the very legitimate concern that such a program could have negative consequences. Particularly with ULH&P's electric rate freeze scheduled to expire at the end of 2006 and with natural gas costs at record levels, hoping to increase customer satisfaction by implementing a program that could encourage customers to use greater amounts of electricity or natural gas appears to be misguided.

#### CONCLUSION

It is questionable for ULH&P to pursue a program that removes the customer's direct link between the amount of electricity and natural gas used and the cost of that usage. Although ULH&P points to the small size of the proposed pilot, it is the Commission's belief that programs such as this should not be pursued, regardless of their size, unless (1) there is clear evidence of a demand for the program that cannot be addressed otherwise and (2) meaningful results of other programs are available which demonstrate that the expected outcome will not adversely affect customers, in the short run or the long run, by creating a need for additional capacity and/or increases in rates.



IT IS THEREFORE ORDERED that the fixed bill pilot program proposed by  
ULH&P is denied.

Done at Frankfort, Kentucky, this 26<sup>th</sup> day of October, 2005.

By the Commission

ATTEST:

  
Executive Director



DOCKET NO. E-7, SUB 710  
DOCKET NO. E-2, SUB 847

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 710

In the Matter of  
Request by Duke Energy Carolinas, LLC  
for Approval of a Levelized Billing Program

DOCKET NO. E-2, SUB 847

In the Matter of  
Request by Progress Energy Carolinas, Inc.  
for Approval of a Balanced Bill Program

ORDER  
REQUESTING  
FURTHER  
INFORMATION

BY THE COMMISSION: Each of these dockets involve voluntary fixed monthly payment plans for residential electric customers. Duke's fixed payment plan (FPP) was approved by Commission Order dated July 17, 2002 and, according to the monthly status report for June 2007, this program now has 102,765 customers. Progress' balanced bill program (BBP) was approved by Commission Order dated February 26, 2004 and, according to the monthly status report for June 2007, this program now has 56,711 customers.

When these programs were presented to the Commission for its consideration, the Public Staff, as well as the other intervenors, expressed a potential concern that these programs may lead to a lack of conservation by participants. In the Order approving Duke's FPP, the Commission required, among other things,

That the Public Staff shall monitor, on an ongoing basis, the impact, if any, that the FPP may have on energy conservation and Duke's system peak demand and shall make such reports to the Commission as it deems appropriate.

On June 8, 2007, Duke filed a request to revise its FPP. In the Public Staff's agenda item which presented this revision to the Commission for its consideration, the Public Staff stated that "FPP reports have indicated that, on average, customers who have

Kind Rebuttal  
Attachment 8



enrolled in this Program during the first couple of years have increased their energy usage and their contributions to the peak demand at higher levels than a typical residential customer." In the Order approving Progress' BBP, the Commission required that Progress shall provide annual program reports to the Public Staff. To date, the Public Staff has not yet commented on the Progress annual program reports.

Given the fact that these programs now have a history of operation (five years and three years, respectively) and in view of recent legislative developments, the Commission believes it is appropriate to investigate the impact of Duke's FPP and Progress' BBP on energy conservation and system peak demand.

IT IS, THEREFORE, ORDERED as follows:

1. That Duke and Progress shall file comments and any studies on the impact of these programs on energy conservation and peak demand not later than September 21, 2007; and
2. That the Public Staff and other intervenors shall be allowed to file reply comments not later than October 22, 2007.

ISSUED BY ORDER OF THE COMMISSION.

This the 21st day of August, 2007.

NORTH CAROLINA UTILITIES COMMISSION



Patricia Swenson, Deputy Clerk

mr082107.01





DUKE ENERGY CAROLINAS, LLC  
526 South Church St.  
Charlotte, NC 28202

Mailing Address:  
EC037 / PO Box 1006  
Charlotte, NC 28201-1006

LARA SIMMONS NICHOLS  
Associate General Counsel  
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lsnichols@duke-energy.com

**OFFICIAL COPY**

September 20, 2007

**FILED**

SEP 21 2007

Clerk's Office  
N.C. Utilities Commission

VIA OVERNIGHT MAIL

Ms. Renné C. Vance, Chief Clerk  
North Carolina Utilities Commission  
4325 Mail Service Center  
Raleigh, North Carolina 27699-4325

RE: Docket No. E-7, Sub 710  
Fixed Payment Program – Duke Energy Carolinas' Comments

Dear Ms. Vance:

Duke Energy Carolinas, LLC ("Duke Energy Carolinas" or the "Company") submits the original and 25 copies of Comments in response to the Commission's Order Requesting Further Information regarding the Company's Fixed Payment Plan program and a similar program offered by Progress Energy Carolinas, Inc. issued in this Docket and Docket No. E-2, Sub 847 on August 21, 2007.

