



2006 Load Forecast Report

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SECTION 1.0

EXECUTIVE SUMMARY

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Section 1.0

Executive Summary

East Kentucky Power Cooperative Inc. (EKPC) is a generation and transmission electric cooperative located in Winchester, Kentucky. It serves 16 member distribution cooperatives who serve approximately 495,000 retail customers. Member distribution cooperatives currently served by EKPC are listed below:

Big Sandy RECC	Jackson Energy Cooperative
Blue Grass Energy Coop. Corp.	Licking Valley RECC
Clark Energy Cooperative, Inc.	Nolin RECC
Cumberland Valley Electric	Owen Electric Cooperative, Inc.
Farmers RECC	Salt River Electric Cooperative
Fleming-Mason Energy Cooperative, Inc.	Shelby Energy Cooperative, Inc.
Grayson RECC	South Kentucky RECC
Inter-County Energy Coop. Corp.	Taylor County RECC

In April of 2008, Warren RECC will become a member of EKPC. This summary contains a 20-year projection of peak demand and energy requirements for EKPC, representing the summation of the load forecasts for each of its 16 member distribution cooperatives and starting April 1, 2008, Warren RECC.

EKPC's load forecast is prepared every two years in accordance with EKPC's Rural Utilities Service (RUS) approved Work Plan, which details the methodology employed in preparing the projections. EKPC prepares the load forecast by working jointly with member systems to prepare their load forecasts. Member projections are then summed to determine EKPC's forecast for the 20-year period. Member cooperatives use their load forecasts in developing construction work plans, long range work plans, and financial forecasts. EKPC uses the load forecast in such areas as marketing analyses, transmission planning, power supply planning, and financial forecasting.

Historical and projected total energy requirements, seasonal peak demands, and annual load factor for the EKPC system are presented in Table 1-3 (page 7). Internal demand refers to EKPC's peak demand unadjusted for interruptible loads, and net demand refers to EKPC's peak demand, taking all adjustments into account. Both are based on coincident hourly-integrated demand intervals. Load Factor is calculated using net peak demand and energy requirements.

EKPC's load forecast indicates that total energy requirements are projected to increase by 3.0 percent per year over the 2006 through 2026 period. Net winter peak demand will increase by approximately 2,400 MW, and net summer peak demand will increase by approximately 1,700 MW. Annual load factor projections are remaining steady at approximately 53 percent.

Energy projections for the residential, small commercial, and large commercial classifications indicate that during the 2006 through 2026 period, sales to the residential class will increase by 2.9 percent per year, and total commercial sales will increase by 3.6 percent per year. Class sales are presented in Tables 1-4. Please note the energy use projection for Gallatin Steel in Table 1-4. EKPC and Owen Electric (Gallatin Steel's electric provider) expect Gallatin Steel to use 1,000,000 MWh per year, adjusted by 360 hours of interruption each year.

Energy and Peak Growth Rates			
	2006-2011	2006-2016	2006-2026
Total Energy Requirements	5.6%	3.9%	3.0%
Residential Sales	4.7%	3.5%	2.9%
Total Commercial and Industrial Sales (Excluding Gallatin Steel)	8.2%	5.2%	3.6%
Firm Winter Peak Demand	6.3%	4.2%	3.2%
Firm Summer Peak Demand	5.8%	3.9%	3.0%

Factors considered in preparing the forecast include national, regional, and local economic performance, appliance saturations and efficiencies, population and housing trends, service area industrial development, electric price, household income, and weather.

Note: In Tables 1-1 through 1-3, the historical data represents the actual seasonal peaks, including any interruptible loads running at the time of the peak. The forecast assumes these loads will be interrupted. Currently, the interruptible contracts include Gallatin Steel (120 MW interruptible) and other industries (8 MW interruptible).

**Table 1-1
Historical and Projected Winter Peak Demand**

Season	Total Internal Peak Demand (MW)	Gallatin Steel		Net Peak Demand (MW)
		Interruptible Demand (MW)	Other Interruptible (MW)	
1981 - 82	1,087	0	0	1,087
1982 - 83	845	0	0	845
1983 - 84	1,151	0	0	1,151
1984 - 85	1,125	0	0	1,125
1985 - 86	1,039	0	0	1,039
1986 - 87	983	0	0	983
1987 - 88	1,104	0	0	1,104
1988 - 89	1,114	0	0	1,114
1989 - 90	1,449	0	0	1,449
1990 - 91	1,306	0	0	1,306
1991 - 92	1,383	0	0	1,383
1992 - 93	1,473	0	0	1,473
1993 - 94	1,788	0	0	1,788
1994 - 95	1,621	0	0	1,621
1995 - 96	1,990	75	0	1,915
1996 - 97	2,004	51	0	1,953
1997 - 98	1,789	93	14	1,682
1998 - 99	2,096	108	17	1,971
1999 - 00	2,169	12	17	2,140
2000 - 01	2,322	27	17	2,278
2001 - 02	2,238	129	17	2,092
2002 - 03	2,568	109	24	2,435
2003 - 04	2,610	97	26	2,487
2004 - 05	2,719	97	7	2,615
2005 - 06	2,599	107	15	2,477
2006 - 07	2,901	120	8	2,773
2007 - 08	2,976	120	8	2,848
2008 - 09	3,474	120	8	3,346
2009 - 10	3,567	120	8	3,439
2010 - 11	3,648	120	8	3,520
2011 - 12	3,723	120	8	3,595
2012 - 13	3,822	120	8	3,694
2013 - 14	3,903	120	8	3,775
2014 - 15	3,984	120	8	3,856
2015 - 16	4,059	120	8	3,931
2016 - 17	4,159	120	8	4,031
2017 - 18	4,246	120	8	4,118
2018 - 19	4,337	120	8	4,209
2019 - 20	4,427	120	8	4,299
2020 - 21	4,536	120	8	4,408
2021 - 22	4,631	120	8	4,503
2022 - 23	4,725	120	8	4,597
2023 - 24	4,806	120	8	4,678
2024 - 25	4,909	120	8	4,781
2025 - 26	4,997	120	8	4,869

Table 1-2
Historical and Projected Summer Peak Demand

Season	Gallatin Steel			Net Peak Demand (MW)
	Total Internal Peak Demand (MW)	Interruptible Demand (MW)	Other Interruptible (MW)	
1982	694	0	0	694
1983	789	0	0	789
1984	722	0	0	722
1985	776	0	0	776
1986	857	0	0	857
1987	906	0	0	906
1988	1,055	0	0	1,055
1989	1,010	0	0	1,010
1990	1,079	0	0	1,079
1991	1,164	0	0	1,164
1992	1,131	0	0	1,131
1993	1,309	0	0	1,309
1994	1,314	0	0	1,314
1995	1,518	52	0	1,466
1996	1,540	88	0	1,452
1997	1,650	101	0	1,549
1998	1,675	4	17	1,654
1999	1,754	4	12	1,738
2000	1,941	86	23	1,832
2001	1,980	116	23	1,841
2002	2,120	119	23	1,978
2003	1,996	125	26	1,845
2004	2,052	97	7	1,948
2005	2,180	0	10	2,170
2006	2,279	120	8	2,151
2007	2,341	120	8	2,213
2008	2,771	120	8	2,643
2009	2,849	120	8	2,721
2010	2,919	120	8	2,791
2011	2,980	120	8	2,852
2012	3,035	120	8	2,907
2013	3,106	120	8	2,978
2014	3,164	120	8	3,036
2015	3,224	120	8	3,096
2016	3,281	120	8	3,153
2017	3,353	120	8	3,225
2018	3,418	120	8	3,290
2019	3,487	120	8	3,359
2020	3,551	120	8	3,423
2021	3,633	120	8	3,505
2022	3,705	120	8	3,577
2023	3,776	120	8	3,648
2024	3,837	120	8	3,709
2025	3,916	120	8	3,788
2026	3,981	120	8	3,853

**Table 1-3
Peak Demands And Total Requirements
~Historical and Projected ~**

Season	Net Winter Peak Demand (MW)	Year	Net Summer Peak Demand (MW)	Year	Total Requirements (MWh)	Load Factor (%)
1981 - 82	1,087	1982	694	1982	3,904,954	41%
1982 - 83	845	1983	789	1983	4,099,007	55%
1983 - 84	1,151	1984	722	1984	4,095,268	41%
1984 - 85	1,125	1985	776	1985	4,264,517	43%
1985 - 86	1,039	1986	857	1986	4,470,627	49%
1986 - 87	983	1987	906	1987	4,710,898	55%
1987 - 88	1,104	1988	1,055	1988	5,122,703	53%
1988 - 89	1,114	1989	1,010	1989	5,347,081	55%
1989 - 90	1,449	1990	1,079	1990	5,489,092	43%
1990 - 91	1,306	1991	1,164	1991	5,958,422	52%
1991 - 92	1,383	1992	1,131	1992	6,099,308	50%
1992 - 93	1,473	1993	1,309	1993	6,860,902	53%
1993 - 94	1,788	1994	1,314	1994	6,917,414	44%
1994 - 95	1,621	1995	1,466	1995	7,761,980	55%
1995 - 96	1,915	1996	1,452	1996	8,505,621	51%
1996 - 97	1,953	1997	1,549	1997	8,850,394	52%
1997 - 98	1,682	1998	1,654	1998	9,073,950	61%
1998 - 99	1,971	1999	1,738	1999	9,825,866	57%
1999 - 00	2,140	2000	1,832	2000	10,521,400	56%
2000 - 01	2,278	2001	1,841	2001	10,750,900	54%
2001 - 02	2,092	2002	1,978	2002	11,456,830	62%
2002 - 03	2,435	2003	1,845	2003	11,568,314	54%
2003 - 04	2,489	2004	1,948	2004	11,865,797	54%
2004 - 05	2,615	2005	2,170	2005	12,527,829	55%
2005 - 06	2,477	2006	2,151	2006	12,556,759	58%
2006 - 07	2,773	2007	2,213	2007	12,956,841	53%
2007 - 08	2,848	2008	2,643	2008	14,793,556	59%
2008 - 09	3,346	2009	2,721	2009	15,716,559	54%
2009 - 10	3,439	2010	2,791	2010	16,133,913	53%
2010 - 11	3,520	2011	2,852	2011	16,499,166	54%
2011 - 12	3,595	2012	2,907	2012	16,879,983	54%
2012 - 13	3,694	2013	2,978	2013	17,261,436	53%
2013 - 14	3,775	2014	3,036	2014	17,621,408	53%
2014 - 15	3,856	2015	3,096	2015	17,981,314	53%
2015 - 16	3,931	2016	3,153	2016	18,370,418	53%
2016 - 17	4,031	2017	3,225	2017	18,744,186	53%
2017 - 18	4,118	2018	3,290	2018	19,129,686	53%
2018 - 19	4,209	2019	3,359	2019	19,539,698	53%
2019 - 20	4,299	2020	3,423	2020	19,977,370	53%
2020 - 21	4,408	2021	3,505	2021	20,408,388	53%
2021 - 22	4,503	2022	3,577	2022	20,837,354	53%
2022 - 23	4,597	2023	3,648	2023	21,258,006	53%
2023 - 24	4,678	2024	3,709	2024	21,683,180	53%
2024 - 25	4,781	2025	3,788	2025	22,086,886	53%
2025 - 26	4,869	2026	3,853	2026	22,475,651	53%

