## COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

### In the Matter of:

THE APPLICATION OF FLEMING MASON ENERGY	)	
COOPERATIVE CORPORATION FOR A	)	
CERTIFICATE OF PUBLIC CONVENIENCE AND	)	CASE NO.
NECESSITY TO CONSTRUCT FACILITIES	j	2011-00058
ACCORDING TO THE APPLICANT'S 1/01/2011 ~	)	
12/31/2012 CONSTRUCTION WORK PLAN	j	

### **RESPONSE OF:**

FLEMING MASON ENERGY COOPERATIVE, INC. ("FME") TO THE

### "FIRST INFORMATION REQUEST OF COMMISSION STAFF TO FME"

FOR COMMISSION'S ORDER 2011-00058

DATED JULY 27, 2011

FILED: AUGUST 11, 2011

The Witnesses for All Response Contained Hereinafter:

Gary Grubbs, P.E. ~ Consulting Engineer for BGE

Brandon Hunt ~ FME

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### VERIFICATION

COMMONWEALTH OF I	KENTUCKY	) ) SS:		
COUNTY OF SHELBY		)		
The undersigned, Gary Consulting Engineer for I forth in the response for contained therein are trubelief.	BGE, and that he or which he is it	has personal kidentified as the	nowledge of the matt witness, and the a	ers set nswers
Subscribed and sworn to State, this \( \frac{11^{\mathre{\pi}}}{\text{day of }} \)	before me, a No	tary Public in an	id before said Count	y and
(SEAL)		Danise ID # 44	Notary Public	
My Commission Expires: $7/13/2015$				

### VERIFICATION

COMMONWEALTH OF KENTUCKY	)
COUNTY OF FLEMING	) SS:

The undersigned, **Brandon Hunt**, being duly sworn, deposes and says that he is System Engineer for FME, and that he has personal knowledge of the matters set forth in the response for which she is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Brandon Hunt



Notary Public

My Commission Expires:

28 JUNE 14

### CASE NO. 2011-00058

### Response to Commission Staff's First Data Request Dated July 27, 2011

### **Question No. 1**

- Q1. Refer to Fleming Mason Energy's 2011-2012 Construction Work Plan ("CWP"), Section I.A., Executive Summary, Purpose, Results, and General Basis of Study. Page 1 contains a table of classification of customer tables. One of the classifications is Other. Explain what type of customers fits in the Other category.
- A1. The "Other" classification is public street lighting.

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### **Question No. 2**

Witness: Brandon Hunt

Q2. Refer to Fleming Mason Energy CWP, Section I.E., Executive Summary, Summary of Construction Program and Costs. Pages 4 and 5 contain a summary of (1) recommended distribution plant changes and (2) construction program costs. The following table replicates the costs shown for both categories:

Recommended Distribution Plant Changes:

Year 2011 2012 Total

\$4,837,668 \$4,837,668 \$9,675,336

**Construction Program Costs:** 

Year 2011 2012 Total

\$3,383,830 \$3,544,676 \$6,928,506

- a. Explain the differences between the amounts for the two categories.
- b. Provide the same information for 2010 with an explanation of any differences in the amounts of recommended distribution plant changes and construction program costs.

A2. a. Both categories should have read:

Year 2011 2012 Total

\$3,383,830 \$3,544,676 \$6,928,506

b. Recommended Distribution Plant Changes:

Year 2010 ~ \$3,200,703

**Construction Program Costs:** 

Year 2010 ~ \$3,200,703

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### Response to Commission Staff's First Data Request Dated July 27, 2011

#### **Question No. 3**

Witness: Brandon Hunt

- Q3. Refer to Fleming Mason Energy's CWP, Section I.D., Executive Summary, Historical and Projected System Data, Pages 8 through 10.
  - a. The annual total distribution non-coincident peak ("NCP") load factor was
     52.6 percent for 2009. Provide the annual total distribution NCP load factor for 2010
     with an explanation of the change from 2009.
  - b. The 2008-2009 non-coincident winter distribution peak for Fleming Mason Energy was 202.9 MW, established during January 2009. Provide the non-coincident winter distribution peak for 2009-2010 with an explanation of the changes from 2008-2009.
  - c. During December 2009, the system served approximately 23,792 customers with each residential consumer averaging 1,245 kilowatt-hours each. Provide the same information for December 2010.

### **A3.**

a. The 2010 NCP load factor was 57.9 percent. The change from 2009 was in part due to the decreased demand from 2009 to 2010.

- b. The January 2009 peak of 202.9 MW did include EKPC direct serve customers. The footnote in Section II.D., Basis of Study and Proposed Construction, Historical and Projected System Data, Page 8, should not exist. The non-coincident winter distribution peak for 2009-2010 was 175.7 MW. This decrease was mainly due to weather and non-extreme winter temperatures.
- c. In 2010 the residential customers averaged a usage of 1,365 kilowatt-hours.

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### Question No. 4

- Q4. Refer to Fleming Mason Energy's CWP, Section II.D.5., Basis of Study and Proposed Construction, Historical and Projected System Data, System Outages and Reliability. For the five years from 2005 to 2009, Fleming Mason Energy's consumer outage average is 14.97 hours per consumer per year. Provide the consumer outage average in hours-per-consumer for 2010.
- A4. The consumer outage average in hours-per-consumer in 2010 was 1.83 hours (excluding MED).

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#### Question No. 5

- Q5. Refer to Fleming Mason Energy's CWP, Section III, Required Construction Items.
  - a. During the 24-month period ending January 2009, Fleming-Mason Energy added 890 underground and overhead services for new consumers. Provide the number of underground and overhead services for new consumers added from February 2009 through December 2010.
  - b. The distribution line construction estimate for 740C 300 is \$2,482,285 including line conversions and changes (which does not include copper replacement). No new tie-lines are required or recommended. Explain why the proposed distribution line system improvement does not include copper replacement.
  - c. Fleming Mason Energy's in-service poles have been inspected twice during two prior pole-inspection cycles. Describe the pole-inspection cycle and indicate how often poles inspected.
  - d. For the 24-month period ending June 30, 2010, Fleming Mason Energy increased the number of security lights in service by approximately 340 units. On the basis, Fleming Mason Energy is expected to install 270 new lights during the next two years. Explain why there is a projected decrease of installed units, from 340 to 270, over the next two years and provide the number of new lights that has been installed since July 1, 2010.

A5.

a. New Consumers: Overhead Service ~ 419

**New Consumers: Underground Service ~ 390** 

b. The statement, "does not include copper replacement" implies that FME did not budget specific funds to replacement copper conductor on random locations of our system by using the blanket budget process. However, specific jobs listed in the CWP list the replacement of copper conductor as part of the area improvement to satisfy the System Design Criteria.

- c. FME is currently on a pole inspection cycle that will cover all poles at a rate of once per five years.
- d. For the historical comparison period, in 2008 FME installed 135 units and for 2009 FME installed 126 units. On this basis FME anticipated for the years of 2011 and 2012 FME would install approximately 135 units per year. For the time period from July1, 2010 to June 30, 2011 FME has installed 236 units.

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#### Question No. 6

Witness: Brandon Hunt

- Q6. Refer to Exhibit Q, page 1 of 28.
  - a. Explain how the Future System before Improvements Losses (\$/Yr) of \$5,623 was determined. Provide all necessary calculations.
  - b. Explain how the Future System after Improvements Losses (\$/Yr) of
     \$2,433 was determined. Provide all necessary calculations.
  - c. Many of the projects listed in Exhibit Q contain an explanation for the Alternative Corrective Plans(s) Investigated stating that the "Proposed Project is consistent with current LRSS." For each such project Explain how it is consistent with the current LRSS and state whether any alternative corrective plans were investigated.

A6.

a. The Milsoft™ model was used to run a report to determine the instantaneous kW losses at the time of the recreated modeled system peak before project improvements were made. This value was used to calculate a rough estimate of yearly losses on the particular area that the project involved. Reducing losses is usually not the primary objective for justification of a CWP project. However, it is an important secondary objective, and we feel that it is worth mentioning when it is applicable to a CWP item.

Peak Instantaneous Losses (PIL): 26.23 KW

Load Factor (LDF): 0.52

Loss Factor (LSF):  $(0.2*LDF)+(0.8*(LDF)^2) = 0.32$ 

Average Losses (AL): (PIL) \* (LSF) = 8.4 KW

Yearly Energy Losses (YEL): 8760 \* (AL) = 73,601 kWh

kW Charge: \$6.02

kWh Charge on peak: \$0.05328

kWh Charge off peak: \$0.04455

Annual Losses: ((6.02\*PIL)\*12)+((0.7\*YEL\*0.05328)+(0.3\*YEL\*0.04455)) = \$5,623.59

b. The same method was used as above, with the exception that the loss report was ran on the model after project improvements were made. The same calculations were followed in the variable of Peak Instantaneous Losses changed to the new value of 11.35 kW.

c. See Exhibit A.

### CASE NO. 2011-00058

### Response to Commission Staff's First Data Request Dated July 27, 2011

**Question No. 7** 

Witness: Gary Grubbs

- Q7. Explain how the estimated interest rate of four percent was determined for the anticipated annual additional cost of operation after completion of all CWP projects.
- A7. The four percent (4%) was an approximation based upon projected RUS rates that would be available.

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#### **Question No. 8**

Witness: Brandon Hunt

- Q8. Paragraph 12 of the application states that Fleming Mason Energy does not intend to incur any additional debt for any of the proposed projects contained in the 2011-2012 CWP and that those projects will be financed with internally generated funds. The CWP, Section 1.A. Executive Summary: Purpose, Results and General Basis of Study, states that the proposed construction programs are to be financed by the Rural Utilities Service ("RUS") and/or a supplemental lender.
  - a. Confirm whether Fleming Mason Energy will need to incur additional debt in funding the proposed construction projects or whether they will be financed by internal funds.
  - b. If additional debt is needed, identify the supplemental lender in addition to RUS

A8.

- a. Fleming Mason Energy does not intend to incur any additional debt for any of the proposed projects contained in the 2011-2012 CWP. Projects will be financed with internally generated funds.
  - b. No additional debt is needed.

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### Response to Commission Staff's First Data Request Dated July 27, 2011

### **Question No. 9**

- Q9. Refer to the CWP, Section 1.A. Executive Summary: Purpose, Results and General Basis of Study. The second paragraph states that the CWP is for the two year period from January 1, 2010 through December 31, 2012. Confirm the two-year period for the CWP is from January 1, 2011 through December 31, 2012
- A9. The two-year period for the CWP is from January 1, 2011 through December 31, 2012.

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### Response to Commission Staff's First Data Request Dated July 27, 2011

### **Question No. 10**

- Q10. Refer to the Executive Summary of the 2011-2012 CWP, Section I.E. Summary of Construction Program and Costs.
  - a. For the 2011-2012 CWP, approximately 37 percent of the proposed expenditures is for new construction and 63 percent is for system improvements. For each of the previous five years, provide a breakdown of the capital expenditures between new construction and system improvements.
  - b. Refer to the final paragraph of this section regarding the eligibility for RUS loan funds and Exhibit 2 to the application, Anticipated Annual Additional Cost of Operation after Completion of all CWP Projects. Explain whether Fleming Mason Energy anticipates the interest rates on the RUS loan to be four percent.