If you have any questions, please let me know.

Sincerely,

Lara Simmons Nichols

pa

Enclosure

cc: Robert W. Kaylor, Esquire  
Parties of Record

Clark  
AG  
Bermie  
Kirby  
Watson  
Hawer  
Sessions  
Kite  
Ericson  
Jones  
Gruber  
3 Legal  
3 Acctg.  
2 Ec/Env.  
3 Elec.

Kind Rebuttal

Attachment 9



BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-7, SUB 710

**FILED**

**SEP 21 2007**

Clerk's Office  
N.C. Utilities Commission

In the Matter of	)	
Request by Duke Energy Carolinas, LLC	)	DUKE ENERGY CAROLINAS'
For Approval of a Levelized Billing Program	)	COMMENTS

Duke Energy Carolinas, LLC ("Duke Energy Carolinas" or the "Company") provides these Comments in response to the Commission's Order Requesting Further Information regarding the Company's Fixed Payment Plan ("FPP") program and a similar program offered by Progress Energy Carolinas, Inc. issued in this Docket and Docket No. E-2, Sub 847 on August 21, 2007. These Comments describe the FPP program and customer responses to the program and present the impact of the FPP program on energy conservation and system peak demand. As shown below, these impacts are in the range predicted when the FPP program was initially approved and consistent with the impacts of Duke Energy Carolinas' Equal Payment Plan which has been in place since 1958.

Duke Energy Carolinas requested Commission approval of the FPP program in 2002 based upon industry data indicating that certain customers highly value a payment option with bill amount certainty. The key benefits of FPP are certainty of a fixed bill amount for twelve months, irrespective of weather, the peace of mind that there will not be a settle up in the twelfth month, and for customers on the Automatic Payment Plan (bank draft) the convenience of knowing the exact amount drafted monthly. The Company's launched its FPP program in the summer of 2002. Currently 110,653 North Carolina customers participate in FPP representing 7.5% of residential customers.

Kind Rebuttal  
Attachment 9



The program renewal rates clearly show that customers electing to participate in FPP are extremely satisfied with the program and this satisfaction further leads to greater satisfaction with Duke Energy Carolinas. The initial FPP renewal campaign in the summer of 2003 resulted in a 90% renewal rate. The nine renewal campaigns have produced response rates ranging from 83% to 95%, with an average of 90% for all campaigns. Market research studies conducted in 2004 and 2007 indicate that FPP customers have high satisfaction with the program and higher satisfaction with Duke Energy than customers not participating in FPP. Although the unit of measures changed from 2004 to 2007, survey results were:

- 2004 – On a scale of 1 to 10 the average Duke Energy residential customer satisfaction with Duke Energy was 8.45 compared to FPP customer satisfaction of 9.07.
- 2007 – On a scale of 1 to 10, 84.6% of non-FPP customers and 91.4% of FPP customers rating their satisfaction with Duke Energy an 8, 9 or 10.

Therefore, Duke Energy Carolinas' experience is consistent with the industry data that lead it to adopt FPP, this program provides customers with a highly valued billing option.

In its Order Approving Fixed Payment Program for Residential Customers issued on July 17, 2002, the Commission noted that the potential impact on energy conservation did not appear to go significantly beyond that experienced under Equal Payment Plan, a payment plan to which no party objected.

Any levelized billing program, either with a true-up (as in Equal Payment Plan), or without a true-up (as in FPP), can result in increased usage by the customer as the price impact of increased usage is delayed. Under Equal Payment Plan this increase is



captured in the annual true-up amount. In FPP, this increase is factored into the fixed payment amount. FPP includes a usage adder to reflect the expected change in customer usage. In addition, FPP includes a risk premium to recover the increase in uncertainty about the degree of cost recovery relative to the standard tariff. Customers are advised prior to enrollment that their payment under FPP may be as much as 10% higher than under the standard rate schedule. For both Equal Payment Plan and FPP, increased usage in a 12 month billing period results in a higher monthly payment for the following program year.