**Table 1-4
Total Member System Retail Energy Sales**

Year	Residential Sales (MWh)	Seasonal Sales (MWh)	Small Comm. Sales (MWh)	Public Buildings (MWh)	Large Comm. Sales (MWh)	Gallatin Steel (MWh)	Other Sales (MWh)	Total Retail Sales (MWh)
1990	3,495,899	9,094	813,371	10,770	653,502	0	3,737	4,986,373
1991	3,769,089	9,423	868,031	11,744	725,419	0	4,029	5,387,735
1992	3,811,817	9,756	913,599	13,345	776,268	0	4,304	5,529,089
1993	4,228,581	10,144	980,301	15,684	968,345	0	5,081	6,208,135
1994	4,283,267	10,280	1,014,549	16,073	1,026,927	0	4,156	6,355,251
1995	4,591,084	11,066	1,097,729	17,715	1,119,361	279,070	5,042	7,121,068
1996	4,873,716	12,342	1,138,469	18,732	1,188,760	640,756	5,555	7,878,329
1997	4,899,179	11,888	1,163,683	18,151	1,256,829	755,279	5,663	8,110,671
1998	5,107,125	11,476	1,230,450	19,191	1,345,859	696,051	5,601	8,415,754
1999	5,318,860	11,496	1,336,957	19,763	1,415,128	901,686	5,756	9,009,647
2000	5,624,384	12,479	1,446,958	20,397	1,503,523	917,983	6,160	9,531,884
2001	5,795,728	12,769	1,505,480	21,032	1,666,141	992,711	6,545	10,000,406
2002	6,164,400	14,076	1,577,590	22,776	1,798,352	1,005,493	7,107	10,589,794
2003	6,203,143	13,445	1,550,248	23,975	1,874,044	1,007,676	7,447	10,679,978
2004	6,335,445	13,846	1,598,111	25,266	1,989,780	1,047,466	7,498	11,017,413
2005	6,743,486	14,501	1,733,280	25,065	2,020,930	992,824	7,711	11,537,797
2006	6,702,645	14,445	1,780,456	25,185	2,116,434	981,378	7,945	11,628,489
2007	6,865,831	14,945	1,844,468	25,880	2,257,560	981,718	8,157	11,998,559
2008	7,576,749	15,470	2,143,068	26,578	2,927,518	982,351	12,341	13,684,074
2009	8,036,352	16,009	2,271,045	27,330	3,187,814	981,697	13,773	14,534,020
2010	8,246,901	16,493	2,330,473	28,023	3,301,354	981,659	14,125	14,919,028
2011	8,432,930	16,911	2,387,349	28,674	3,396,327	981,566	14,469	15,258,226
2012	8,650,448	17,466	2,443,562	29,377	3,473,788	981,425	14,817	15,610,882
2013	8,868,278	18,016	2,499,753	30,115	3,550,403	981,156	15,156	15,962,877
2014	9,069,536	18,535	2,555,818	30,813	3,625,976	981,046	15,492	16,297,216
2015	9,270,396	19,050	2,612,249	31,491	3,700,886	981,063	15,824	16,630,959
2016	9,479,347	19,593	2,669,288	32,174	3,792,252	981,254	16,155	16,990,064
2017	9,681,304	20,098	2,727,493	32,868	3,875,814	981,077	16,484	17,335,138
2018	9,900,800	20,637	2,786,650	33,574	3,951,703	980,691	16,815	17,690,869
2019	10,120,469	21,220	2,846,226	34,287	4,052,080	980,619	17,140	18,072,040
2020	10,371,328	21,880	2,905,708	34,941	4,143,897	980,793	17,466	18,476,014
2021	10,624,237	22,524	2,965,803	35,626	4,227,112	980,680	17,788	18,873,770
2022	10,867,695	23,173	3,025,759	36,294	4,317,896	980,577	18,110	19,269,504
2023	11,112,981	23,824	3,085,307	36,890	4,399,917	980,480	18,429	19,657,828
2024	11,371,259	24,512	3,144,693	37,483	4,473,032	980,513	18,745	20,050,237
2025	11,605,707	25,103	3,203,587	38,068	4,553,769	980,287	19,057	20,425,578
2026	11,840,688	25,765	3,262,188	38,649	4,617,527	980,266	19,365	20,784,448

**Assumptions: Gallatin will be interrupted 360 hours per year;
Warren will become a member April 1, 2008.**

Table 1-4 continued
Energy Sales and Total Requirements

Year	Total Retail Sales (MWh)	Office Use (MWh)	% Loss	EKPC Sales to Members (MWh)	EKPC Office Use (MWh)	Transmission Loss (%)	Total Requirements (MWh)
1990	4,986,373	5,087	5.7	5,295,459	6,287	3.4	5,489,092
1991	5,387,735	5,333	6.3	5,755,588	6,798	3.3	5,958,422
1992	5,529,089	5,242	6.2	5,903,267	7,559	3.1	6,099,308
1993	6,208,135	5,552	6.0	6,612,688	8,026	3.5	6,860,902
1994	6,355,251	5,614	5.5	6,727,959	8,541	2.6	6,917,414
1995	7,121,068	5,711	5.5	7,542,687	9,197	2.7	7,761,980
1996	7,878,329	6,167	5.0	8,301,379	8,856	2.3	8,505,621
1997	8,110,671	6,349	5.2	8,559,022	8,505	3.2	8,850,394
1998	8,415,754	6,121	4.5	8,821,630	7,236	2.7	9,073,950
1999	9,009,647	6,040	4.8	9,468,917	8,157	3.5	9,825,866
2000	9,531,884	6,606	5.0	10,039,016	7,862	4.5	10,521,400
2001	10,000,406	6,793	4.0	10,427,269	8,205	2.9	10,750,900
2002	10,589,794	7,562	4.3	11,071,863	8,818	3.3	11,456,830
2003	10,679,978	7,681	4.5	11,190,811	9,123	3.2	11,568,314
2004	11,017,413	8,289	4.5	11,540,687	9,106	2.7	11,865,797
2005	11,537,797	8,629	4.2	12,049,271	8,902	3.7	12,527,829
2006	11,628,489	8,819	4.4	12,170,871	9,185	3.0	12,556,759
2007	11,998,559	8,819	4.4	12,558,905	9,231	3.0	12,956,841
2008	13,684,074	9,489	4.5	14,340,472	9,277	3.0	14,793,556
2009	14,534,020	9,489	4.5	15,235,692	9,370	3.0	15,716,559
2010	14,919,028	9,489	4.6	15,640,431	9,464	3.0	16,133,913
2011	15,258,226	9,489	4.5	15,994,633	9,558	3.0	16,499,166
2012	15,610,882	9,489	4.5	16,363,929	9,654	3.0	16,879,983
2013	15,962,877	9,489	4.6	16,733,842	9,750	3.0	17,261,436
2014	16,297,216	9,489	4.5	17,082,918	9,848	3.0	17,621,408
2015	16,630,959	9,489	4.5	17,431,928	9,946	3.0	17,981,314
2016	16,990,064	9,489	4.5	17,809,259	10,046	3.0	18,370,418
2017	17,335,138	9,489	4.6	18,171,714	10,146	3.0	18,744,186
2018	17,690,869	9,489	4.6	18,545,547	10,248	3.0	19,129,686
2019	18,072,040	9,489	4.5	18,943,156	10,350	3.0	19,539,698
2020	18,476,014	9,489	4.6	19,367,595	10,454	3.0	19,977,370
2021	18,873,770	9,489	4.6	19,785,578	10,558	3.0	20,408,388
2022	19,269,504	9,489	4.6	20,201,569	10,664	3.0	20,837,354
2023	19,657,828	9,489	4.6	20,609,495	10,771	3.0	21,258,006
2024	20,050,237	9,489	4.6	21,021,807	10,878	3.0	21,683,180
2025	20,425,578	9,489	4.6	21,413,292	10,987	3.0	22,086,886
2026	20,784,448	9,489	4.6	21,790,284	11,097	3.0	22,475,651

**Assumptions: Gallatin will be interrupted 360 hours per year;
Warren will become a member April 1, 2008.**

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SECTION 2.0

LOAD FORECAST METHODOLOGY

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Section 2.0

Load Forecast Methodology

2.1 Coordination with Member Systems

EKPC prepares a load forecast by working jointly with its member systems in preparing their individual load forecasts. These individual forecasts are included in Appendix A. Member system projections are then summed to determine EKPC's forecast for the 20-year period. Factors considered in preparing the forecasts include national, regional, and local economic performance, appliance saturations and efficiencies, population and housing trends, service area industrial development, electric price, household income, and weather. Each member system reviews the preliminary forecast for reasonability. Final projections reflect analysis of historical data combined with the experience and judgment of the member system manager and staff. In recognition of the uncertainty present in long-term forecasting, both high and low case projections are also prepared (see Section 8).

The general steps followed by EKPC in developing its load forecast are summarized as follows:

1. EKPC prepares a preliminary forecast for each of its member systems which is based on retail sales forecasts for six classes: residential, seasonal, small commercial, public buildings, large commercial, and other. The classifications are taken from the Rural Utilities Services (RUS) Form 7, which contains publicly available retail sales data for member systems. EKPC's sales to member systems are then determined by adding distribution losses to total retail sales. EKPC's total requirements are estimated by adding transmission losses to total sales. Seasonal peak demands are determined by applying peak factors for heating, cooling, and water heating to energy. The same methodology is used in developing each of the 16 member system forecasts.

2. EKPC meets with each member system to discuss their preliminary forecast. Member system staff at these meetings includes the manager and other key individuals.