### A10.

a.

-	NEW CONSTR	SYSTEM IMPROV	TOTAL	%
2006	\$1,767,553	\$3,563,195	\$5,330,748	33.16%
2007	\$1,952,168	\$2,587,342	\$4,539,510	43.00%
2008	\$1,756,725	\$2,213,645	\$3,970,370	44.25%
2009	\$1,145,631	\$2,137,282	\$3,282,913	34.90%
2010	\$1,455,887	\$1,744,816	\$3,200,703	45.49%

b. FME is not requesting RUS funding for this CWP.

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**Question No. 11** 

Witness: Brandon Hunt

Q11. Refer to the Required Construction Items section of the 2011-2012 CWP, Section III.E.6., Miscellaneous Distribution Equipment: Poles. Fleming Mason Energy proposes to replace 300 poles each year for the two-year CWP period at a cost of \$2,344 per pole. Explain how Fleming Mason Energy arrived at the estimated pole cost.

A11. Exhibit B in the CWP shows the amount of pole changes of the two complete preceding years. An average of these years was used to estimate the number of pole changes for 2011 and 2012. Cost associated with pole changes was determined likewise. Inflation was added to the average cost of a pole change for 2012.

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Response to Commission Staff's First Data Request Dated July 27, 2011

**Question No. 12** 

Witness: Brandon Hunt

Q12. CWP Executive Summary, Page 11, Section III. A. mentions that the average line extension cost for each new service is approximately \$2,050. How did Fleming Mason Energy arrive at the average cost of \$2,050 for underground and overhead services for new customers? Provide all necessary calculations.

A12. Exhibit B in the CWP shows the necessary calculations for arriving at the average cost of \$2,050 for underground and overhead services. Historical numbers from 2008 and 2009 were used to find the average cost per new customer and the average footage of a service provided to a new customer. These figures were used to estimate the average cost of service for 2011 and 2012.

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Response to Commission Staff's First Data Request
Dated July 27, 2011

**Question No. 13** 

- Q13. Refer to Exhibit E, page 2 of 3. Regarding RUS Ref No. 601, describe the type of single-phase meters Fleming Mason Energy proposes to install for new customers and explain how Fleming Mason Energy arrived at the average cost of \$100 per meter.
- A13. Fleming Mason Energy is currently installing Landis & Gyr Focus meter class 200 for all single phase customers. Historical numbers from 2008 and 2009 were used to find the average cost per single phase meter in those two years respectively. These figures were used to estimate the average cost of single phase meters for 2011 and 2012. Meters are capitalized when purchased.

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Response to Commission Staff's First Data Request

**Dated July 27, 2011** 

Question No. 14

Witness: Brandon Hunt

Q14. Explain whether Fleming Mason Energy has contacted other electric utilities in Kentucky

in order to determine what other Automated Meter Reading ("AMR") systems are in use

and how the perform.

A14. Fleming-Mason Energy has been evaluating AMR systems for many years. We

have visited cooperatives all over the state of Kentucky as well as visiting

cooperative and municipal systems in Tennessee, Georgia, Florida, Indiana, and

Ohio. Our staff takes every opportunity to discuss the benefits and potential

pitfalls with all the major AMR vendors.

One of the major reasons that an investment has not been made is due to the fact

that many of the cooperatives that have implemented AMR are only using a small

portion of the projected benefits. Quite often, utilities have simply replaced

manual meter reads with automated reads with no other benefits from the system.

Fleming-Mason Energy is very serious about implementing an AMR system that

will help do more than just read meters. Any system must be able to integrate with

our Outage Management System (OMS), billing system and be verifiably functional

in other operational areas. The other applications that we may be implementing

includes demand-side management, direct load control, prepay metering, remote

disconnects, and a means of providing voltage and load details. We anticipate making some decisions concerning our future AMR direction early this fall. We plan to keep the Commission fully informed as to our direction and when a final decision is made will make appropriate filings.

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### Response to Commission Staff's First Data Request Dated July 27, 2011

**Question No. 15** 

- Q15. Identify whether there are any additional costs in the 2011-2012 CWP.
- A15. At this time there are no additional costs in the 2011-2012 CWP.

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### Response to Commission Staff's First Data Request Dated July 27, 2011

#### **Question No. 16**

Witness: Brandon Hunt

- Q16. Refer to Exhibit C to the CWP, which provides an updated status for the 2008-2010 Construction Work Plan projects.
  - a. For those projects whose status is either labeled Deleted of Deferred, provide a detailed explanation as to why that particular project has been deleted or deferred.
  - b. Under the column labeled Project Description, explain what is meant by "Various to Various."

A16.

a. <u>Project #306 ~ Deferred</u>: Growth in this area was not as predominant as projected. To keep project cost to a minimum it was determined to be more cost effective to install a voltage regulator in the area to maintain system voltage as opposed to a voltage conversion project.

<u>Project #331 ~ Delete</u>: Project 313 of the 2011-2012 CWP will improve voltage in the same service area that this project covered.

<u>Project #348 ~ Delete</u>: This project was to improve a tie-lie between two substations. To keep project cost to a minimum, this project was removed.

<u>Project # 357 ~ Deferred</u>: This project was in conjunction with Project #348 and was deleted for the same reasons above.

b. The "Various to Various" projects are voltage conversion projects and should be labeled likewise. The "Various to Various" label meant that on the project there were various conductor sizes and potentially both single and three phase lines.

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Response to Commission Staff's First Data Request
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**Question No. 17** 

Witness: Brandon Hunt

Q17. Explain whether Fleming Mason Energy has plans to implement any Demand Side Management programs.

A17. Fleming-Mason Energy works hard with our members concerning demand-side management. We have fully participated in the East Kentucky Power programs such as Button Up, Geothermal rebates, Commercial Lighting, MACED on-bill financing, Direct Load Control, and many others. These programs have been filed with the Commission during East Kentucky Power filings on DSM programs.

Fleming-Mason Energy is analyzing the effectiveness of these programs and plans to enhance and further improve our DSM offerings. We believe that it is an important strategy moving forward.

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### Response to Commission Staff's First Data Request Dated July 27, 2011

### **Question No. 18**

Witness: Brandon Hunt

- Q18. Refer to the Executive Summary of the 2011-2012 CWP, Section I.A. Purpose, Results, and General Basis of Study. This section states that the "2012 projected number of consumers and total peak system load were taken directly from the Cooperatives 2010 Load Forecast Report (LFR) as approved by RUS."
  - a. Provide a copy of the RUS approval of Fleming-Mason Energy's
     2010 Load Forecast Report.
  - b. Provide a copy of Fleming Mason Energy 2010 Load Forecast Report.

A18.

- a. Attached as Exhibit B
- b. Attached as Exhibit C

### **APPENDIX "A"**

### FLEMING MASON ENERGY RESPONSE TO COMMISSION'S FIRST DATA REQUEST

### Q6c

Reference Number	Miles	Existing Construction	Proposed Construction	Consistent with LRSS Planning Criteria Number	Alternative Corrective Plans
300	2.60	1ø 4 ACSR	3ø 1/0 ACSR	3).	Single Phase Voltage Conversion
301	1.50	3ø 6 ACWC	3ø 1/0 ACSR	6).	None
302	3.60	1ø 2 ACSR	3ø 2 ACSR	3).	None
303	20.50	25 kV conversion	25 kV conversion	4).	Multiphasing and conductor replacement
304	3.20	25 kV conversion	25 kV conversion	4). & 5).	None
305	3.30	1ø 4 ACSR	2ø 2 ACSR	3).	None
307	24.30	25 kV conversion	25 kV conversion	1). & 4).	Load Transfer
309	0.20	1ø 2 ACSR	1ø 2 ACSR	3).	None
310	4.30	1ø 4 ACSR	1ø 4 ACSR	1). & 3).	Load Transfer and Regulator
311	0.21	1ø 6 ACWC	2ø 1/0 ACSR	3).	None
313	37.80	25 kV conversion	25 kV conversion	1).	None
314	7.50	1ø 4 ACSR	3ø 1/0 ACSR	1). & 3).	Different Path for 3 phase upgrade
316	13.15	1ø 6 ACWC	3ø 1/0 ACSR	3).	None
317	2.20	1ø 6 ACWC	3ø 1/0 ACSR	3). & 6).	None
319	17.10	1ø 4 ACSR	1ø 4 ACSR	4).	Multiphasing
320	4.70	25 kV conversion	25 kV conversion	1). & 3).	None
322	4.90	1ø 2 ACSR	1ø 2 ACSR	1). & 3).	Multiphasing
323	0.40	1ø 4 ACSR	1ø 2 ACSR	3).	Multiphasing
324	0.40	1ø 2 ACSR	3ø 2 ACSR	3).	None
325	1.50	1ø 4 ACSR	3ø 336 ACSR	1).	Load Transfer
327	0.32	1ø 4 ACSR	3ø 1/0 ACSR	3).	None
328	0.62	1ø 6 HDCU	3ø 336 ACSR	3).	Load Transfer
329	0.83	1ø 4 ACSR	3ø 1/0 ACSR	3).	None
330	0.50	1ø 2 ACSR	3ø 1/0 ACSR	3).	None
332	1.50	1ø 4 ACSR	1ø 4 ACSR	1). & 3).	Multiphasing
333	6.50	1ø 4 ACSR	3ø 1/0 ACSR	6).	None
336	10.00	1ø 4 ACSR	1ø 4 ACSR	1). & 3).	Multiphasing

APPEDIX "B" A18.a.

# Fleming-Mason Energy Cooperative

2010 Load Forecast

Prepared by:
East Kentucky Power Cooperative, Inc.
Resource Planning Department

August 2010

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# Introduction Executive Summary

Fleming-Mason Energy Cooperative (Fleming-Mason Energy) located in Flemingsburg, Kentucky, is an electric distribution cooperative that serves members in eight counties. This load forecast report contains Fleming-Mason Energy's long-range forecast of energy and peak demand.

Fleming-Mason Energy and its power supplier, East Kentucky Power Cooperative (EKPC), worked jointly to prepare the load forecast. Factors considered in preparing the forecast include the national and local economy, population and housing trends, service area industrial development, electric price, household income, weather, and appliance efficiency changes.

EKPC prepared a preliminary load forecast, which was reviewed by Fleming-Mason Energy for reasonability. Final projections reflect a rigorous analysis of historical data combined with the experience and judgment of the President/CEO and staff of Fleming-Mason Energy. Key assumptions are reported beginning on page 22.

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### **Executive Summary** (continued)

The load forecast is prepared biannually as part of the overall planning cycle at EKPC and Fleming-Mason Energy. Cooperation helps to ensure that the forecast meets both parties' needs. Fleming-Mason Energy uses the forecast in developing three-year work plans, long-range work plans, and financial forecasts. EKPC uses the forecast in areas of marketing analysis, transmission planning, generation planning, demand-side planning, and financial forecasting.