At the inception of FPP the Company relied on its Equal Payment Plan usage data in order to estimate the increased usage for FPP customers. Then the Company began capturing actual FPP usage data in order to estimate increased usage for purposes of developing customers' monthly fixed payments. The usage adders used in developing the customers' fixed payments have been adjusted based on the trends shown in the data. Each year, the Company collaborates with the Public Staff and the Attorney General to determine the appropriate usage adders. The table below shows the factors currently in use for developing customers' monthly fixed payment amounts. The adders are designed to capture the increased usage as well as compensate the Company for increased risk in accepting a fixed payment amount.



	Year on FPP			
	1	2	3	4 or greater
Usage Adder	5.00%	4.0%	0.0%	0.0%
Normal Growth	0.30%	0.3%	0.3%	0.3%
Price Response Factor	1.66%	1.7%	1.7%	0.0%
Subtotal	6.96%	5.96%	1.96%	0.30%
Value at Risk Factor	2.16%	2.16%	2.16%	2.16%
Total FPP Adder	9.12%	8.12%	4.12%	2.46%
Rounded Adder	9.1%	8.1%	4.1%	2.5%

The Company has compared the actual metered usage data of FPP customers to predicted usage data based on actual weather experience to approximate the increased usage that is anticipated to occur with a fixed monthly payment. Data has been gathered from eight enrollment campaigns involving twenty 12-month periods. Sufficient data exists to show the trends exhibited by customers in their first year, second year and third year on the program. However, data for years four or greater is not yet sufficient to analyze. The usage data is adjusted to exclude impacts of changes due to temperature, but includes what would be considered normal growth in customer usage. This average increased usage data is presented in the table below.

Usage Increase - Actual vs. Predicted	Percent Increase
Year 1 on FPP, average of all campaigns	9.3%
Year 2 on FPP, average of all campaigns	2.9%
Year 3 on FPP, average of all campaigns	1.3%

This data demonstrates that, as predicted and as seen with Equal Payment Plan customers, FPP customers on average have increased their energy usage somewhat in the first couple of years; however, this trend quickly declines as customers remain on the program.



The Company has also gathered data related to the impact of FPP on peak demand. Load research data has been gathered for a statistical sample of FPP customers and compared to a control group of customers with similar load profiles. The Company has found that the impact the FPP sample population indicates a higher usage at time of peak than the control group. However, the overall impact on the Company's peak is insignificant given that the kilowatt hour sales to customers on FPP are a small percentage, about 2%, of the Company's total kilowatt hour sales. In 2004, the FPP sample population showed 31% higher usage than the control group, which would affect the system peak by 0.3%. This trend has declined year by year. In 2006, the FPP sample population showed 11% higher usage, which would affect the system peak by 0.2%. Analysis of the 2007 peak in August has not been completed yet. Because a residential customer's air conditioning is likely to be operating continuously during the hours around the summer peak hour, it seems improbable that that an FPP customer uses more energy at the time of peak than a non-FPP customer. The impact on peak implied by the data may be attributable to unidentified differences between the FPP sample and the control group.

As indicated in Duke Energy Carolinas' Energy Efficiency Plan filed in Docket No. E-7, Sub 831, the Company seeks to aggressively pursue new energy efficiency programs. The Company believes that in order to be successful in this effort it must make energy efficiency for customers something that is as automatic or "back of mind" as energy usage. As such, Duke Energy Carolinas' efficiency programs must be designed to both provide additional benefits and minimize adoption barriers.