3. The preliminary forecast is usually revised based on mutual agreement of EKPC staff and member system's Manager and staff. This final forecast is approved by the board of directors of each member system.
4. The EKPC forecast is the summation of the forecasts of its 16 members.

There is close collaboration and coordination between EKPC and its member systems in this process. This working relationship is essential since EKPC has no retail members. Input from member systems relating to such things as industrial development, subdivision growth, and other specific service area information is crucial to the preparation of accurate forecasts. Review meetings provide opportunities to critique the assumptions and the overall results of the preliminary forecast. The resulting load forecast reflects a combination of EKPC's structured forecast methodology tempered by the judgment and experience of the member system staff. Over the years, this forecasting process has resulted in projections accepted by and useful to both EKPC and its members. Member cooperatives use their load forecast in developing two, three and four-year work plans, long-range work plans, and financial forecasts. EKPC uses the load forecast in such areas as marketing analyses, transmission planning, generation planning, and financial forecasting.

2.2 Forecast Model Summary

Models are used to develop the load forecast for each member system. A brief overview of each is given in this section. Specifics regarding the models and resulting forecasts are presented in Sections 4 through 8 of this report.

2.2.1 Regional Economic Model

EKPC has divided its members' service area into six economic regions with economic activity projected for each. Regional forecasts for population, income and employment are developed and used as inputs to residential customer and small commercial customer and energy forecasts. Therefore, EKPC's economic assumptions regarding its load forecast are consistent.

2.2.2 Residential Sales

This class of energy sales is forecasted using regression analysis. Variables include electric price, economic activity, and regional population growth. The number of residential customers is also projected with regression analysis using economic variables such as population. Residential energy use per customer is calculated by dividing the forecasted number of customers into the energy sales forecast.

2.2.3 Small Commercial Sales

Small commercial energy sales forecast results from regression analysis. The number of small commercial customers is forecasted by means of regression analysis on various regional economic data in addition to the resulting residential customer forecast described above. Exogenous variables include real electric price and economic activity. Energy use per customer is calculated as with the residential class.

2.2.4 Large Commercial Sales

This class is projected by member systems and EKPC. Member systems project existing large loads. EKPC projects new large loads based on historical development, the presence of industrial parks, and the economy of the service territory.

2.2.5 Seasonal Sales Forecast

Seasonal sales are sales to customers with seasonal residences such as vacation homes and weekend retreats. Seasonal sales are relatively small and are reported by only one of EKPC's member systems.

2.2.6 Public Building Sales Forecast

Public Building sales include sales to accounts such as government buildings and libraries. The sales are relatively small and are reported by only two of EKPC's member systems.

2.2.7 Other Sales

The 'Other Sales' class represents street lighting. This class is relatively small and is usually projected as a function of residential sales. There are 11 member systems that report this class.

2.2.8 Peak Demand and High and Low Cases

Seasonal peak demands are projected using the summation of monthly energy usages and load factors for the various classes of customers. Residential energy usage components include heating, cooling, water heating, and other usage. Using load factors, demand is calculated for each component and then summed to obtain the residential portion of the seasonal peak. Small commercial and large commercial classes use load factors on the class usage to obtain the class contribution to the seasonal peak. High and low case projections have been constructed around the base case forecast. Weather and customer growth assumptions are two significant inputs to the high and low cases.

SECTION 3.0

**LOAD FORECAST
DISCUSSION**

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Section 3.0

Load Forecast Discussion

3.1 Introduction

Key assumptions and trends used in the preparation of the load forecast are described in this section along with a discussion of the EKPC service area. Projected peak demand, annual energy requirements, and growth rates are summarized. Differences between the 2004 and 2006 load forecasts are discussed.

3.2 Input Assumptions

Key forecast assumptions used in developing the EKPC and member system load forecasts are:

1. EKPC's member systems will add approximately 260,000 residential customers by 2026. This represents an increase of 2.3 percent per year. This includes Warren RECC beginning April 2008.
2. EKPC uses an economic model to help develop its load forecast. The model uses data for 89 Kentucky counties in seven geographic regions. The economy of these counties will experience modest growth over the next 20 years. The average unemployment rate will remain relatively flat at 6.8 percent during the 2006 to 2026 timeframe. Total employment levels will rise by 330,000 jobs. Manufacturing employment will decrease from 272,000 jobs in 2004 to 210,000 jobs in 2020. Regional population will grow from 3.5 million people in 2006 to 4.0 million people in 2026, an average growth of 0.7 percent per year.
3. From 2006 through 2026, approximately 70 percent of all new households will have electric heat. Eighty-five percent of all new households will have electric water heating. Nearly all new homes will have electric air conditioning, either central or room.
4. Over the forecast period, naturally occurring appliance efficiency improvements is expected to decrease retail sales nearly 500,000 MWh. Appliances particularly affected are refrigerators, freezers, and air conditioners.
5. Residential customer growth and local area economic activity will be the major determinants of small commercial growth.

6. Forecasted load growth is based on the assumption of normal weather, as defined by the National Oceanic and Atmospheric Administration, occurring over the next 20 years. Seven different stations are used depending on geographic location of the member system.

3.3 Discussion of Service Area

In EKPC's service area, electricity is the primary method for water heating and home heating. Around 85 percent of all homes have electric water heating, and about 54 percent have electric heat. In 2005, 58 percent of EKPC's member retail sales were to the residential class and residential customer use averaged 1,234 kWh per month. While EKPC's load can be considered primarily residential in nature, Figure 3-3 illustrates that commercial/industrial customers make up an increasingly larger share of total retail sales.

The economy of EKPC's service area is quite varied. Areas around Lexington and Louisville have a significant amount of manufacturing industry. The region around Cincinnati contains a growing number of retail trade and service jobs while the eastern and southeastern portions of EKPC's service area are dominated by the mining industry. Tourism is an important aspect of EKPC's southern and southwestern service area, with Lake Cumberland and Mammoth Cave National Park contributing to jobs in the service and retail trade industries. Textile and apparel manufacturing employ a significant number of workers throughout the service area, particularly in the northeastern and southern portions.

3.4 Summary of Results

The forecast indicates that for the period 2006 through 2026, total energy requirements will increase by 3.0 percent per year. Winter and summer net peak demand will increase by 3.2 percent and 3.0 percent, respectively. Annual load factor is projected to remain relatively flat at around 53 percent. Sales to the residential class are projected to increase by 2.9 percent per year, commercial sales are projected to increase by 3.6 percent per year. These growth rates do include Warren RECC as a new member beginning April 2008. Table 3-1 summarizes demand and total requirements. Figure 3-1 summarizes class sales growth rates. Figure 3-2 reports growth rates by class.

The resulting load forecast is for annual energy requirements to increase from 12,527,829 MWh in 2005 to 22,475,651 MWh in 2026. Annual net winter peak demand increases from 2,477 MW to 4,869 MW during the same time period. Table 1-3 on page 7 reports actual and projected total energy requirements, seasonal peak demands, and annual load

factor for the years 1990 through 2026. Figures 3-3, 3-4, 3-5 and 3-6 illustrate this information graphically.

Actual and projected requirements by customer class are presented in Table 1-4 on pages 8 and 9, with 5, 10, and 20-year average annual energy growth rates reported in Tables 3-2, 3-3 and 3-4. Forecasted monthly sales for the first two years of the forecast are presented by class in Table 3-5. Table 1-4 reports sales to member systems and total requirements, which includes office use and transmission losses. Figure 3-5 reports the winter peak forecast of EKPC total system and Figure 3-7 shows the growth in the winter peak for each member system.

**Table 3-1
Projected Energy and Peak Demand Growth
Compound Annual Rates of Change**

	Historical Growth Rates			2006 Forecast Growth Rates			2006 Forecast Growth Rates		
	2000-2005	1995-2005	1985-2005	2006-2011	2006-2016	2006-2026	2006-2011	2006-2016	2006-2026
Total Energy Requirements	3.6%	6.3%	7.2%	5.6%	3.9%	3.0%	2.8%	2.5%	2.3%
Firm Winter Peak Demand	4.6%	5.3%	4.5%	6.3%	4.2%	3.2%	3.5%	2.9%	2.6%
Firm Summer Peak Demand	2.3%	3.7%	5.3%	5.8%	3.9%	3.0%	2.7%	2.4%	2.3%