The complete load forecast for Fleming-Mason Energy is reported in Table 1-1 on pages 8 and 9. Residential and commercial sales, total purchases, winter and summer peak demands, and load factor are presented for the years 1990 through 2030.

Table 1-1 Fleming-Mason Energy 2010 Load Forecast MWh Summary

EXCLUDING DIRECT SERVE LOADS	

	Residential Sales	Seasonal Sales	Small Comm. Sales	Public Buildings Sales	Large Comm. Sales	Public Street & Highway Lighting Sales	Total Sales	Office Use	%	Purchased Power	Direct Serve Loads	Total Sales	Purchased Power	%
Year	(MWh)	(MWh)	(MWh)	(MWh)	(MWh)	(MWh)	(MWh)	(MWh)	Loss	(MWh)	(MWH)	(MWH)	(MWH)	Loss
1990	139,424	8,992	57,187	0	104,726	67	310,396	415	4.9	326,767	0	310,396	326,767	4.9
1991	150,851	9,321	59,868	0	110,943	67	331,051	484	5.2	349,621	0	331,051	349,621	5.2
1992	153,078	9,660	61,419	0	148,218	59	372,434	488	4.9	391,946	104,503	267,930	287,443	6.6
1993	169,080	10,049	63,542	0	297,749	58	540,477	487	3.4	559,956	297,526	242,951	262,430	7.2
1994	170,529	10,195	63,196	0	300,475	58	544,452	478	3.6	565,267	300,485	243,967	264,781	7.7
1995	180,940	10,965	67,387	0	312,475	56	571,823	494	4.1	596,829	312,475	259,348	284,353	8.6
1996	192,834	12,053	69,374	0	315,752	65	590,077	550	3.8	613,647	315,752	274,326	297,896	7.7
1997	194,553	11,634	81,442	0	320,989	71	608,689	509	3.8	633,277	320,989	287,700	312,288	7.7
1998	201,920	11,232	84,219	0	357,093	73	654,537	442	3.4	678,141	328,750	325,786	349,390	6.6
1999	213,936	11,219	89,951	0	372,055	74	687,235	469	3.8	714,885	333,994	353,242	380,891	7.1
2000	227,598	12,183	103,158	0	401,750	74	744,763	483	3.5	772,325	360,843	383,919	411,482	6.6
2001	232,754	12,769	99,047	0	443,295	74	787,938	509	2.6	809,791	427,126	360,813	382,665	5.6
2002	252,823	14,076	106,617	0	508,225	74	881,815	488	2.4	904,358	486,328	395,487	418,029	5.3
2003	247,949	13,445	108,238	0	524,193	75	893,899	506	3.0	921,785	505,620	388,279	416,165	6.6
2004	258,599	13,846	113,975	0	531,607	74	918,101	471	2.7	943,861	514,137	403,964	429,724	5.9
2005	272,699	14,501	127,138	0	518,973	76	933,387	472	2.8	961,035	501,073	432,314	459,962	5.9
2006	261,387	13,882	124,938	0	495,549	78	895,834	402	2.3	917,648	478,799	417,035	438,849	4.9
2007	279,629	14,679	126,539	0	520,877	76	941,800	648	2.8	969,671	502,413	439,387	467,258	5.8
2008	281,833	14,531	124,029	0	557,323	77	977,792	663	2.5	1,003,258	538,579	439,213	464,678	5.3
2009	265,307	13,080	112,690	0	516,998	80	908,155	647	2.8	935,441	501,400	406,755	434,041	6.1
2010	271,088	13,434	115,108	0	525,789	80	925,498	653	2.8	953,299	510,174	415,323	443,125	6.1
2011	270,228	13,419	117,386	0	534,070	80	935,182	653	2.8	963,267	518,337	416,845	444,930	6.2
2012	270,308	13,455	119,747	0	575,504	80	979,095	653	2.8	1,008,467	526,112	452,983	482,355	6.0
2013	268,980	13,333	122,141	0	584,206	81	988,740	653	2.8	1,018,395	532,689	456,052	485,707	6.0
2014	272,413	13,570	124,734	0	593,632	81	1,004,429	653	2.8	1,034,544	539,347	465,082	495,197	5.9
2015	275,464	13,790	127,431	0	603,436	82	1,020,203	653	2.8	1,050,780	546,089	474,113	504,691	5.9
2016	279,756	14,097	130,237	0	613,640	82	1,037,813	653	2.8	1,068,906	552,915	484,898	515,991	5.9
2017	283,896	14,359	133,380	0	625,065	83	1,056,783	653	2.8	1,088,432	559,827	496,956	528,605	5.9
2018	288,637	14,682	136,634	0	636,896	84	1,076,933	653	2.8	1,109,173	566,824	510,108	542,349	5.8
2019	293,399	15,007	139,954	0	648,965	84	1,097,409	653	2.8	1,130,249	573,910	523,499	556,340	5.8
2020	298,851	15,389	143,287	0	661,081	85	1,118,694	653	2.8	1,152,158	581,084	537,610	571,074	5.7
2021	305,303	15,831	146,669	0	673,375	85	1,141,263	653	2.8	1,175,389	588,928	552,335	586,461	5.7
2022	311,754	16,290	150,177	0	686,131	86	1,164,438	653	2.8	1,199,243	596,879	567,559	602,364	5.7
2023	318,641	16,774	153,761	0	699,159	86	1,188,421	653	2.8	1,223,929	604,937	583,484	618,993	5.6
2024	325,029	17,235	157,517	0	712,813	87	1,212,680	653	2.8	1,248,900	613,103	599,577	635,796	5.6
2025	330,242	17,589	161,388	0	726,888	87	1,236,195	653	2.8	1,273,103	621,380	614,814	651,723	5.6
2026	337,056	18,070	165,372	0	749,635	88	1,270,222	653	2.8	1,308,128	629,769	640,453	678,359	5.5
2027	344,386	18,593	169,381	0	764,208	89	1,296,657	653	2.8	1,335,338	638,271	658,386	697,067	5.5
2028	348,860	18,928	173,436	0	778,950	89	1,320,262	653	2.8	1,359,635	646,887	673,375	712,748	5.4
2029	352,048	19,163	177,573	0	793,991	90	1,342,864	653	2.8	1,382,900	655,620	687,244	727,279	5.4
2030	358,848	19,694	181,478	0	808,188	90	1,368,299	653	2.8	1,409,080	664,471	703,828	744,609	5.4
2030	220,010	17,07	101,170	Ü	500,100	70	1,300,277	000	2.0	1,102,000	501,171	.03,020	7 1 1,000	5.1

**Table 1-1 (continued)** Fleming-Mason Energy 2010 Load Forecast **Peaks Summary** 

W	inter et e		Summer			
	Noncoincident		Noncoincident		Purchased	
	Peak Demand		Peak Demand		Power	Load Factor
Season	(MW)	Year	(MW)	Year	(MWh)	(%)
1989 - 90	76.1	1990	59.5	1990	326,767	49.0%
1990 - 91	69.7	1991	61.8	1991	349,621	57.3%
1991 - 92	71.5	1992	66.8	1992	391,946	62.4%
1992 - 93	100.5	1993	95.1	1993	559,956	63.6%
1993 - 94	110.5	1994	98.1	1994	565,267	58.4%
1994 - 95	107.7	1995	101.2	1995	596,829	63.2%
1995 - 96	117.6	1996	96.7	1996	613,647	59.4%
1996 - 97	119.8	1997	106.3	1997	633,277	60.3%
1997 - 98	117.2	1998	112.3	1998	678,141	66.1%
1998 - 99	131.9	1999	123.5	1999	714,885	61.9%
1999 - 00	141.6	2000	129.6	2000	772,325	62.1%
2000 - 01	156.1	2001	141.4	2001	809,791	59.2%
2001 - 02	161.6	2002	151.7	2002	904,358	63.9%
2002 - 03	194.6	2003	146.0	2003	921,785	54.1%
2003 - 04	181.6	2004	146.0	2004	943,861	59.2%
2004 - 05	188.7	2005	159.8	2005	961,035	58.1%
2005 - 06	180.5	2006	158.6	2006	917,648	58.0%
2006 - 07	194.4	2007	172.1	2007	969,671	56.9%
2007 - 08	199.9	2008	161.9	2008	1,003,258	57.1%
2008 - 09	202.9	2009	163.8	2009	935,441	52.6%
2009 - 10	171.6	2010	168.7	2010	953,299	63.4%
2010 - 11	204.7	2011	170.5	2011	963,267	53.7%
2011 - 12	211.9	2012	178.2	2012	1,008,467	54.2%
2012 - 13	214.5	2013	180.6	2013	1,018,395	54.2%
2013 - 14	218.0	2014	183.3	2014	1,034,544	54.2%
2014 - 15	221.3	2015	186.2	2015	1,050,780	54.2%
2015- 16	224.5	2016	188.8	2016	1,068,906	54.2%
2016 - 17	229.2	2017	192.8	2017	1,088,432	54.2%
2017 - 18	233.4	2018	196.5	2018	1,109,173	54.2%
2018 - 19	237.7	2019	200.2	2019	1,130,249	54.3%
2019 - 20	241.7	2020	203.4	2020	1,152,158	54.3%
2020 - 21	247.4	2021	208.0	2021	1,175,389	54.2%
2021 - 22	252.4	2022	212.1	2022	1,199,243	54.3%
2022 - 23	257.6	2023	216.4	2023	1,223,929	54.2%
2023 - 24	262.0	2024	220.2	2024	1,248,900	54.3%
2024 - 25	267.7	2025	225.1	2025	1,273,103	54.3%
2025 - 26	274.5	2026	231.3	2026	1,308,128	54.4%
2026 - 27	280.2	2027	236.0	2027	1,335,338	54.4%
2027 - 28	284.2	2028	239.7	2028	1,359,635	54.5%
2028 - 29	289.4	2029	244.6	2029	1,382,900	54.5%
2029 - 30	294.8	2030	249.2	2030	1,409,080	54.6%
			•	•		

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### Executive Summary (continued) Overall Results

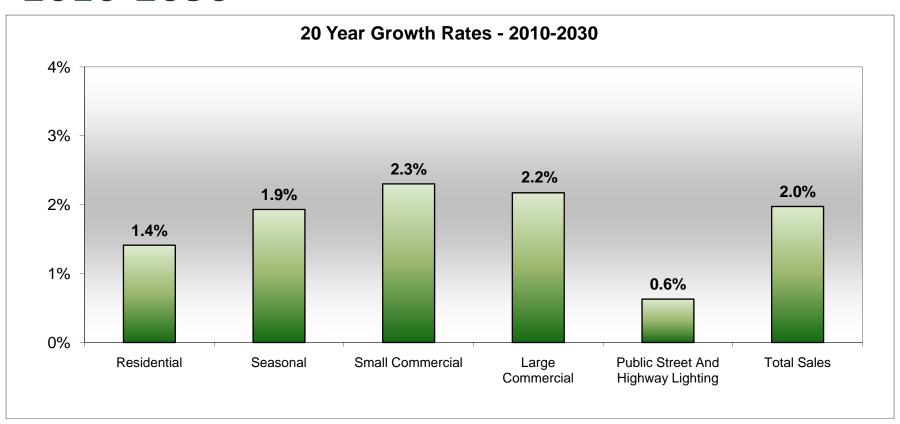
- Total sales are projected to grow by 2.0 percent a year for the period 2010-2030, compared to a 2.3 percent growth projected in the 2008 load forecast for the period 2007-2027. Results shown in Table 1-2 and Figure 1-1.
- Winter and summer peak demands for the same period indicate annual growth of 1.9 and 2.0 percent, respectively. Annual peaks shown in Figure 1-2.
- Load factor remains steady at approximately 54% for the forecast period. See Figure 1-3.