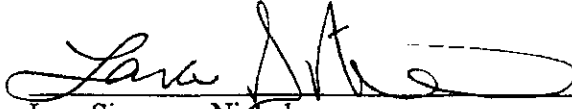


Even with a premium price, participation in FPP has demonstrated its appeal among customers. Managing the size of the bill with a known level of certainty and predictability has met the needs of many customers. Duke Energy Carolinas is exploring options that capitalize on the appeal of FPP while delivering energy efficiency results. Coupled with demand response and conservation options, these programs could deliver bill reduction, certainty and predictability benefits to customers, thus expanding and accelerating customer adoption of efficiency measures. Initial customer research shows that energy efficiency options packaged with a fixed bill increases customer interest, involvement and likely participation. The Company will look for opportunities to incorporate FPP with energy efficiency options thereby both increasing the likelihood of participation in energy efficiency programs as a whole and increasing energy conservation on the part of FPP customers.

Based upon the above discussion, Duke Energy Carolinas believes that the Fixed Payment Plan is a voluntary billing option with exceptionally high customer satisfaction. As expected, FPP has a similar effect on usage as the Company's Equal Payment Plan and on average causes increased usage within expected limits during the early years of program participation, but does not significantly impact system peak demand. Duke Energy Carolinas will continue to evaluate the opportunity to couple FPP with energy efficiency options for customers. Therefore, Duke Energy Carolinas should continue to offer this valued billing option to its North Carolinas retail customers.



Respectfully submitted this the 20<sup>th</sup> day of September, 2007.



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919.828.5250  
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ATTORNEYS FOR DUKE ENERGY CAROLINAS



CERTIFICATE OF SERVICE

Docket No. E-7, Sub 710

I certify that a copy of the foregoing Application was sent by regular U.S. mail or overnight mail to the persons listed below this 7th day of May, 2007.

Len Anthony, Deputy General Counsel  
Progress Energy Carolinas, Inc.  
Regulatory Affairs / PEB 17A4  
P. O. Box 1551  
Raleigh, NC 27602-1551

James P. West  
West Law Offices, P.C.  
P. O. Box 1568  
Raleigh, NC 27602

This the 20<sup>th</sup> day of September, 2007.



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September 20, 2007

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N.C. Utilities Commission

(ST)  
AG  
7-Comm  
Bennink  
Kirby  
Watson  
Hosner  
Sessions  
Kite  
Ericson  
Gruber  
3-ps Legal  
3-ps Acctg  
2-ps E&R  
3-ps Electric

Ms. Renne Vance, Chief Clerk  
North Carolina Utilities Commission  
P. O. Box 29150  
Raleigh, North Carolina 27626-0510

RE: Comments Regarding Residential Balanced Bill Payment Plan  
NCUC Docket No. E-2, Sub 847

Dear Ms. Vance:

Pursuant to the Commission's Order dated August 21, 2007, in the above referenced docket, Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. (hereinafter "PEC") submits an original and thirty-two (32) copies of its Comments Regarding the Impact of Residential Balanced Bill Payment Plan on Customer Consumption. PEC believes that the Balanced Bill Payment Plan does increase customer usage, but has a minimal impact on system peak demand. PEC further believes that this payment option is highly valued by participants and represents a minimal risk to non-participants and therefore should continue to be promoted.

Very truly yours,

Len S. Anthony  
Deputy General Counsel - Regulatory Affairs

LSA

Attachments



SEP 20 2007

Clerk's Office  
N.C. Utilities Commission

## Progress Energy Carolinas - Comments on the Impact of the Residential Balanced Bill Payment Plan on Customer Consumption

**Background:** Progress Energy Carolinas (hereinafter "PEC") introduced its Residential Balanced Bill program in March 2004 based upon industry data that customers highly valued the bill certainty provided by this type of payment option. Industry evidence showed that customers like a guaranteed billing option and are willing to pay a fee for that guarantee.

### Increased Usage:

Although a formal study is not available, PEC routinely compares actual and predicted usage for Balanced Bill participants. PEC predicts participant usage based upon the most recent 24 months of a customer's historic usage, adjusted to reflect normal weather. The following table reflects PEC system data comparing predicted usage based upon the prior 24 months to actual usage (both are adjusted to reflect normal weather) during the program year for all completed 12 month contract terms:

Participant Year	Enrollment	% Change from Predicted Usage (Excludes any adjustment due to the Usage Adder)
First	76,213	6.94%
Second	47,242	2.99%
Third or More	22,285	1.68%