**Figure 3-1
Average Annual Sales Growth
2006-2026**

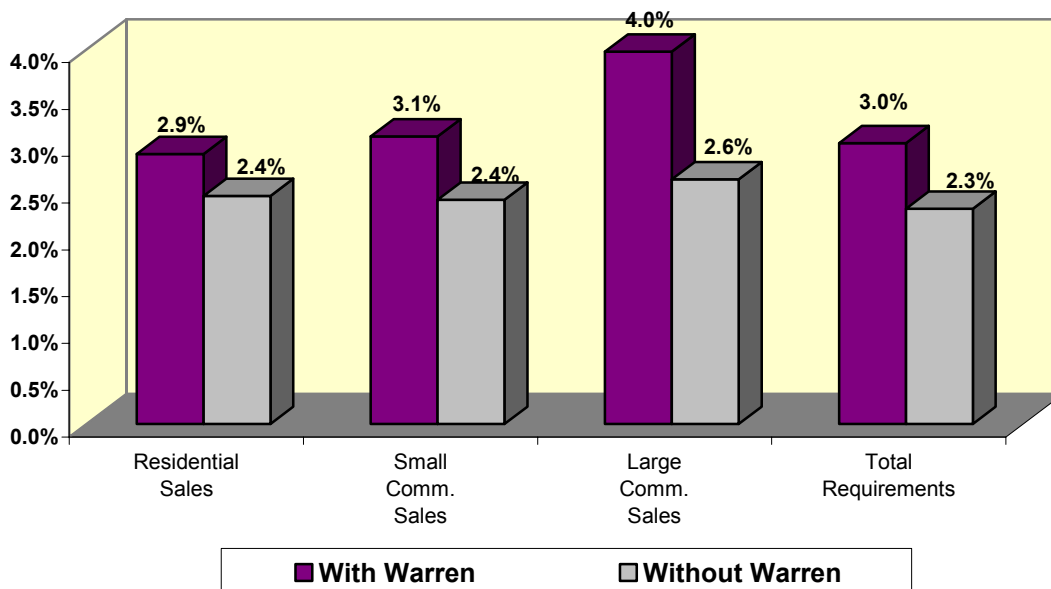


Figure 3-2
Average Annual Growth Sales Including Warren
2006-2026

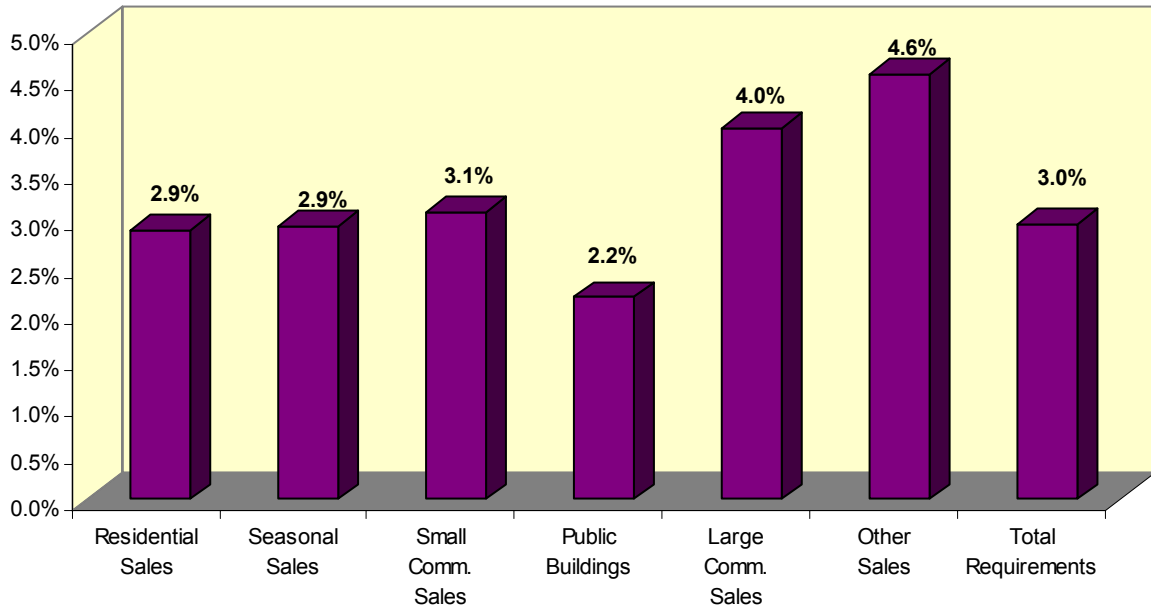
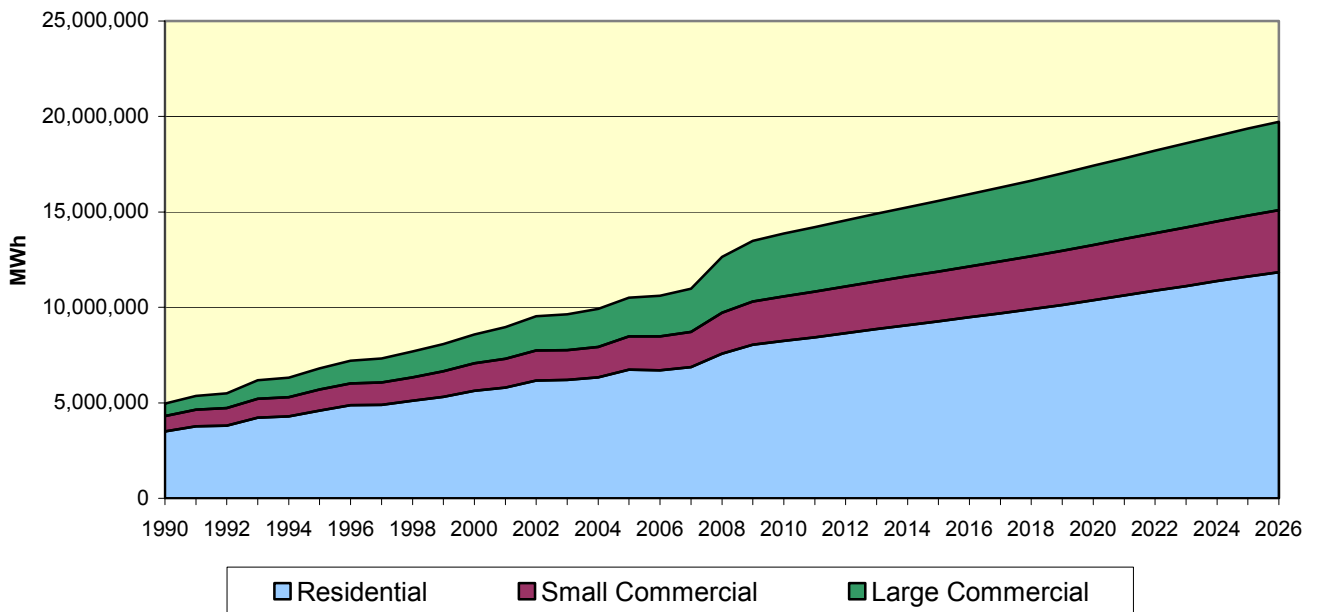
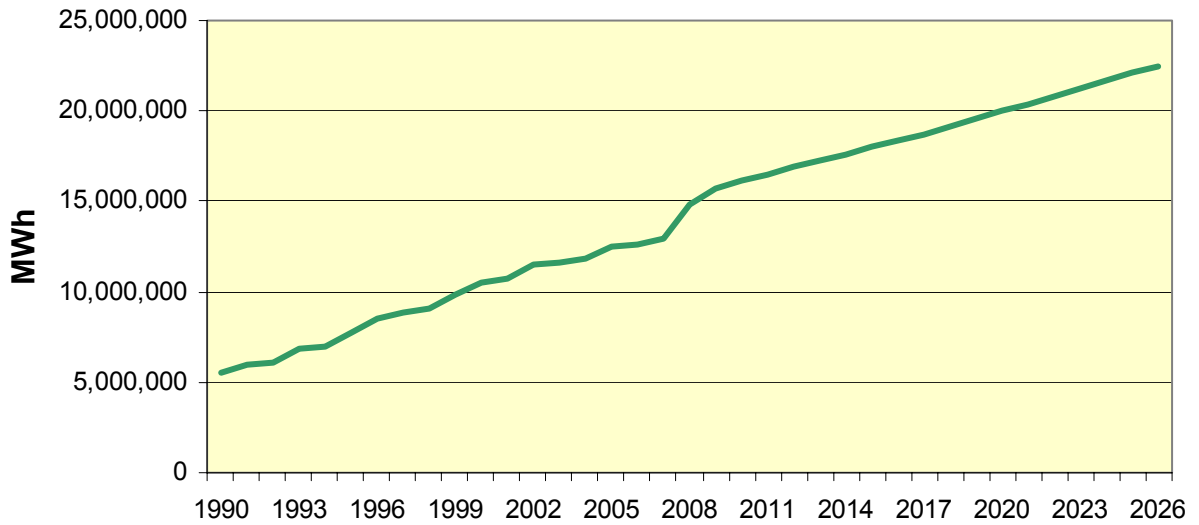