### Executive Summary (continued) Overall Results

Table 1-2
Fleming-Mason Energy 2010 Load Forecast
Summary of Sales Growth Rates

	Time				Large	Public Street And	
	Period	Residential	Seasonal	Small Commercial	Commercial	Highway Lighting	Total Sales
	1999-2004	3.9%	4.3%	4.8%	7.4%	0.2%	6.0%
	2004-2009	0.5%	-1.1%	-0.2%	-0.6%	1.4%	-0.2%
5 Year Growth Rates	2010-2015	0.3%	0.5%	2.1%	2.8%	0.6%	2.0%
3 Tear Glowin Rates	2015-2020	1.6%	2.2%	2.4%	1.8%	0.7%	1.9%
	2020-2025	2.0%	2.7%	2.4%	1.9%	0.6%	2.0%
	2025-2030	1.7%	2.3%	2.4%	2.1%	0.6%	2.1%
	1999-2009	2.2%	1.5%	2.3%	3.3%	0.8%	2.8%
10 Year Growth Rates	2010-2020	1.0%	1.4%	2.2%	2.3%	0.6%	1.9%
	2020-2030	1.8%	2.5%	2.4%	2.0%	0.6%	2.0%

# Figure 1-1 Average Annual Growth in Sales 2010-2030



# Figure 1-2 Peak Demand Forecast Winter and Summer

#### Fleming-Mason Energy - Normal Peaks

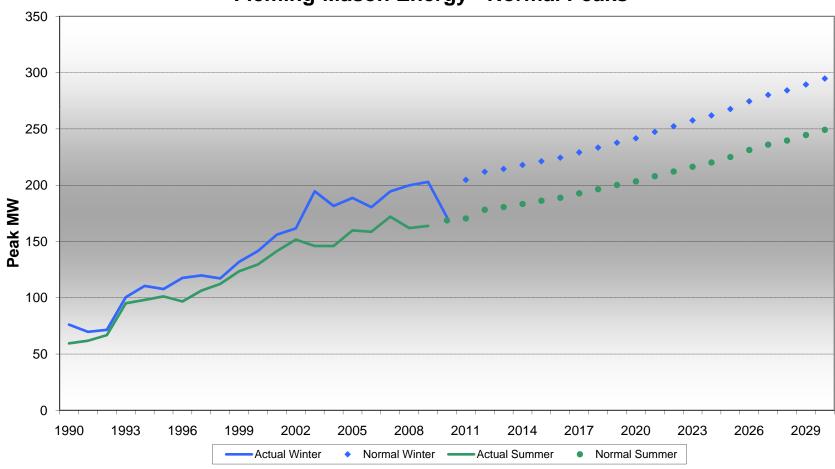
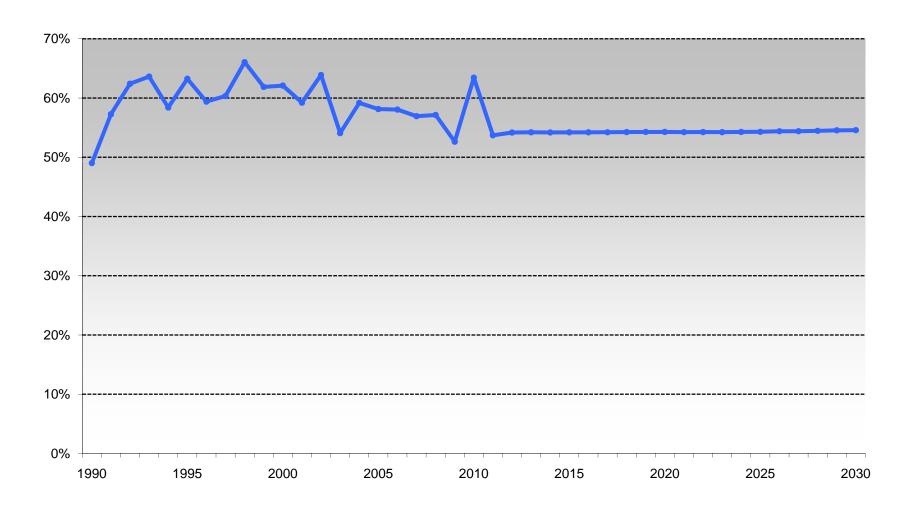


Figure 1-3 Annual System Load Factor



### Narrative Territory

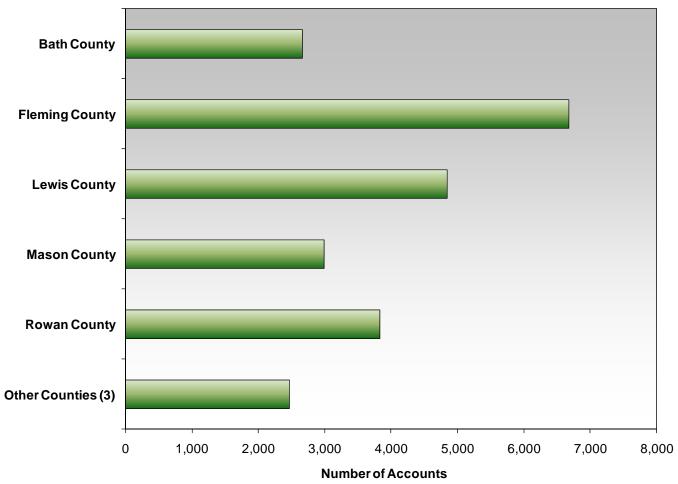
The service area of Fleming-Mason Energy is located in the northeastern Kentucky counties of Bath, Bracken, Fleming, Lewis, Mason, Nicholas, Robertson, and Rowan. The electric service boundaries dividing these counties were established by the Kentucky Public Service Commission several years ago.

This is a primarily agricultural area with the major interest in tobacco, dairy, and beef cattle. The wooded eastern section has a small sawmill industry. The three largest communities are Maysville (population 10,500), Morehead (population 5,900) and Flemingsburg (population 3,100). All three are in the electrical service territory of Kentucky Utilities, as are the county seat communities of the other counties except Vanceburg in Lewis County, which has a municipal power system.

### Narrative (continued) Counties Served

Fleming-Mason Energy provides service to members in 8 counties.





#### Local Economy and Customer Growth

The service area has developed slowly and trying to predict the future identifies some of the causes. The farming economy has been flat for the past several years, but there are indicators which may allow for some optimism in the beef cattle and dairy areas, but tobacco faces critical consequences from congressional and health related groups.

Industrial development has been increasing along the AA Highway corridor (Mason County primarily, but potential in Lewis County exists as well). Inland Container Corporation is operating with more than 50 MW of combined steam and electric load and may expand in the not too distant future. Dravo Lime may increase its 15 MW usage because of increased demand for scrubber lime, as a result of the Clean Air Act of 1992.

#### Local Economy and Customer Growth

The Mason County industrial park has continued to expand. Recently, Mitsubishi and Green Tokai completed expansion projects and the industrial authority is actively seeking additional companies to locate in this area.

The Morehead area, especially the Highway 801 corridor, has significant growth potential. We feel that economic growth, both short-term and long-term, in this particular area, may be significant. There may be greater natural gas availability in the Morehead, Flemingsburg, and Maysville areas. This could have a negative effect if use becomes widespread.

#### Local Economy and Customer Growth

Other potential projects that may have an impact on future load growth include the completion of Highway 11 that links Flemingsburg and Mount Sterling. The new road will open up potential housing development in Bath County and southern Fleming County.

Also, the relocation and expansion of Highway 32 in Rowan County could support additional growth along this road. The construction on Highway 32 is nearly complete and the development in this area is about to begin. Recently, Walmart purchased a parcel of land in this area and other businesses are actively looking for adjacent properties. The commercial growth in this area will be significant in the coming years.

### Fleming-Mason Energy Members Demographic Information

There is an average of 2.38 people per household.

59% of all homes are headed by someone age 55 or greater.

Nearly 28% of homes have farm operations, with beef cattle most prevalent.

24% of all homes served are less than 10 years old.

### Key Assumptions Power Cost and Rates

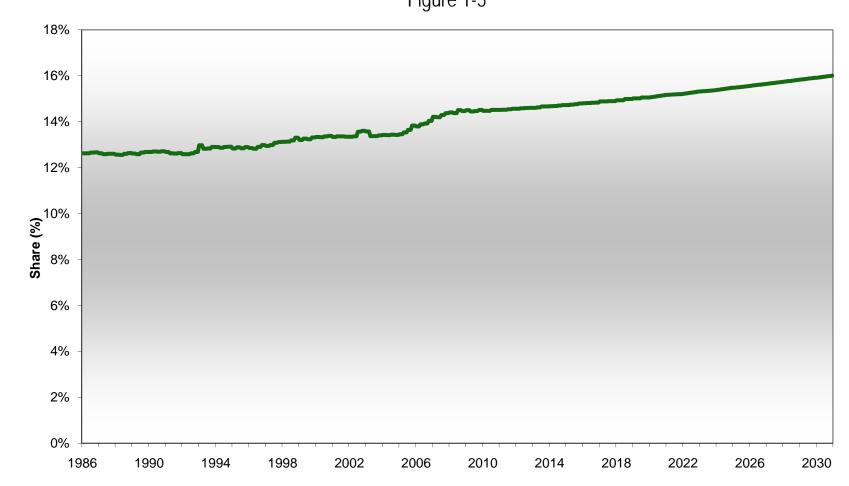
- EKPC's wholesale power cost forecast used in this load forecast comes from the following report: "Twenty-Year Financial Forecast and Equity Development Plan, 2010-2029", revised May 11, 2010.
- Average residential retail rates will change from 9.968 cents/kWh in 2009 to 17.289 cents/kWh in 2030.