It is important to note that while the table shows changes from a prior 24-months usage, it should not be interpreted as changes from what was consumed prior to being billed under the Balanced Bill plan. That is, these percentages do not represent a true change in consumption caused by the program. This may be best illustrated by an example. If you assume a customer uses 1,000 kWh every month for 24 months before requesting Balanced Bill, based upon the above table, PEC would then expect monthly usage to increase to 1,069 kWh (1000 kWh plus 6.94%) during the first Balanced Bill year. The second year calculation would then be based upon the prior 24 months usage, the average monthly usage being 1,035 kWh (average of 1,000 kWh in the first 12 months and 1,069 kWh in the second 12 months). Again based upon the above table, PEC would expect a monthly usage of 1,066 kWh (1,035 kWh plus 2.99%) during the second Balanced Bill year. The third year calculation would then be based upon the prior 24 months usage, the average monthly usage being 1,068 kWh (average in the first 12 months of 1,069 kWh and 1,066 kWh in the second 12 months). Based upon the above table, PEC would expect a usage of 1,086 kWh (1,068 kWh plus 1.68%) during the third Balanced Bill year. Ignoring all other factors that impact usage except weather, the increase in usage after 3 years of participation in the Balanced Bill plan is therefore 8.6%. This result concurs with PEC's experience with its Equal Payment Plan, established pursuant to Rule R8-44, which found a similar increase in usage.



**Impact on Peak Demand:** PEC does not have any data regarding the impact of its Balanced Bill program on peak demand. In creating the Balanced Bill plan, PEC discussed the issue of impact on system peak demand with its consultant, Christensen and Associates, and concluded that Balanced Bill would not have a significant impact on the system peak. Our consultant explained that the primary lifestyle change customers implement when changing to a fixed payment plan is to adopt more comfortable HVAC settings. On the peak day when outdoor temperatures approach or exceed 100 degrees, a customer's air conditioning system is operating continuously regardless of whether the thermostat is set at 78 degrees or at 75 degrees; therefore, the impact on the utility's demand does not change. There is an obvious gain in kWh sales during non-peak hours due to increased HVAC usage, but there is little or no impact on the system peak hour. The consultant's view was based primarily on load research conducted by Georgia Power. Representatives of Georgia Power indicated that their load research was conducted to assess usage for specific customers before and after the account received service under a fixed bill payment plan. This approach eliminates any selection bias that may be introduced if you tried to compare a Balanced Bill customer group with a comparable customer grouping of non-Balanced Bill customers. Georgia Power concluded that their customers' demand contribution to the system peak hour was virtually the same before and after the customers received the fixed bill payment option. More recently, PEC has spoken with representatives of Gulf Power, whose load research reached the same conclusion that Georgia Power reached: that there is minimal impact on system peak demand due to a fixed payment plan option. Based on the information received from our consultant and the results of the studies conducted by Georgia Power and Gulf Power, PEC does not believe that the Balanced Bill payment option has a significant impact on the system peak demand.

**Customer Satisfaction:** PEC experience to date shows that nearly 95% of Balanced Bill participants elect to continue the Balanced Bill payment plan when renewal letters are offered. This renewal rate is exceptionally high for an optional utility product and indicates that customers value the bill certainty offered with this type of service. Additionally, PEC employed Bellomy Research, Inc. to conduct telephone surveys in 2005 and 2006 to assess customer satisfaction with the Balanced Bill program. Bellomy Research concluded that Balanced Bill achieved an overall satisfaction rating of 87% in 2006. The survey also found that few customers experienced problems with the administration of the program and were likely to continue the Balanced Bill program because the customers like knowing the amount of their monthly bill. Bellomy Research concluded that overall satisfaction was so high that there is little room for improvement in the program.

PEC has also found that different products appeal to different customers and offering many diverse products and services is viewed positively by customers. While products such as electronic billing, bank drafts, Green Power, credit card payments, outdoor lighting or fixed bill plans don't appeal to all customers, many customers find such products to be highly valued and view PEC positively for offering them.



**Conservation:** PEC encourages all Balanced Bill participants to practice conservation to reduce their future Balanced Bill payments. This is accomplished by proactively providing an "Energy Conservation" fact sheet to all participants in our confirmation letter acknowledging their request for Balanced Bill service. Additionally, PEC advises the customer by letter and sends this same fact sheet if their usage exceeds predicted levels by 30% or more for three consecutive months to help the customer avoid automatic removal from the payment plan.