Figure 3-3
Components of Member System Retail Sales



**Figure 3-4
EKPC Total Requirements**



**Figure 3-5
Net Peak Demands**

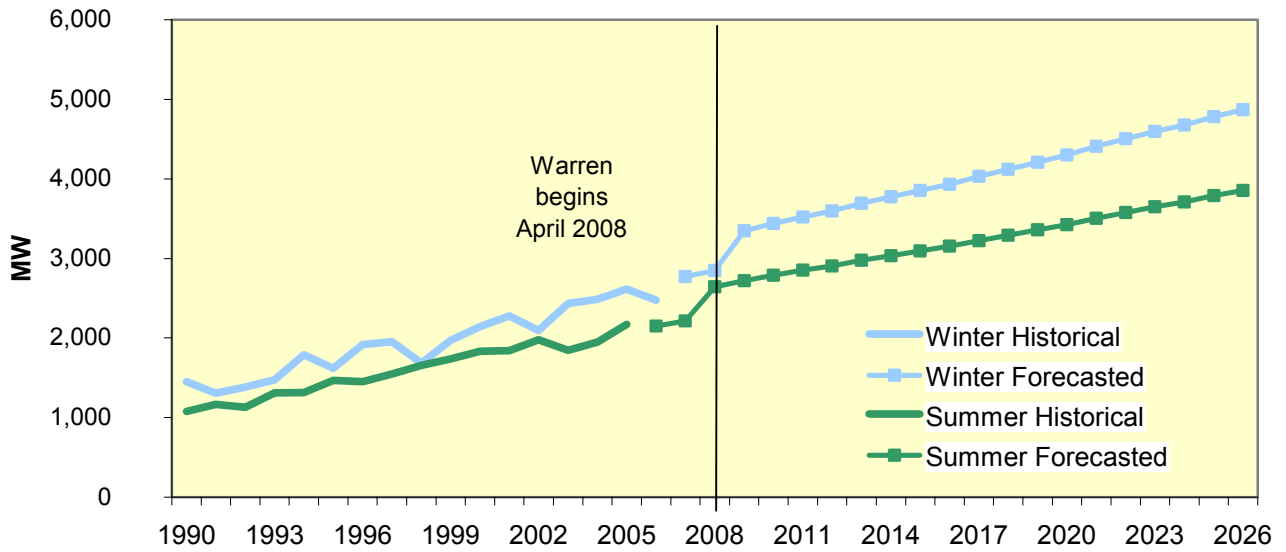


Figure 3-6
Annual System Load Factor
Historical and Forecasted

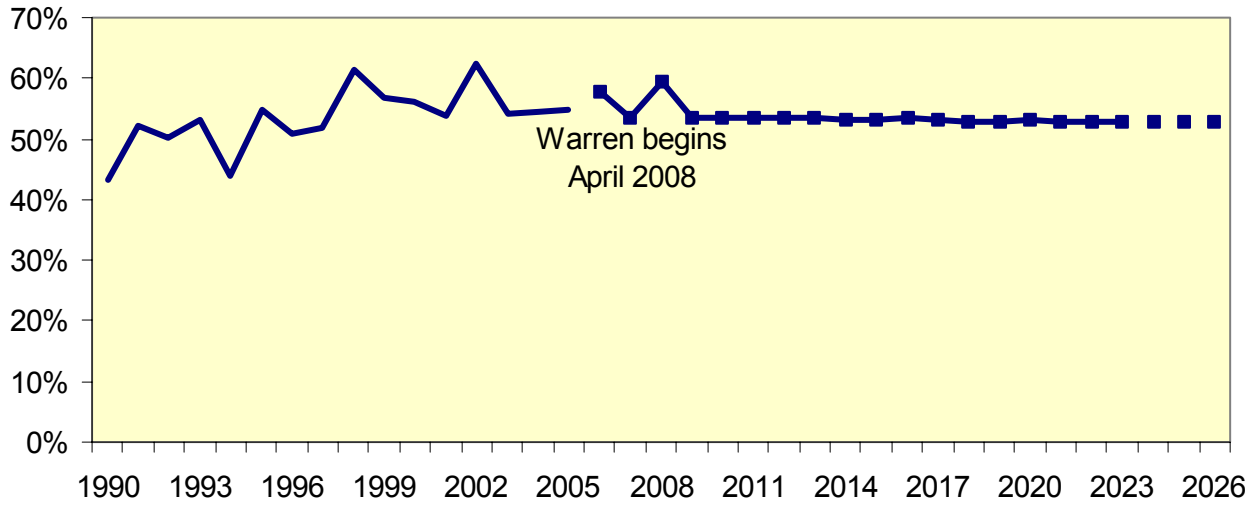


Figure 3-7
Winter Peak Demand
MW Growth 2006-2016

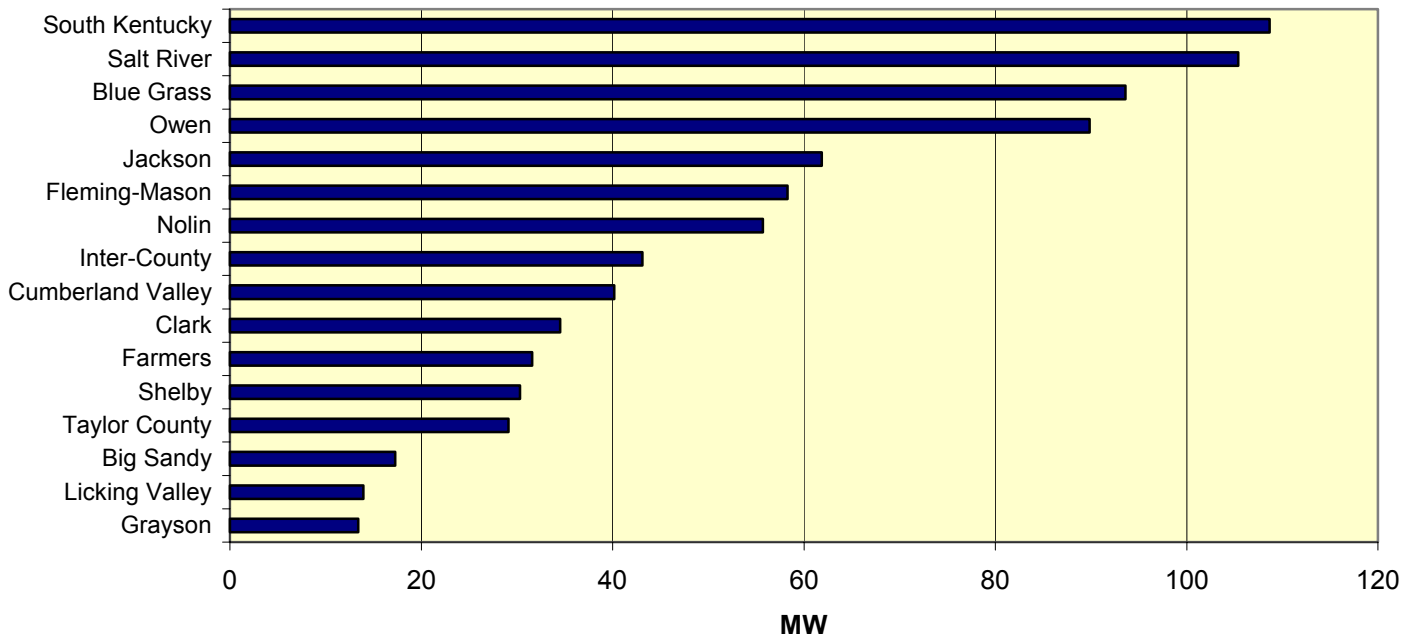


Table 3-2
Member System Average Annual Energy Growth Rates
2006 – 2011

Member Cooperative	Residential Sales (%)	Small Commercial Sales (%)	Large Commercial Sales (%)	Total Sales (%)
Big Sandy	1.8%	2.3%	0.0%	1.9%
Blue Grass	2.8%	3.8%	3.7%	3.1%
Clark	2.4%	2.0%	8.7%	2.5%
Cumberland Valley	2.6%	2.1%	6.1%	3.4%
Farmers	2.4%	2.7%	0.8%	2.1%
Fleming-Mason	2.2%	3.5%	3.2%	3.0%
Grayson	2.0%	2.0%	0.7%	1.9%
Inter-County	2.4%	4.4%	12.2%	3.3%
Jackson Energy	1.7%	2.3%	6.4%	2.2%
Licking Valley	2.0%	1.5%	0.6%	1.8%
Nolin	2.7%	3.3%	4.0%	3.1%
Owen	3.3%	3.7%	2.3%	3.2%
Salt River	3.7%	2.3%	15.1%	5.1%
Shelby	3.2%	3.0%	1.8%	2.7%
South Kentucky	2.6%	3.5%	5.2%	3.1%
Taylor County	2.3%	2.7%	1.6%	2.2%
East Kentucky Power (Includes Warren)	4.7%	6.0%	9.9%	5.6%

Table 3-3
Member System Average Annual Energy Growth Rates
2006 – 2016

Member Cooperative	Residential Sales (%)	Small Commercial Sales (%)	Large Commercial Sales (%)	Total Sales (%)
Big Sandy	1.8%	2.1%	0.0%	1.8%
Blue Grass	2.7%	3.2%	2.6%	2.7%
Clark	2.4%	1.9%	8.2%	2.5%
Cumberland Valley	2.5%	1.9%	3.7%	2.7%
Farmers	2.3%	2.2%	0.8%	1.9%
Fleming-Mason	2.1%	3.2%	2.8%	2.6%
Grayson	1.8%	1.6%	0.6%	1.7%
Inter-County	2.3%	3.8%	8.8%	3.0%
Jackson Energy	1.8%	2.1%	5.7%	2.2%
Licking Valley	1.8%	1.4%	0.7%	1.7%
Nolin	2.6%	2.9%	3.7%	2.9%
Owen	3.3%	3.3%	2.0%	3.1%
Salt River	3.4%	2.2%	7.8%	3.8%
Shelby	2.9%	2.8%	1.6%	2.4%
South Kentucky	2.7%	3.1%	4.3%	3.0%
Taylor County	2.0%	2.4%	1.3%	2.0%
East Kentucky Power (Includes Warren)	3.5%	4.1%	6.0%	3.9%

Table 3-4
Average Annual Energy Growth Rates
2006 – 2026

Member Cooperative	Residential Sales (%)	Small Commercial Sales (%)	Large Commercial Sales (%)	Total Sales (%)
Big Sandy	1.8%	1.9%	4.7%	1.9%
Blue Grass	2.5%	2.8%	2.4%	2.5%
Clark	2.4%	1.8%	4.0%	2.3%
Cumberland Valley	2.5%	1.8%	2.6%	2.4%
Farmers	2.1%	1.8%	1.4%	1.9%
Fleming-Mason	1.9%	2.8%	2.4%	2.3%
Grayson	1.8%	1.7%	2.3%	1.8%
Inter-County	2.2%	3.2%	5.6%	2.6%
Jackson Energy	1.8%	1.9%	4.2%	2.1%
Licking Valley	1.8%	1.3%	2.8%	1.8%
Nolin	2.5%	2.7%	3.1%	2.7%
Owen	3.1%	2.9%	2.2%	2.9%
Salt River	3.1%	2.0%	4.1%	3.1%
Shelby	2.6%	2.5%	1.5%	2.2%
South Kentucky	2.7%	2.7%	3.3%	2.7%
Taylor County	1.8%	2.2%	1.4%	1.9%
East Kentucky Power (Includes Warren)	2.9%	3.1%	4.0%	2.9%

**Table 3-5
Monthly Class Energy Sales Forecasts
Excluding Gallatin Steel Sales
2006, 2007, 2008**

Year	Month	Residential Sales (MWh)	Small Comm. Sales (MWh)	Large Comm. Sales (MWh)	Other Sales (MWh)	Total Retail Sales (MWh)
2006	1	734,636	143,314	169,921	667	1,048,538
2006	2	705,886	144,296	169,624	662	1,020,468
2006	3	625,183	141,897	172,112	658	939,850
2006	4	514,162	141,340	171,618	654	827,775
2006	5	446,259	141,812	172,770	656	761,497
2006	6	473,558	149,154	180,317	653	803,682
2006	7	543,076	157,550	180,221	656	881,503
2006	8	553,383	161,235	184,912	656	900,187
2006	9	490,556	158,713	183,520	662	833,451
2006	10	437,293	147,095	178,598	665	763,651
2006	11	532,568	144,921	175,665	674	853,828
2006	12	685,715	149,128	177,156	682	1,012,682
Total		6,742,275	1,780,456	2,116,434	7,945	10,647,110
2007	1	761,382	150,440	183,753	677	1,096,252
2007	2	735,886	151,015	182,253	677	1,069,830
2007	3	641,536	148,730	184,327	675	975,268
2007	4	530,365	147,202	183,649	674	861,890
2007	5	456,631	147,234	185,666	675	790,206
2007	6	479,633	154,158	192,086	675	826,552
2007	7	542,721	162,268	191,611	677	897,277
2007	8	554,791	165,480	195,850	678	916,799
2007	9	498,016	162,038	193,555	682	854,290
2007	10	456,721	152,318	189,555	684	799,277
2007	11	548,318	149,975	187,305	689	886,287
2007	12	700,658	153,610	187,951	694	1,042,912
Total		6,906,656	1,844,468	2,257,560	8,157	11,016,841
2008	1	775,751	156,363	192,919	700	1,125,733
2008	2	746,932	156,543	191,577	701	1,095,753
2008	3	656,848	154,805	193,700	700	1,006,053
2008	4	609,177	176,865	249,575	1,126	1,036,743
2008	5	521,153	175,973	253,059	1,136	951,321
2008	6	542,417	184,723	264,515	1,141	992,796
2008	7	614,838	196,182	265,792	1,146	1,077,958
2008	8	632,915	200,552	272,633	1,145	1,107,245
2008	9	571,963	194,802	271,215	1,140	1,039,120
2008	10	530,458	183,102	260,645	1,138	975,343
2008	11	622,743	178,961	257,561	1,134	1,060,399
2008	12	793,602	184,196	254,326	1,134	1,233,258
Total		7,618,797	2,143,068	2,927,518	12,341	12,701,724

Residential sales is the sum of the Residential, Seasonal, and Public Building class sales.