### Key Assumptions (continued) North Eastern Economic Region History and Forecast

	Popula	ation	House	holds	To Emplo			loyment ate	_	al Total ome
		(%) Change		(%) Change	·	(%) Change		(%) Change		(%) Change
1990	250,788		92,830		77,738		8.8%		\$5,277	
1991	252,745	0.8%	94,569	1.9%	78,126	0.5%	10.1%	14.6%	\$5,492	4.1%
1992	254,920	0.9%	96,003	1.5%	80,058	2.5%	10.9%	8.8%	\$5,628	2.5%
1993	256,441	0.6%	96,719	0.7%	79,845	-0.3%	9.8%	-10.2%	\$5,614	-0.2%
1994	257,720	0.5%	97,700	1.0%	82,255	3.0%	7.8%	-20.7%	\$5,697	1.5%
1995	258,925	0.5%	99,283	1.6%	83,948	2.1%	7.6%	-2.2%	\$5,676	-0.4%
1996	260,247	0.5%	100,666	1.4%	85,549	1.9%	7.4%	-3.1%	\$5,872	3.4%
1997	261,862	0.6%	101,690	1.0%	87,562	2.4%	6.8%	-7.7%	\$6,091	3.7%
1998	263,275	0.5%	102,613	0.9%	89,551	2.3%	6.1%	-11.0%	\$6,272	3.0%
1999	264,619	0.5%	103,509	0.9%	90,361	0.9%	5.6%	-7.0%	\$6,307	0.6%
2000	265,547	0.4%	104,079	0.6%	91,558	1.3%	5.6%	-0.3%	\$6,527	3.5%
2001	266,241	0.3%	104,779	0.7%	91,513	0.0%	7.4%	31.1%	\$6,522	-0.1%
2002	266,830	0.2%	105,281	0.5%	93,393	2.1%	6.4%	-12.8%	\$6,641	1.8%
2003	267,339	0.2%	105,816	0.5%	93,711	0.3%	7.0%	9.6%	\$6,706	1.0%
2004	268,032	0.3%	106,358	0.5%	94,350	0.7%	6.5%	-8.3%	\$6,766	0.9%
2005	269,409	0.5%	106,532	0.2%	95,244	0.9%	6.7%	4.2%	\$6,695	-1.1%
2006	270,792	0.5%	106,412	-0.1%	94,755	-0.5%	6.1%	-9.9%	\$6,955	3.9%
2007	271,990	0.4%	106,409	0.0%	95,905	1.2%	5.9%	-3.3%	\$6,913	-0.6%
2008	273,498	0.6%	106,319	-0.1%	93,556	-2.4%	7.8%	34.0%	\$6,901	-0.2%
2009	275,118	0.6%	106,792	0.4%	89,461	-4.4%	11.8%	50.2%	\$6,651	-3.6%
2010	276,922	0.7%	108,136	1.3%	90,046	0.7%	11.2%	-5.3%	\$6,650	0.0%
2011	278,724	0.7%	109,066	0.9%	92,167	2.4%	10.0%	-10.2%	\$6,751	1.5%
2012	280,423	0.6%	109,541	0.4%	94,674	2.7%	9.1%	-9.7%	\$7,004	3.7%
2013	282,363	0.7%	110,574	0.9%	96,601	2.0%	8.6%	-5.1%	\$7,215	3.0%
2014	284,092	0.6%	111,117	0.5%	98,085	1.5%	8.2%	-4.8%	\$7,405	2.6%
2019	292,208	0.5%	116,913	0.7%	104,077	0.9%	5.6%	-5.2%	\$8,363	1.8%
2029	303,507	0.4%	123,619	0.6%	111,477	0.7%	5.5%	-0.2%	\$10,375	2.2%

## Key Assumptions (continued) Share of Regional Homes Served

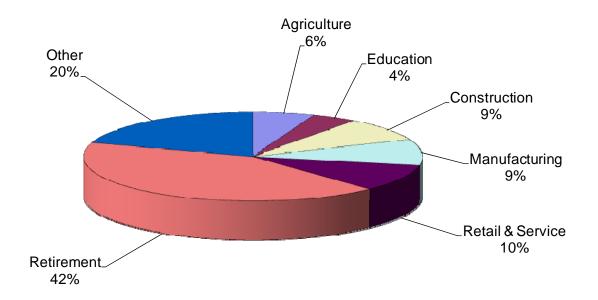
Fleming-Mason Energy's market share will increase for the forecast period. Figure 1-5



### Key Assumptions (continued)

### Household Income Members' Greatest Sources

Figure 1-6



## Key Assumptions (continued) Appliance Saturations

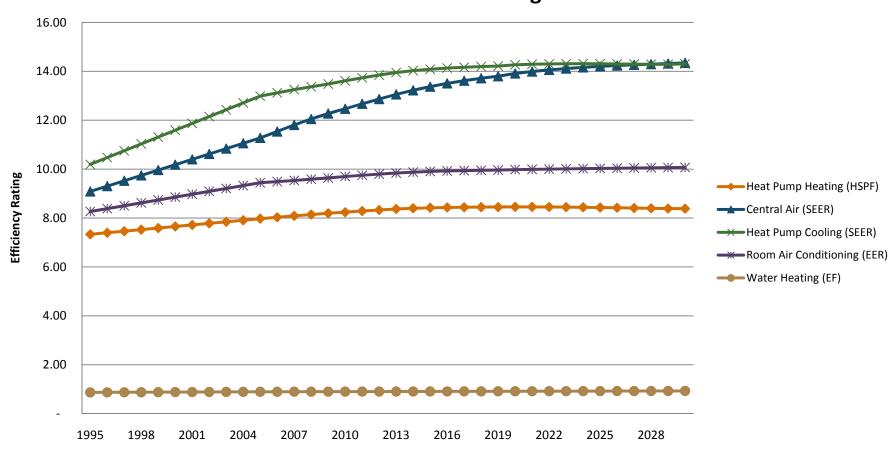
- Electric heat saturation will increase from approximately 55 percent to 61 percent.
- Central air conditioning will continue its penetration into the service area with approximately 73 percent of all residences having central air by 2030.
- Room air conditioner saturation is declining due to customers choosing central air conditioning systems.
- Electric water heater saturation will remain at approximately 90 percent.
- Appliance efficiency trends are accounted for in the model. The data is collected from Energy Information Administration, (EIA). See Figure 1-7.
- 73 percent of homes report having at least 1 Compact Fluorescent Light.

# Key Assumptions (continued) Saturation Rates Non HVAC Appliances

	Electric Range	95%
•	Dishwasher	53%
•	Freezer	60%
•	Clothes Dryer	97%
•	Personal Computer	63%

### Key Assumptions (continued)

Figure 1-7
Residential Appliance Efficiency Trends
East South Central Region



Source: Energy Information Administration (EIA) Efficiency Trend Update, 2009

### Key Assumptions (continued) Weather

- Weather data is from the Covington weather station.
- Normal weather, a 30-year average of historical temperatures, is assumed for the forecast years.

### Methodology and Results Introduction

This section briefly describes the methodology used to develop the load forecast and presents results in tabular and graphical form for residential and commercial classifications. Table 1-3 through Table 1-5 shows historical data for Fleming-Mason Energy as reported on RUS Form 736 and RUS Form 5.

A preliminary forecast is prepared during the first quarter depending on when Fleming-Mason Energy experiences its winter peak. The first step is modeling the regional economy. Population, income, and employment are among the areas analyzed. The regional model results are used in combination with the historical billing information, appliance saturation data, appliance efficiency data, and weather data to develop the long range forecast.

Table 1-3

Year	kWh Purchased And Generated	Change	kWh Sold	Change	kWh Loss	% Loss	Billing Peak Demand	Average Number Of Consumers	Miles Of Line	Consumers Per Mile	Cost Of Purchased Power	Cents / kWh
1995	596,828,833		571,823,424		24,511,406	4.1%	106.0	18,055	2,979	6.1	\$17,816,337	3.0
1996	613,647,062	2.8%	590,077,308	3.2%	23,019,455	3.8%	113.8	18,566	3,029	6.1	\$17,371,954	2.8
1997	633,277,432	3.2%	608,689,314	3.2%	24,079,107	3.8%	115.5	18,886	3,086	6.1	\$18,063,255	2.9
1998	678,140,574	7.1%	654,536,537	7.5%	23,162,210	3.4%	117.1	19,809	3,142	6.3	\$19,594,667	2.9
1999	714,884,991	5.4%	687,235,273	5.0%	27,181,184	3.8%	125.4	20,364	3,194	6.4	\$21,880,765	3.1
2000	772,325,198	8.0%	744,762,623	8.4%	27,079,806	3.5%	141.1	20,883	3,243	6.4	\$24,588,077	3.2
2001	809,790,559	4.9%	787,938,458	5.8%	21,382,447	2.6%	146.4	21,283	3,274	6.5	\$27,851,855	3.4
2002	904,357,798	11.7%	881,815,029	11.9%	22,054,607	2.4%	143.2	21,762	3,311	6.6	\$30,349,528	3.4
2003	921,784,629	1.9%	893,898,975	1.4%	27,379,724	3.0%	151.1	22,122	3,346	6.6	\$33,137,570	3.6
2004	943,861,247	2.4%	918,101,009	2.7%	25,289,362	2.7%	160.2	22,580	3,386	6.7	\$37,801,984	4.0
2005	961,034,846	1.8%	933,386,664	1.7%	27,175,954	2.8%	162.4	22,993	3,421	6.7	\$47,249,342	4.9
2006	917,647,883	-4.5%	895,834,226	-4.0%	21,411,877	2.3%	160.1	23,364	3,456	6.8	\$48,679,078	5.3
2007	969,671,346	5.7%	941,799,965	5.1%	27,223,394	2.8%	170.4	23,687	3,483	6.8	\$55,340,211	5.7
2008	1,003,257,703	3.5%	977,792,496	3.8%	24,801,986	2.5%	173.0	23,804	3,506	6.8	\$61,902,519	6.2
2009	935,441,371	-6.8%	908,154,690	-7.1%	26,639,476	2.8%	176.2	23,792	3,517	6.8	\$55,771,761	6.0
Ave	rage					3.0%						4.2

Table 1-4

Fleming-Mason	Energy	Comparative	Annual (	Operatina	Data
, , , , , , , , , , , , , , , , , , , ,				- p	•