**Future Demand Side Management and Energy Efficiency (DSM and EE) Opportunities:** PEC is actively engaged in developing new DSM and EE programs to encourage customers to reduce and shift usage. PEC believes that high customer satisfaction with Balanced Bill gives customers greater confidence in other PEC programs, including DSM and EE. Furthermore, the use of home energy monitors could be used to educate Balanced Bill customers on their energy usage and the potential impact on future Balanced Bill offers. PEC believes Balanced Bill will be an excellent marketing channel to more effectively meet our customers' overall energy requirements.

**Conclusions:** PEC believes that levelized payment plans, such as Balanced Bill or the Equal Payment Plan, do cause a customer to initially increase usage for one to three years, but do not significantly increase the system peak demand. Balanced Bill is a highly valued payment option by over 55,000 customers today in North Carolina representing over 5% of residential accounts. Renewal rates indicate that nearly 95% of participants request to continue on the program after the first year highlighting the overall satisfaction with the plan. It is also anticipated that offering Balanced Bill will enhance acceptance of other utility programs, in particular future DSM and EE offerings. Overall, PEC concludes that Balanced Bill meets customer needs with only minimal risk impact on generation additions and therefore should continue to be offered.



**AQUILA INC.  
AQUILA NETWORKS-MISSOURI (ELECTRIC)  
CASE NO. EO-2007-0395  
OFFICE OF PUBLIC COUNSEL  
DATA REQUEST NO. OPC-2024**

**DATE OF REQUEST:** May 25, 2007

**DATE RECEIVED:** May 25, 2007

**DATE DUE:** June 11, 2007

**REQUESTOR:** Ryan Kind

**REQUEST:**

The Bill Determination section of Aquila's proposed tariff states "The annual weather normalized kWh (WNkWh) will be increased by additional kWh (kWhG) to reflect expected consumption changes and other growth factors." Please identify and fully explain the "other growth factors" that are referenced in this quote.

**RESPONSE:**

The additional kWh (kWhG) reflects factors that can cause contractual consumption to differ from normal-weather consumption for reasons other than weather effects. These factors include 1) normal growth by the average customer from one year to the next; 2) additional consumption that constitutes changes in consumption patterns resulting from participation in fixed billing; 3) self-selection by customers who know more about their plans for the coming year than does the provider at the time a forecast is generated.

**ATTACHMENTS:** None

**ANSWERED BY:** Gail Allen

**DATE COMPLETED:** June 8, 2007



**AQUILA INC.  
AQUILA NETWORKS-MISSOURI (ELECTRIC)  
CASE NO. EO-2007-0395  
OFFICE OF PUBLIC COUNSEL  
DATA REQUEST NO. OPC-2005**

**DATE OF REQUEST:** May 25, 2007

**DATE RECEIVED:** May 25, 2007

**DATE DUE:** June 11, 2007

**REQUESTOR:** Ryan Kind

**REQUEST:**

Please provide a copy of all presentations, reports, memos, etc. that have been provided to one or more members of Aquila's management regarding the existing Aquila Fixed Bill Pilot Program.

**RESPONSE:**

See attached PowerPoint presentation given by Maurice Arnall to Aquila Leadership Team on Nov. 9, 2004 in preparation for the original program filing. In addition, Aquila management has been provided with the same reports that Aquila has filed with the PSC regarding the results of the existing program.

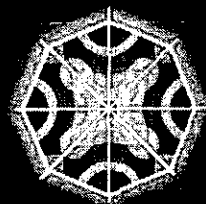
**ATTACHMENTS:**

OPC-2005 Fixed Bill Mgt Presentation.ppt

**ANSWERED BY:** Charles Gray

**DATE COMPLETED:** June 6, 2007





Aquila

# Missouri Fixed Bill Pilot

*Maurice Arnall*  
*Director*  
*Regulatory Services*





## ***What Should Aquila expect from Fixed Bill?***

- **Healthy growth mostly off-peak**
  - Small peak effects
- **High customer satisfaction and renewal**
- **Reduced deferral payments and bad debt**
- **Good penetration rates with attractive premiums**
- **Strong interest from budget bill customers**
- **Manageable risks**
  - Natural hedge against the weather