3.5 Major Differences Between EKPC's 2006 and 2004 Load Forecasts

There are three major changes in the 2006 Load Forecast: 1.) Gallatin Steel will be interrupted 360 hours each year as a result of contract negotiations. The 2004 forecast assumed 500 hours. 2.) Based on the most recent End-Use Survey, the assumption for electric furnace saturation is higher than in the 2004 Load Forecast. 3.) Household formation has slowed relative to the 2004 forecast. Table 3-6 shows the differences between the forecasts. Figures 3-7 and 3-8 compare the peak demand projections for the past several forecasts.

Table 3-6

Forecast Comparison 2006 Versus 2004				
		2006	2004	Difference
Residential Sales, MWh				
	2007	6,865,831	7,183,613	-317,783
	2012	8,650,448	9,277,560	-627,113
	2017	9,681,304	10,734,638	-1,053,334
Total Commercial and Industrial Sales, MWh				
	2007	4,102,027	4,202,123	-100,095
	2012	5,917,350	6,157,558	-240,208
	2017	6,603,307	6,938,307	-335,000
Gallatin Steel, MWh	2007-2017	982,000	960,000	22,000
Residential Customers				
	2007	477,298	486,697	-9,399
	2012	580,588	600,127	-19,539
	2017	635,513	666,258	-30,745
Firm Winter Peak, MW				
	2007	2,773	2,838	-65
	2012	3,595	3,753	-158
	2017	4,031	4,305	-274
Firm Summer Peak, MW				
	2007	2,213	2,300	-87
	2012	2,907	3,089	-182
	2017	3,225	3,519	-294
<i>Note: Warren becomes member in April 2008.</i>				

Figure 3-7
Historical Load Forecast Studies
Winter Peak Demand Projections

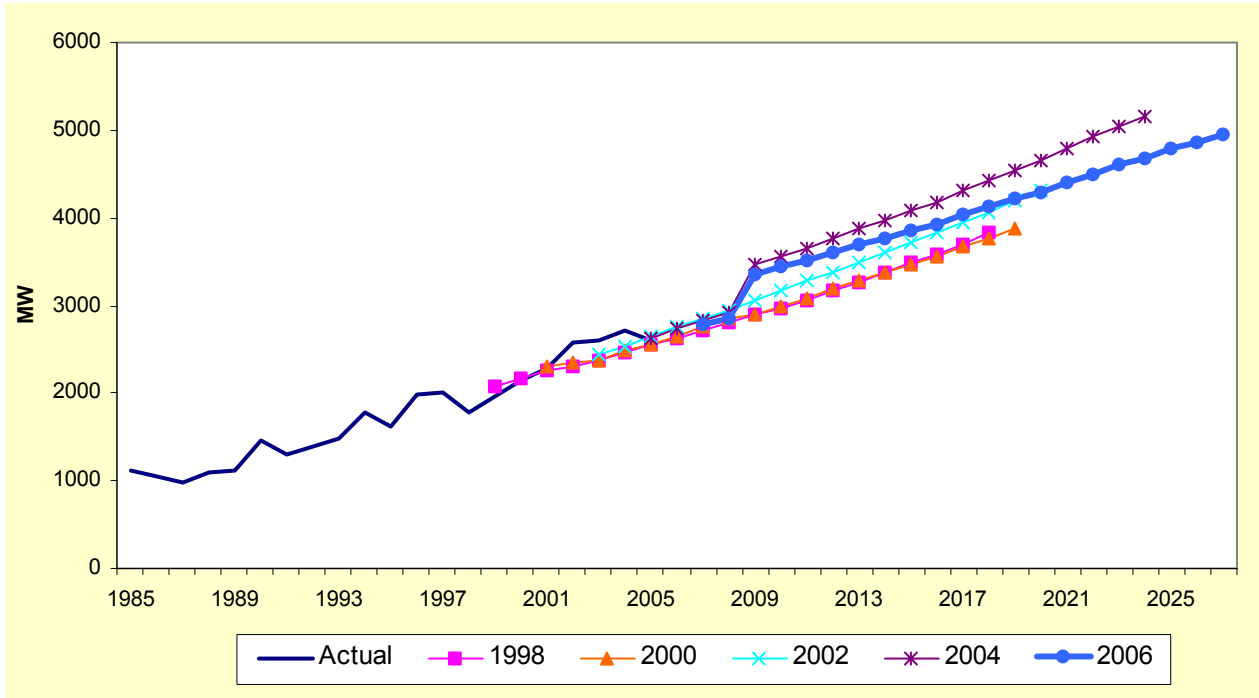
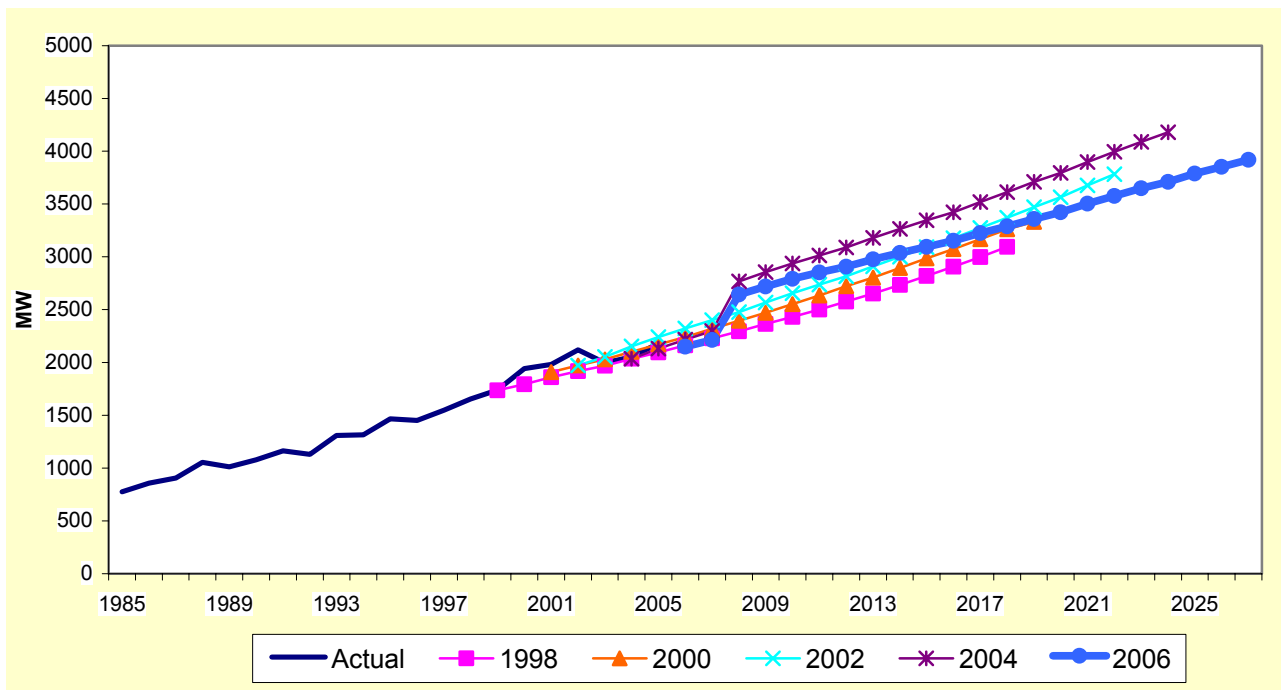


Figure 3-8
Historical Load Forecast Studies
Summer Peak Demand



SECTION 4.0

REGIONAL ECONOMIC MODEL

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Section 4.0 Regional Economic Model

Part of EKPC's load forecast methodology includes regional economic modeling. Historical data on population, income, employment levels, and wages are collected at the county level from the U.S. Bureau of Labor Statistics (“BLS”) and the U.S. Bureau of Economic Analysis (“BEA”) and historical data on labor force size and the unemployment rate are collected at the county level from state sources. The historical county data are combined into seven economic regions, and are analyzed and projected into the future. EKPC subscribes to the forecast services of Global Insight, an established consulting firm that supplies economic forecasts to thousands of U.S. firms. Regional economic activity is modeled using Global Insight’s forecast of the U.S. economy as a driver. Consistent regional forecasts for population, income, and employment are developed. Population forecasts are used to project residential class customers; regional household income is used to project residential sales; and regional economic activity is used to project small commercial sales. The regional model output for the seven regions as well as the SAS code are provided in Appendix B.

A positive aspect for EKPC's regional modeling is that key variables, shown below in Table 4-1, have a common basis from which forecasts are made. That is, the variable forecasts are consistent relative to one another. Population projections are linked to income growth, which is in turn linked to employment growth.

**Table 4-1
Key Load Forecast Variables
Percent Change**

	1990-2000	2000-2010	2010-2020
Population	10%	7%	7%
Total Employment	24%	7%	8%
Manufacturing Employment	13%	-14%	1%
Total Income	32%	14%	13%
Per Capita Income	20%	6%	6%

An important variable that is projected by the regional model is regional population. Historical population grew rapidly during the seventies and, as Figure 4-1 shows, slowed during the second half of the eighties. Presently, population growth has once again begun to increase at a relatively rapid rate. Overall, EKPC's forecast is for moderate growth in population.