			• • • • • • • • • • • • • • • • • • • •	37				•				
					Commercia		Commerci		Public St	reet /	Pul	blic
	Resident	ıal	Resident	ial Seasonal	Industri (1 MW Or l		Industr		Highway L	ighting	Autho	orities
		%			-	% %	(Over 1 MW)			%	kWh	%
Year	kWh Sales	Change	kWh Sales	% Change	kWh Sales	Change	kWh Sales	Change	kWh Sales	Change		
1995	180,939,800		10,965,067		67,386,796	-	312,475,392	_	56,369		0	
1996	192,833,988	6.6%	12,053,239	9.9%	69,373,548	2.9%	315,751,530	1.0%	65,003	15.3%	0	
1997	194,553,018	0.9%	11,633,516	-3.5%	81,442,451	17.4%	320,988,976	1.7%	71,353	9.8%	0	
1998	201,919,818	3.8%	11,231,684	-3.5%	84,219,165	3.4%	357,092,880	11.2%	72,990	2.3%	0	
1999	213,936,271	6.0%	11,219,338	-0.1%	89,950,635	6.8%	372,055,319	4.2%	73,710	1.0%	0	
2000	227,597,861	6.4%	12,182,673	8.6%	103,157,568	14.7%	401,750,175	8.0%	74,346	0.9%	0	
2001	232,753,769	2.3%	12,768,794	4.8%	99,046,824	-4.0%	443,294,746	10.3%	74,325	0.0%	0	
2002	252,822,513	8.6%	14,075,565	10.2%	106,617,460	7.6%	508,225,151	14.6%	74,340	0.0%	0	
2003	247,948,682	-1.9%	13,444,703	-4.5%	108,238,065	1.5%	524,192,657	3.1%	74,868	0.7%	0	
2004	258,598,655	4.3%	13,846,367	3.0%	113,974,718	5.3%	531,606,833	1.4%	74,436	-0.6%	0	
2005	272,698,798	5.5%	14,501,046	4.7%	127,137,936	11.5%	518,973,068	-2.4%	75,816	1.9%	0	
2006	261,387,026	-4.1%	13,882,326	-4.3%	124,938,418	-1.7%	495,548,798	-4.5%	77,658	2.4%	0	
2007	279,628,705	7.0%	14,679,317	5.7%	126,538,574	1.3%	520,876,875	5.1%	76,494	-1.5%	0	
2008	281,832,609	0.8%	14,530,711	-1.0%	124,029,143	-2.0%	557,322,536	7.0%	77,497	1.3%	0	
2009	265,307,168	-5.9%	13,079,951	-10.0%	112,690,032	-9.1%	516,997,604	-7.2%	79,935	3.1%	0	
				Aver	age Annua	l Char	nge			'		
2 Year	-7,160,769	-6.4%	-799683	-0.07862572	-6,924,271	-5.2%	-1,939,636	-6.2%	1,721	2.3%		
5 Year	1,341,703	-2.0%	-153283.2	-0.02594324	-256,937	-2.9%	-2,921,846	-1.7%	1,100	0.7%		
10 Year	5,137,090	-1.2%	186061.3	-0.00987417	2,273,940	-1.6%	14,494,229	-1.1%	623	0.2%		

Table 1-5

Fleming-Mason Energy Comparative Annual Operating Data														
	Residential		Residential Seasonal		Commercial / Industrial (1 MW Or Less)		Commercial / Industrial (Over 1 MW)		Public St Highway L		Public Authorities			
Year	Consumers	kwh / Mo.	Consumers	kwh / Mo.	Consumers	kwh / Mo.	Consumers	kwh / Mo.	Consumers	kwh / Mo.	Consumers	kwh / Mo.		
1995	14,128	1,067	2,865	319	1,057	5,313	2	13,019,808	3	1,566	0			
1996	14,456	1,112	3,027	332	1,078	5,363	2	13,156,314	3	1,806	0			
1997	14,856	1,091	2,918	332	1,107	6,131	2	13,374,541	3	1,982	0			
1998	15,300	1,100	3,345	280	1,158	6,061	3	9,919,247	3	2,028	0			
1999	15,653	1,139	3,495	268	1,210	6,195	3	10,334,870	3	2,048	0			
2000	15,973	1,187	3,636	279	1,268	6,780	3	11,159,727	3	2,065	0			
2001	16,200	1,197	3,769	282	1,306	6,320	5	7,388,246	3	2,065	0			
2002	16,420	1,283	3,926	299	1,408	6,310	5	8,470,419	3	2,065	0			
2003	16,692	1,238	4,021	279	1,401	6,438	5	8,736,544	3	2,080	0			
2004	16,982	1,269	4,140	279	1,450	6,550	5	8,860,114	3	2,068	0			
2005	17,205	1,321	4,275	283	1,505	7,040	5	8,649,551	3	2,106	0			
2006	17,424	1,250	4,371	265	1,561	6,670	5	8,259,147	3	2,157	0			
2007	17,627	1,322	4,459	274	1,592	6,624	5	8,681,281	4	1,594	0			
2008	17,730	1,325	4,463	271	1,601	6,456	5	9,288,709	5	1,292	0			
2009	17,759	1,245	4,420	247	1,604	5,855	5	8,616,627	4	1,665	0			
10 Year Avg.	211	11	93	-2	39	-34	0	-171,824	0	-38				
5 Year Avg.	155	-5	56	-6	31	-139	0	-48,697	0	-80				
2 Year Avg.	66	-39	-20	-14	6	-385	0	-32,327	0	36				
			Annual	Change:	s In Fleming	-Mason (	Energy's Res	sidential Clas	s		<u> </u>			
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009		
Consumers	444	353	320	227	220	272	290	223	219	203	103	29		
kWh/month	8	39	48	10	86	-45	31	52	-71	72	3	-80		

### Methodology and Results (continued)

The preliminary forecast was presented to Fleming-Mason Energy staff, and reviewed by the Rural Utilities Services (RUS) Field Representative. Changes were made to the forecast as needed based on new information, such as new large loads or subdivisions. In some instances, other assumptions were changed based on insights from Fleming-Mason Energy staff.

## Methodology and Results (continued) Residential Forecast

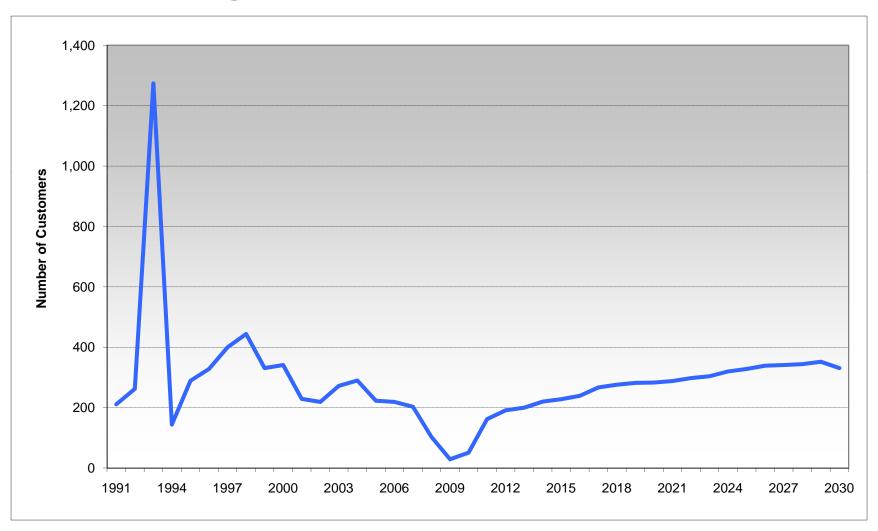
Residential customers are analyzed by means of regression analysis with resulting coefficients used to prepare customer projections. Regressions for residential customers are typically a function of regional economic and demographic variables. Two variables that are very significant are the numbers of households by county in each member system's economic region and the percent of total households served by the member system. Table 1-6 and Figure 1-8 report Fleming-Mason Energy's customer forecast.

The residential energy sales were projected using a statistically adjusted end-use (SAE) approach. This method of modeling incorporates end-use forecasts and can be used to allocate the monthly and annual forecasts into end-use components. This method, like end-use modeling, requires detailed information about appliance saturation, appliance use, appliance efficiencies, household characteristics, weather characteristics, and demographic and economic information. The SAE approach segments the average household use into heating, cooling, and water heating end-use components. This model accounts for appliance efficiency improvements. Table 1-6 reports Fleming-Mason Energy's energy forecast.

Table 1-6 Fleming-Mason Energy 2010 Load Forecast Residential Summary

_		Customers		Use	Per Custon	ner	Class Sales			
=				Monthly	Annual		Annual			
	Annual	Annual	%	Average	Change	%	Total	Change	%	
	Average	Change	Change	(kWh)	(kWh)	Change	(MWh)	(MWh)	Change	
1990	11,948			972		_	139,424			
1991	12,159	211	1.8	1,034	61	6.3	150,851	11,427	8.2	
1992	12,421	262	2.2	1,027	-7	-0.7	153,078	2,227	1.5	
1993	13,695	1,274	10.3	1,029	2	0.2	169,080	16,002	10.5	
1994	13,839	144	1.1	1,027	-2	-0.2	170,529	1,450	0.9	
1995	14,128	289	2.1	1,067	40	3.9	180,940	10,410	6.1	
1996	14,456	328	2.3	1,112	44	4.2	192,834	11,894	6.6	
1997	14,856	400	2.8	1,091	-20	-1.8	194,553	1,719	0.9	
1998	15,300	444	3.0	1,100	8	0.8	201,920	7,367	3.8	
1999	15,631	331	2.2	1,141	41	3.7	213,936	12,016	6.0	
2000	15,972	341	2.2	1,187	47	4.1	227,598	13,662	6.4	
2001	16,201	229	1.4	1,197	10	0.8	232,754	5,156	2.3	
2002	16,420	219	1.4	1,283	86	7.2	252,823	20,069	8.6	
2003	16,692	272	1.7	1,238	-45	-3.5	247,949	-4,874	-1.9	
2004	16,982	290	1.7	1,269	31	2.5	258,599	10,650	4.3	
2005	17,205	223	1.3	1,321	52	4.1	272,699	14,100	5.5	
2006	17,424	219	1.3	1,250	-71	-5.4	261,387	-11,312	-4.1	
2007	17,627	203	1.2	1,322	72	5.7	279,629	18,242	7.0	
2008	17,730	103	0.6	1,325	3	0.2	281,833	2,204	0.8	
2009	17,759	29	0.2	1,245	-80	-6.0	265,307	-16,526	-5.9	
2010	17,810	51	0.3	1,268	23	1.9	271,088	5,781	2.2	
2011	17,972	162	0.9	1,253	-15	-1.2	270,228	-860	-0.3	
2012	18,163	191	1.1	1,240	-13	-1.0	270,308	81	0.0	
2013	18,363	200	1.1	1,221	-20	-1.6	268,980	-1,328	-0.5	
2014	18,583	220	1.2	1,222	1	0.1	272,413	3,433	1.3	
2015	18,811	228	1.2	1,220	-1	-0.1	275,464	3,051	1.1	
2016	19,050	239	1.3	1,224	3	0.3	279,756	4,292	1.6	
2017	19,317	267	1.4	1,225	1	0.1	283,896	4,140	1.5	
2018	19,593	276	1.4	1,228	3	0.2	288,637	4,741	1.7	
2019	19,875	282	1.4	1,230	3	0.2	293,399	4,762	1.6	
2020	20,158	283	1.4	1,235	5	0.4	298,851	5,452	1.9	
2021	20,446	288	1.4	1,244	9	0.7	305,303	6,452	2.2	
2022	20,744	298	1.5	1,252	8	0.6	311,754	6,451	2.1	
2023	21,048	304	1.5	1,262	9	0.7	318,641	6,887	2.2	
2024	21,368	320	1.5	1,268	6	0.5	325,029	6,388	2.0	
2025	21,696	328	1.5	1,268	1	0.1	330,242	5,213	1.6	
2026	22,035	339	1.6	1,275	6	0.5	337,056	6,815	2.1	
2027	22,376	341	1.5	1,283	8	0.6	344,386	7,330	2.2	
2028	22,720	344	1.5	1,280	-3	-0.2	348,860	4,474	1.3	
2029	23,072	352	1.5	1,272	-8	-0.6	352,048	3,189	0.9	
2030	23,403	331	1.4	1,278	6	0.5	358,848	6,800	1.9	

Figure 1-8 Annual Change in Residential Customers



## Methodology and Results (continued) Seasonal Forecast

Seasonal sales are projected using two equations, a customer equation and an energy equation. Both are determined through regression analysis and utilize inputs relating to the economy, electric price, and the residential customer forecast. Projections are reported in Table 1-7.

Table 1-7
Fleming-Mason Energy
2010 Load Forecast
Seasonal Summary

		Customers			Per Custon	ner	Class Sales			
•				Monthly	Annual			Annual		
	Annual	Annual	%	Average	Change	%	Total	Change	%	
	Average	Change	Change	(kWh)	(kWh)	Change	(MWh)	(MWh)	Change	
1990	2,907			258			8,992			
1991	3,033	126	4.3	256	-2	-0.6	9,321	329	3.7	
1992	3,193	160	5.3	252	-4	-1.6	9,660	339	3.6	
1993	2,602	-591	-18.5	322	70	27.7	10,049	389	4.0	
1994	2,736	134	5.1	311	-11	-3.5	10,195	146	1.5	
1995	2,865	129	4.7	319	8	2.7	10,965	770	7.6	
1996	3,027	162	5.7	332	13	4.0	12,053	1,088	9.9	
1997	2,918	-109	-3.6	332	0	0.1	11,634	-420	-3.5	
1998	3,345	427	14.6	280	-52	-15.8	11,232	-402	-3.5	
1999	3,495	150	4.5	268	-12	-4.4	11,219	-12	-0.1	
2000	3,636	141	4.0	279	12	4.4	12,183	963	8.6	
2001	3,769	133	3.7	282	3	1.1	12,769	586	4.8	
2002	3,926	157	4.2	299	16	5.8	14,076	1,307	10.2	
2003	4,021	95	2.4	279	-20	-6.7	13,445	-631	-4.5	
2004	4,140	119	3.0	279	0	0.0	13,846	402	3.0	
2005	4,275	135	3.3	283	4	1.4	14,501	655	4.7	
2006	4,371	96	2.2	265	-18	-6.4	13,882	-619	-4.3	
2007	4,459	88	2.0	274	10	3.7	14,679	797	5.7	
2008	4,463	4	0.1	271	-3	-1.1	14,531	-149	-1.0	
2009	4,420	-43	-1.0	247	-25	-9.1	13,080	-1,451	-10.0	
2010	4,478	58	1.3	250	3	1.4	13,434	354	2.7	
2011	4,519	41	0.9	247	-3	-1.0	13,419	-15	-0.1	
2012	4,561	42	0.9	246	-2	-0.7	13,455	36	0.3	
2013	4,604	43	0.9	241	-5	-1.8	13,333	-122	-0.9	
2014	4,649	45	1.0	243	2	0.8	13,570	237	1.8	
2015	4,697	48	1.0	245	1	0.6	13,790	220	1.6	
2016	4,747	50	1.1	247	3	1.2	14,097	307	2.2	
2017	4,799	52	1.1	249	2	0.8	14,359	262	1.9	
2018	4,853	54	1.1	252	3	1.1	14,682	322	2.2	
2019	4,912	59	1.2	255	2	1.0	15,007	325	2.2	
2020	4,971	59	1.2	258	3	1.3	15,389	382	2.5	
2021	5,035	64	1.3	262	4	1.6	15,831	442	2.9	
2022	5,100	65	1.3	266	4	1.6	16,290	459	2.9	
2023	5,168	68	1.3	270	4	1.6	16,774	484	3.0	
2024	5,238	70	1.4	274	4	1.4	17,235	461	2.7	
2025	5,311	73	1.4	276	2	0.7	17,589	354	2.1	
2026	5,387	76	1.4	280	4	1.3	18,070	481	2.7	
2027	5,465	78	1.4	284	4	1.4	18,593	523	2.9	
2028	5,546	81	1.5	284	1	0.3	18,928	334	1.8	
2029	5,629	83	1.5	284	-1	-0.3	19,163	235	1.2	
2030	5,714	85	1.5	287	4	1.2	19,694	531	2.8	

## Methodology and Results (continued) Small Commercial Forecast

Small commercial sales are projected using two equations, a customer equation and a small commercial sales equation. Both are determined through regression analysis and utilize inputs relating to the economy, electric price, and the residential customer forecast. Small commercial projections are reported in Table 1-8.

Table 1-8
Fleming-Mason Energy
2010 Load Forecast
Small Commercial Summary

_		Customers		Use	Per Custon	ner	Class Sales			
_				Annual	Annual			Annual		
	Annual	Annual	%	Average	Change	%	Total	Change	%	
_	Average	Change	Change	(MWh)	(MWh)	Change	(MWh)	(MWh)	Change	
1990	912			63			57,187			
1991	944	32	3.5	63	1	1.1	59,868	2,681	4.7	
1992	972	28	3.0	63	0	-0.4	61,419	1,551	2.6	
1993	1,013	41	4.2	63	0	-0.7	63,542	2,123	3.5	
1994	1,033	20	2.0	61	-2	-2.5	63,196	-346	-0.5	
1995	1,057	24	2.3	64	3	4.2	67,387	4,191	6.6	
1996	1,079	22	2.1	64	1	0.8	69,374	1,987	2.9	
1997	1,107	28	2.6	74	9	14.4	81,442	12,069	17.4	
1998	1,158	51	4.6	73	-1	-1.1	84,219	2,777	3.4	
1999	1,210	52	4.5	74	2	2.2	89,951	5,731	6.8	
2000	1,268	58	4.8	81	7	9.4	103,158	13,207	14.7	
2001	1,306	38	3.0	76	-6	-6.8	99,047	-4,111	-4.0	
2002	1,408	102	7.8	76	0	-0.2	106,617	7,571	7.6	
2003	1,401	-7	-0.5	77	2	2.0	108,238	1,621	1.5	
2004	1,450	49	3.5	79	1	1.7	113,975	5,737	5.3	
2005	1,505	55	3.8	84	6	7.5	127,138	13,163	11.5	
2006	1,561	56	3.7	80	-4	-5.3	124,938	-2,200	-1.7	
2007	1,592	31	2.0	79	-1	-0.7	126,539	1,600	1.3	
2008	1,601	9	0.6	77	-2	-2.5	124,029	-2,509	-2.0	
2009	1,604	3	0.2	70	-7	-9.3	112,690	-11,339	-9.1	
2010	1,611	7	0.4	71	1	1.7	115,108	2,418	2.1	
2011	1,629	18	1.1	72	1	0.9	117,386	2,278	2.0	
2012	1,650	21	1.3	73	1	0.7	119,747	2,361	2.0	
2013	1,672	22	1.3	73	0	0.7	122,141	2,394	2.0	
2014	1,696	24	1.4	74	0	0.7	124,734	2,593	2.1	
2015	1,722	26	1.5	74	0	0.6	127,431	2,697	2.2	
2016	1,748	26	1.5	75	1	0.7	130,237	2,807	2.2	
2017	1,778	30	1.7	75	1	0.7	133,380	3,143	2.4	
2018	1,808	30	1.7	76	1	0.7	136,634	3,255	2.4	
2019	1,839	31	1.7	76	1	0.7	139,954	3,320	2.4	
2020	1,871	32	1.7	77	0	0.6	143,287	3,333	2.4	
2021	1,903	32	1.7	77	0	0.6	146,669	3,382	2.4	
2022	1,936	33	1.7	78	0	0.6	150,177	3,509	2.4	
2023	1,970	34	1.8	78	0	0.6	153,761	3,584	2.4	
2024	2,005	35	1.8	79	1	0.7	157,517	3,756	2.4	
2025	2,041	36	1.8	79	1	0.7	161,388	3,872	2.5	
2026	2,079	38	1.9	80	0	0.6	165,372	3,984	2.5	
2027	2,117	38	1.8	80	0	0.6	169,381	4,009	2.4	
2028	2,155	38	1.8	80	0	0.6	173,436	4,055	2.4	
2029	2,194	39	1.8	81	0	0.6	177,573	4,137	2.4	
2030	2,231	37	1.7	81	0	0.5	181,478	3,905	2.2	

## Methodology and Results (continued) Large Commercial Forecast

Large commercial customers are those with loads 1 MW or greater. Fleming-Mason Energy currently has 5 customers in this class and is projected to increase to 7 customers by 2030. Large commercial results are reported in Table 1-9.

Table 1-9
Fleming-Mason Energy
2010 Load Forecast
Large Commercial Summary

_		Customers		Use	Per Custon	ner	Class Sales			
-				Annual	Annual			Annual		
	Annual	Annual	%	Average	Change	%	Total	Change	%	
_	Average	Change	Change	(MWh)	(MWh)	Change	(MWh)	(MWh)	Change	
1990	1			104,726			104,726			
1991	1	0	0.0	110,943	6,217	5.9	110,943	6,217	5.9	
1992	2	1	100.0	74,109	-36,834	-33.2	148,218	37,275	33.6	
1993	2	0	0.0	148,874	74,765	100.9	297,749	149,531	100.9	
1994	2	0	0.0	150,237	1,363	0.9	300,475	2,726	0.9	
1995	2	0	0.0	156,238	6,000	4.0	312,475	12,001	4.0	
1996	2	0	0.0	157,876	1,638	1.0	315,752	3,276	1.0	
1997	2	0	0.0	160,494	2,619	1.7	320,989	5,237	1.7	
1998	3	1	50.0	119,031	-41,464	-25.8	357,093	36,104	11.2	
1999	3	0	0.0	124,018	4,987	4.2	372,055	14,962	4.2	
2000	3	0	0.0	133,917	9,898	8.0	401,750	29,695	8.0	
2001	5	2	66.7	88,659	-45,258	-33.8	443,295	41,545	10.3	
2002	5	0	0.0	101,645	12,986	14.6	508,225	64,930	14.6	
2003	5	0	0.0	104,839	3,194	3.1	524,193	15,968	3.1	
2004	5	0	0.0	106,321	1,483	1.4	531,607	7,414	1.4	
2005	5	0	0.0	103,795	-2,527	-2.4	518,973	-12,634	-2.4	
2006	5	0	0.0	99,110	-4,685	-4.5	495,549	-23,424	-4.5	
2007	5	0	0.0	104,175	5,066	5.1	520,877	25,328	5.1	
2008	5	0	0.0	111,465	7,289	7.0	557,323	36,446	7.0	
2009	5	0	0.0	103,400	-8,065	-7.2	516,998	-40,325	-7.2	
2010	5	0	0.0	105,158	1,758	1.7	525,789	8,791	1.7	
2011	5	0	0.0	106,814	1,656	1.6	534,070	8,281	1.6	
2012	6	1	20.0	95,917	-10,897	-10.2	575,504	41,434	7.8	
2013	6	0	0.0	97,368	1,450	1.5	584,206	8,702	1.5	
2014	6	0	0.0	98,939	1,571	1.6	593,632	9,426	1.6	
2015	6	0	0.0	100,573	1,634	1.7	603,436	9,805	1.7	
2016	6	0	0.0	102,273	1,701	1.7	613,640	10,204	1.7	
2017	6	0	0.0	104,177	1,904	1.9	625,065	11,425	1.9	
2018	6	0	0.0	106,149	1,972	1.9	636,896	11,832	1.9	
2019	6	0	0.0	108,161	2,011	1.9	648,965	12,068	1.9	
2020	6	0	0.0	110,180	2,019	1.9	661,081	12,117	1.9	
2021	6	0	0.0	112,229	2,049	1.9	673,375	12,294	1.9	
2022	6	0	0.0	114,355	2,126	1.9	686,131	12,756	1.9	
2023	6	0	0.0	116,527	2,171	1.9	699,159	13,028	1.9	
2024	6	0	0.0	118,802	2,276	2.0	712,813	13,654	2.0	
2025	6	0	0.0	121,148	2,346	2.0	726,888	14,075	2.0	
2026	7	1	16.7	107,091	-14,057	-11.6	749,635	22,747	3.1	
2027	7	0	0.0	109,173	2,082	1.9	764,208	14,573	1.9	
2028	7	0	0.0	111,279	2,106	1.9	778,950	14,742	1.9	
2029	7	0	0.0	113,427	2,149	1.9	793,991	15,041	1.9	
2030	7	0	0.0	115,455	2,028	1.8	808,188	14,198	1.8	