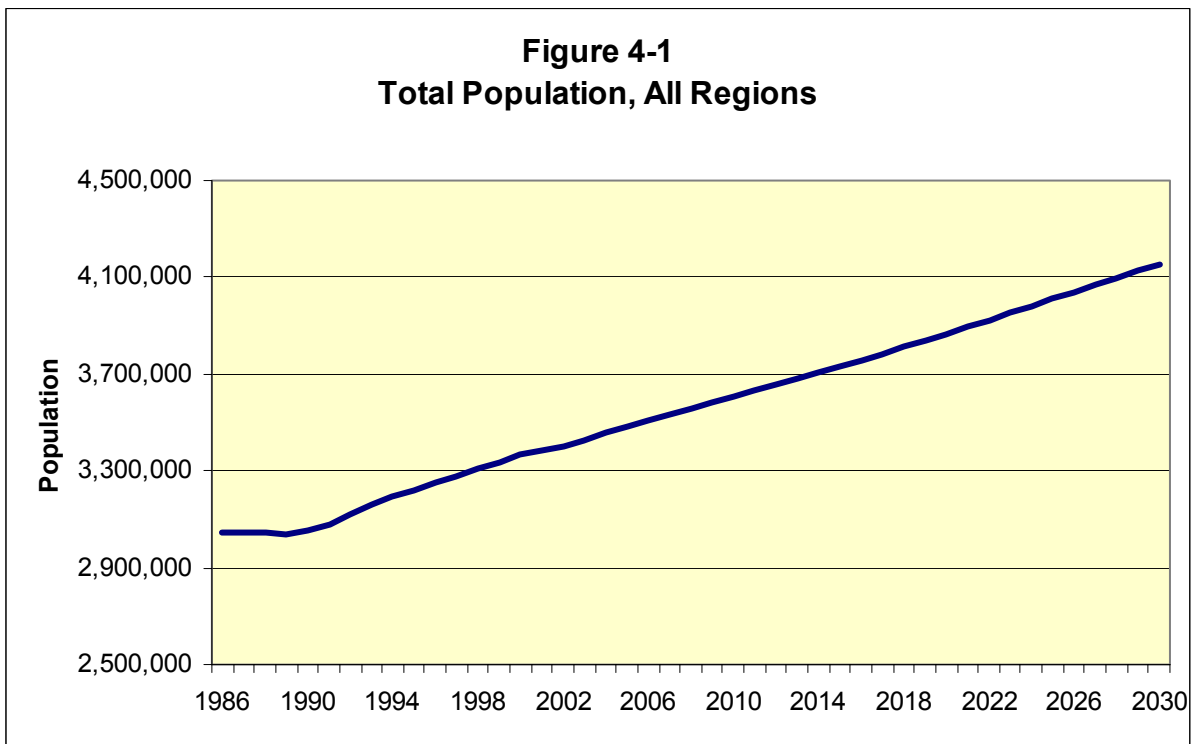


Figure 4-2 illustrates the cyclical nature of income growth, and the sensitivity to the national economy exhibited by EKPC's service area. Whenever employment levels decrease or wage levels fall, personal income will be adversely affected. EKPC's forecast of total regional income is for moderate but steady growth. This variable is important to the load forecast because of its strong effect on appliance purchases.

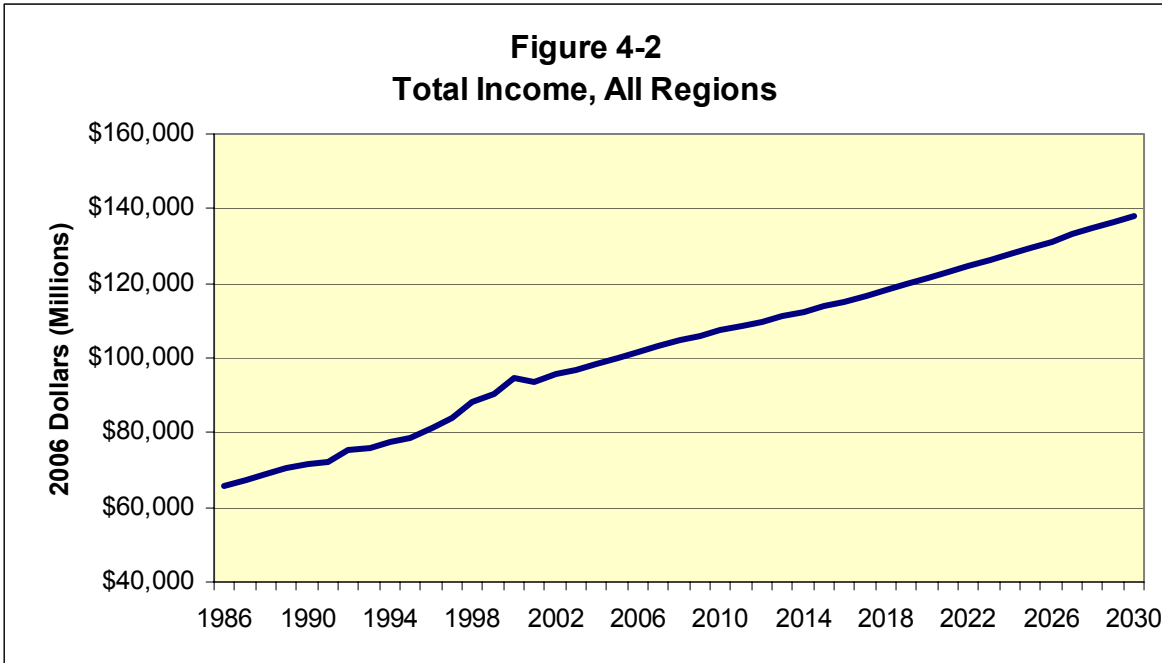
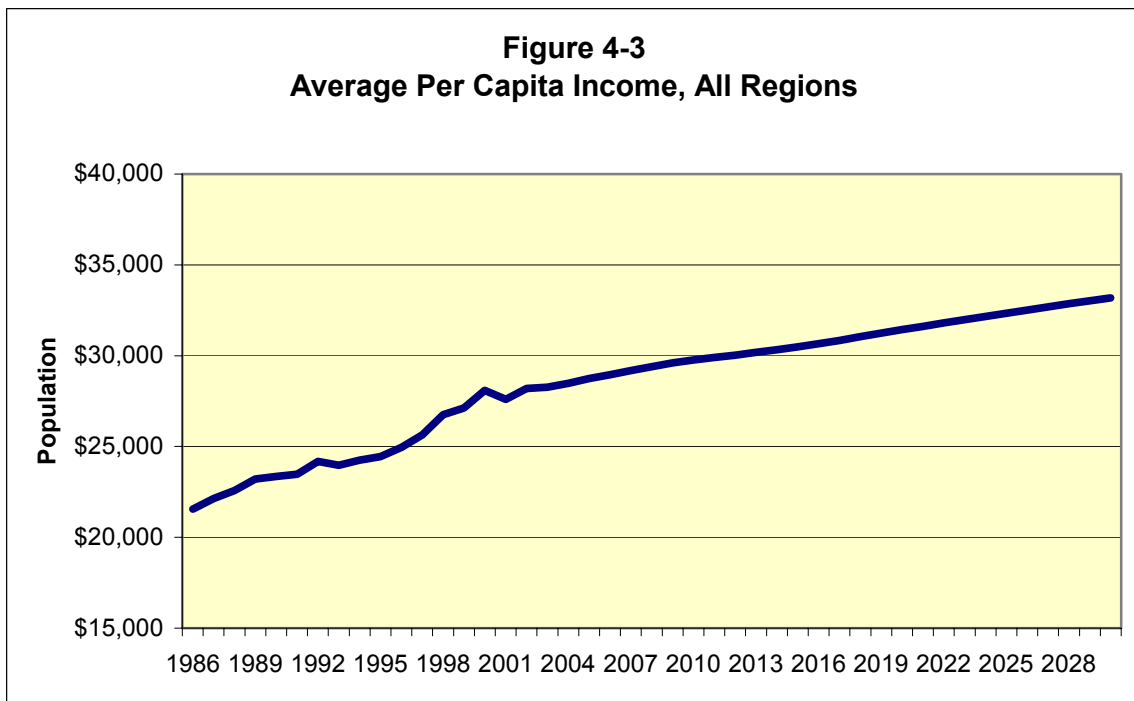


Figure 4-3 represents an interaction of the two previous charts. Per Capita Income (PCY) is defined as personal income divided by total population. In 2006, regional PCY was \$29,000. EKPC projects this to increase to \$32,500 in constant dollars by 2026.



Total regional employment is tied closely to the national economy. The early eighties was a period of depressed job growth. As Figure 4-4 shows, since 1986, however, total employment has grown strongly and EKPC's forecast of total employment levels is for moderate growth. One constraint on jobs creation is the labor force, which should grow more slowly than in the past due to two effects.