## Methodology and Results (continued) Public Street & Highway Lighting Forecast

Fleming-Mason Energy serves street light accounts which are classified in the 'Public Street & Highway Lighting' category. This class is modeled separately. Results are reported in Table 1-10.

Table 1-10
Fleming-Mason Energy
2010 Load Forecast
Public Street and Highway Lighting

		Customers		Use	Per Custon	ner	Class Sales				
•				Monthly	Annual		Annual				
	Annual	Annual	%	Average	Change	%	Total	Change	%		
	Average	Change	Change	(kWh)	(MWh)	Change	(MWh)	(MWh)	Change		
1990	2			2,792			67				
1991	3	1	50.0	1,862	-930	-33.3	67	0	0.0		
1992	3	0	0.0	1,631	-231	-12.4	59	-8	-12.4		
1993	3	0	0.0	1,606	-26	-1.6	58	-1	-1.6		
1994	3	0	0.0	1,599	-7	-0.4	58	0	-0.4		
1995	3	0	0.0	1,566	-33	-2.1	56	-1	-2.1		
1996	3	0	0.0	1,806	240	15.3	65	9	15.3		
1997	3	0	0.0	1,982	176	9.8	71	6	9.8		
1998	3	0	0.0	2,028	45	2.3	73	2	2.3		
1999	3	0	0.0	2,048	20	1.0	74	1	1.0		
2000	3	0	0.0	2,065	18	0.9	74	1	0.9		
2001	3	0	0.0	2,065	-1	0.0	74	0	0.0		
2002	3	0	0.0	2,065	0	0.0	74	0	0.0		
2003	3	0	0.0	2,080	15	0.7	75	1	0.7		
2004	3	0	0.0	2,068	-12	-0.6	74	0	-0.6		
2005	3	0	0.0	2,106	38	1.9	76	1	1.9		
2006	3	0	0.0	2,157	51	2.4	78	2	2.4		
2007	4	1	33.3	1,594	-564	-26.1	76	-1	-1.5		
2008	5	1	25.0	1,292	-302	-19.0	77	1	1.3		
2009	4	-1	-20.0	1,665	374	28.9	80	2	3.1		
2010	4	0	0.0	1,658	-7	-0.4	80	0	-0.4		
2011	4	0	0.0	1,660	2	0.1	80	0	0.1		
2012	4	0	0.0	1,672	12	0.7	80	1	0.7		
2013	4	0	0.0	1,683	11	0.7	81	1	0.7		
2014	4	0	0.0	1,695	12	0.7	81	1	0.7		
2015	4	0	0.0	1,706	11	0.7	82	1	0.7		
2016	4	0	0.0	1,718	12	0.7	82	1	0.7		
2017	4	0	0.0	1,730	11	0.7	83	1	0.7		
2018	4	0	0.0	1,741	11	0.7	84	1	0.7		
2019	4	0	0.0	1,753	11	0.7	84	1	0.7		
2020	4	0	0.0	1,764	12	0.7	85	1	0.7		
2021	4 4	0	0.0	1,776	12	0.7	85	1 1	0.7		
2022			0.0	1,788	11	0.6	86		0.6		
2023	4	0	0.0	1,799	11	0.6	86	1 1	0.6		
2024 2025	4 4	0	0.0	1,811 1,822	12 11	0.6 0.6	87 87	1	0.6 0.6		
2025	4	0	0.0	1,822	11	0.6	87 88	1	0.6		
2026	4	0			11	0.6	88 89	1	0.6		
2027	4	0	0.0	1,845 1,857	11	0.6	89 89	1	0.6		
2028	4	0	0.0	1,868	11	0.6	90	1	0.6		
	4	0	0.0	1,868	11	0.6	90	1	0.6		
2030	4	U	0.0	1,000	11	0.6	90	1	0.6		

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## Methodology and Results (continued) Peak Day Weather Scenarios

Extreme temperatures can dramatically influence Fleming-Mason Energy's peak demands. Table 1-11 and Figure 1-9 reports the impact of extreme weather on system demands.

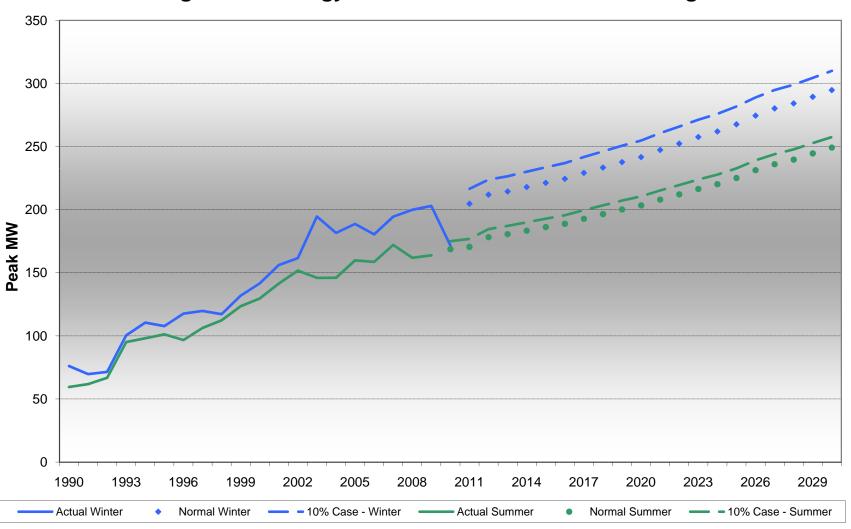
**Table 1-11** 

#### Fleming-Mason Energy Peak Day Weather Scenarios

	Winter P	eak Day Mini	mum Tempe	ratures		Sur	nmer Peak D	ay Maximu	m Temperatui	es
	Mild	Normal		Extreme			Normal		Extreme	
Degrees	10	-6	-15	-21	-30	Degrees	95	98	100	103
Probability	99%	50%	20%	10%	3%	Probability	50%	20%	10%	3%
Occurs Once I	Every	2 Years	5 Years	10 Years	30 Years		2 Years	5 Years	10 Years	30 Years
	Noncoinci	ident Winter F	Peak Demand	l - MW		ncoincident Summer Peak Demand - MW				
Season	Mild	Normal		Extreme		Year	Normal		Extreme	
						2010	169	172	175	179
2010 - 11	192	205	212	217	224	2011	170	174	177	181
2011 - 12	199	212	219	224	231	2012	178	182	185	189
2012 - 13	202	214	222	226	234	2013	181	184	187	191
2013 - 14	205	218	225	230	237	2014	183	187	190	194
2014 - 15	208	221	229	234	241	2015	186	190	193	197
2015- 16	211	224	232	237	244	2016	189	193	196	200
2016 - 17	216	229	237	242	249	2017	193	197	200	204
2017 - 18	220	233	241	246	254	2018	196	201	203	208
2018 - 19	224	238	245	251	258	2019	200	204	207	211
2019 - 20	228	242	250	255	263	2020	203	208	211	215
2020 - 21	233	247	255	261	269	2021	208	212	215	220
2021 - 22	238	252	260	266	274	2022	212	217	220	224
2022 - 23	243	258	266	271	280	2023	216	221	224	228
2023 - 24	247	262	270	276	284	2024	220	225	228	232
2024 - 25	253	268	276	282	290	2025	225	230	233	237
2025 - 26	259	275	283	289	297	2026	231	236	239	244
2026 - 27	265	280	289	295	304	2027	236	241	244	249
2027 - 28	268	284	293	299	308	2028	240	244	248	253
2028 - 29	273	289	298	304	313	2029	245	249	253	258
2029 - 30	279	295	304	310	319	2030	249	254	257	262

#### Figure 1-9

#### Fleming-Mason Energy - Normal Peaks And T&D Planning Peaks



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14-10-2010

		1. Borrower Designation KY											
LOAD FORECAST SUMMARY						2. Name of Borrower Fleming-Mason Energy Cooperative							
		3. Date June 11, 2010											
		OF CONSU	MERS		ONTHLY KWH	USAGE							
CLASS OF CONSUMER	2009	2014	2019	2009	2014	2019							
4. Residential	17,759	18,583	19,875	1,245	1,222	1,230							
5. Seasonal	4,420	4,649	4,912	247	243	255							
6. Irrigation				W									
7. Commercial & Industrial 1000 kVa or less	1,604	1,696	1,839	5,855	6,129	6,342							
8, Commercial & Industrial over 1000 kVa	5	6	6	8,616,627	8,244,883	9,013,397							
9. Public Street & Highway Lighting	4	4	4	1,665	1,695	1,753							
10. Other Sales to Public Authorities	1			<del>.</del>									
11. Sales for Resale - REA Borrowers													
12. Sales for Resale - Others													
	<u> </u>	<u> </u>				<u> </u>							
		M POWER											
ITEM	20	2009 2014		2019									
13. Annual MWh Requirements	935	35,441 1,		034,544	1,130,249								
14. Including Losses @	2.	2.8%		2.8%									
Annual Load Factor (Based on maximum monthly system peak demand)	52	.6%	54.2%		54	54.3%							
Maximum Monthly System Peak Demand     (MW) Noncoincident	20	2.9	218.0		237.7								
17. Source(s) of Supply	East Kentu	cky Power C	ooperative, I	nė.		<del></del>							
18. Previous Power Requirements Study Dated:	Jun-08					<del></del>							
19. Comments (Use an additional sheet if more sp	ace is needed	))	•										
folyower's General Manager (Signature)	Date	RUS Gener	•	esentative (Signat	ure)	Date							
	10/13/10)		Műke No	rman		8/12/20							