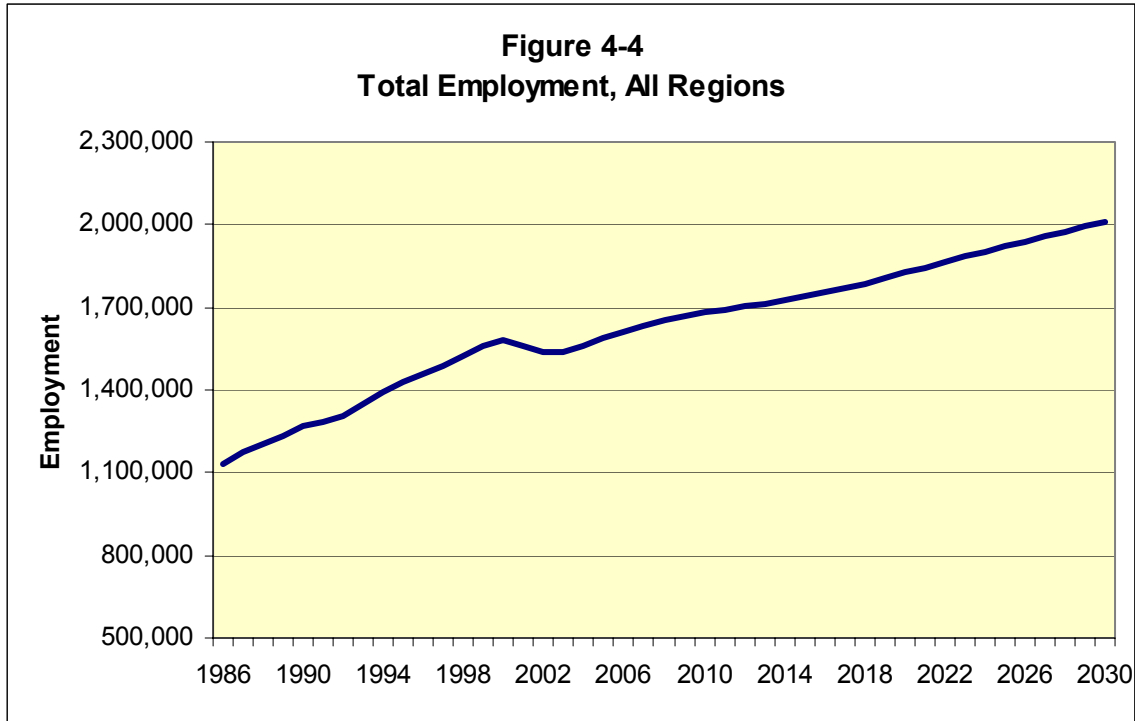
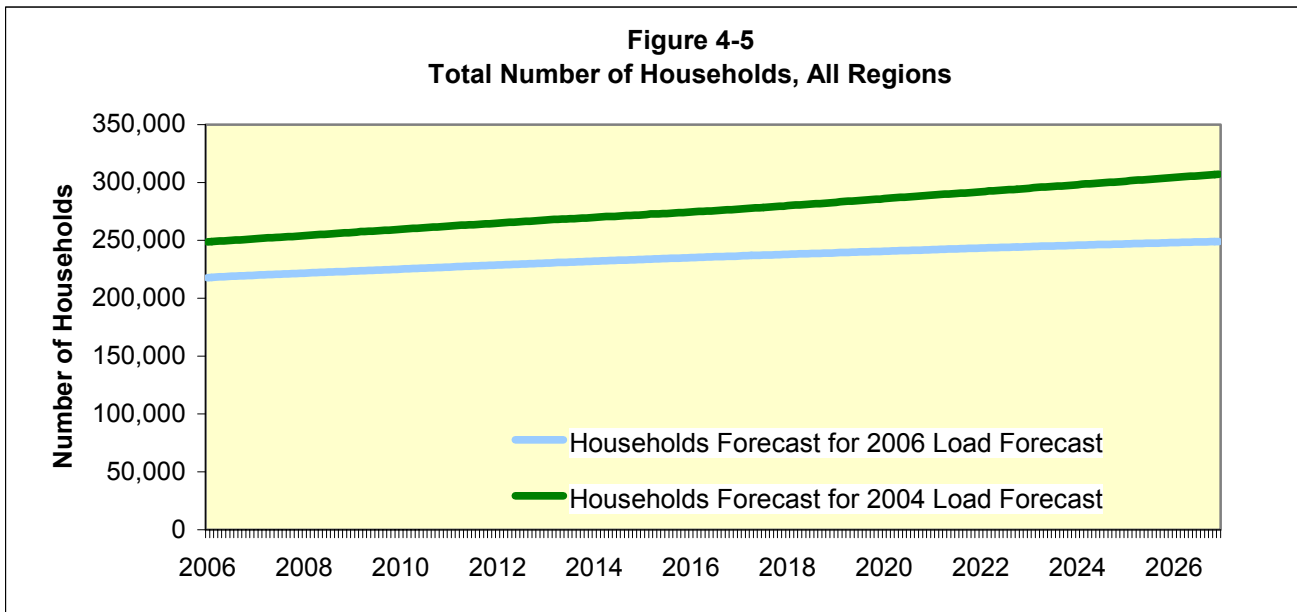


Figure 4-5 shows 2004 and 2006 forecasts of total households. As is shown, the current forecast shows household growth much more moderate than the 2004 forecast. This trend is being seen for surrounding states as well.



Projections of regional economic activity enhance the sales forecasting and strategic planning of EKPC because changes in regional employment and income are important determinants of customer and sales growth. EKPC's regional models use quarterly county-level data to produce regional forecasts of income, employment, wages, population, labor force, and the unemployment rate. The analysis is performed with ordinary least squares regression. Historical regional data are common series and are available from government sources. The quarterly data is then converted to monthly values to use in the load forecasting models.

Some natural regions exist within the EKPC territory. For example, the Central Economic Region defined by EKPC fits closely within the Lexington Standard Metropolitan Statistical Area ("SMSA"). The BEA defines SMSA's as areas of interrelated economic activity that go beyond a single county's boundaries. EKPC's Eastern Region is dominated by the coal mining industry. The Northern Region includes Kentucky counties that border Cincinnati. A list of regions and counties is provided in Table 4-2. Models for these regions provide EKPC with a way of linking the electricity needs of a service area to the rest of the service area's economy in a consistent and reasonable manner. Tables 4-3 through 4-9 report regional economic summaries.

Table 4-2

**Regional Economic Model
Counties by Region**

Central South	Central North	South	Central	North	North East	East
Allen	Bullitt	Adair	Anderson	Boone	Bath	Bell
Barren	Hardin	Boyle	Bourbon	Bracken	Boyd	Breathitt
Butler	Henry	Casey	Clark	Campbell	Carter	Clay
Cumberland	Jefferson	Garrard	Fayette	Carroll	Elliott	Estill
Edmonson	Larue	Green	Franklin	Gallatin	Fleming	Floyd
Grayson	Meade	Lincoln	Harrison	Grant	Greenup	Harlan
Hart	Nelson	Marion	Jessamine	Kenton	Lawrence	Jackson
Metcalfe	Oldham	McCreary	Madison	Owen	Lewis	Johnson
Monroe	Shelby	Pulaski	Mercer	Pendleton	Mason	Knott
Simpson	Spencer	Russell	Scott		Menifee	Knox
Warren	Trimble	Taylor	Woodford		Montgomery	Laurel
	Washington	Wayne			Nicholas	Lee
					Powell	Leslie
					Robertson	Letcher
					Rowan	Magoffin
						Martin
						Morgan
						Owsley
						Perry
						Pike
						Rockcastle
						Whitley
						Wolfe

Table 4-3

Southern Economic Region History and Forecast														
Regional Summary														
	Population		Labor Force		Total Employment		Unemployment Rate		Average Real Wages		Regional Income		Real Per Capita Income	
		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change
Actual														
1990	222,596	0.5%	102,517	-0.9%	73,322	2.0%	6.8%	-6.6%	\$23,344	-2.1%	\$4,116	1.7%	\$18,491	1.2%
1991	224,983	1.1%	102,617	0.1%	73,717	0.5%	9.2%	35.8%	\$23,654	1.3%	\$4,241	3.0%	\$18,850	1.9%
1992	228,383	1.5%	103,826	1.2%	76,627	3.9%	7.7%	-16.0%	\$23,699	0.2%	\$4,492	5.9%	\$19,669	4.3%
1993	231,215	1.2%	106,384	2.5%	78,297	2.2%	7.0%	-10.0%	\$23,246	-1.9%	\$4,478	-0.3%	\$19,368	-1.5%
1994	234,324	1.3%	106,212	-0.2%	80,085	2.3%	5.9%	-15.5%	\$22,986	-1.1%	\$4,576	2.2%	\$19,529	0.8%
1995	237,430	1.3%	107,381	1.1%	82,276	2.7%	6.0%	2.6%	\$23,206	1.0%	\$4,523	-1.2%	\$19,049	-2.5%
1996	240,075	1.1%	107,437	0.1%	82,336	0.1%	6.8%	12.4%	\$23,326	0.5%	\$4,667	3.2%	\$19,440	2.1%
1997	242,082	0.8%	109,562	2.0%	82,257	-0.1%	7.9%	16.2%	\$23,915	2.5%	\$4,940	5.9%	\$20,407	5.0%
1998	244,142	0.9%	111,775	2.0%	80,254	-2.4%	10.0%	26.3%	\$24,504	2.5%	\$5,165	4.5%	\$21,156	3.7%
1999	246,214	0.8%	109,510	-2.0%	80,966	0.9%	6.9%	-30.4%	\$25,186	2.8%	\$5,186	0.4%	\$21,061	-0.4%
2000	248,478	0.9%	110,838	1.2%	85,552	5.7%	4.6%	-33.6%	\$24,701	-1.9%	\$5,501	6.1%	\$22,137	5.1%
2001	249,784	0.5%	113,076	2.0%	84,420	-1.3%	6.6%	42.9%	\$24,395	-1.2%	\$5,525	0.4%	\$22,120	-0.1%
2002	252,132	0.9%	111,837	-1.1%	83,184	-1.5%	6.6%	0.8%	\$25,256	3.5%	\$5,635	2.0%	\$22,349	1.0%
2003	254,340	0.9%	118,912	6.3%	84,155	1.2%	7.0%	4.9%	\$25,296	0.2%	\$5,623	-0.2%	\$22,109	-1.1%
2004	256,709	0.9%	119,767	0.7%	85,502	1.6%	6.8%	-2.6%	\$25,292	0.0%	\$5,695	1.3%	\$22,185	0.3%
2005	259,127	0.9%	120,583	0.7%	86,603	1.3%	6.4%	-5.3%	\$25,394	0.4%	\$5,784	1.6%	\$22,321	0.6%
Forecast														
2006	261,555	0.9%	121,422	0.7%	87,807	1.4%	6.2%	-3.2%	\$25,292	-0.4%	\$5,880	1.7%	\$22,479	0.7%
2007	263,960	0.9%	122,241	0.7%	88,935	1.3%	6.2%	0.2%	\$25,394	0.4%	\$5,983	1.8%	\$22,665	0.8%
2008	266,325	0.9%	123,013	0.6%	89,888	1.1%	6.1%	-1.7%	\$25,490	0.4%	\$6,087	1.7%	\$22,856	0.8%
2009	268,666	0.9%	123,764	0.6%	90,768	1.0%	6.0%	-1.1%	\$25,578	0.3%	\$6,194	1.8%	\$23,054	0.9%
2010	270,951	0.9%	124,442	0.5%	91,364	0.7%	6.1%	1.2%	\$25,657	0.3%	\$6,298	1.7%	\$23,243	0.8%
Long-Term Forecast														
2015	282,217	0.8%	127,756	0.5%	94,163	0.6%	6.2%	0.4%	\$25,994	0.3%	\$6,805	1.6%	\$24,112	0.7%
2020	293,610	0.8%	131,444	0.6%	98,605	0.9%	6.0%	-0.9%	\$26,093	0.1%	\$7,353	1.6%	\$25,043	0.8%
2025	304,974	0.8%	135,163	0.6%	103,230	0.9%	6.0%	0.1%	\$26,148	0.0%	\$7,909	1.5%	\$25,935	0.7%
2030	316,248	0.7%	138,778	0.5%	107,464	0.8%	6.0%	0.0%	\$26,181	0.0%	\$8,450	1.3%	\$26,719	0.6%
Notes:	<i>Wages & Per Capita Income are in constant 2006 dollars; Income is in millions of constant 2005 dollars. Growth rates are average annual changes. Data for 2004 and 2005 are simulated.</i>													

Table 4-4

Eastern Economic Region History and Forecast														
Regional Summary														
	Population		Labor Force		Total Employment		Unemployment Rate		Average Real Wages		Regional Income		Real Per Capita Income	
		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change
Actual														
1990	540,824	-0.5%	190,058	2.5%	144,054	3.4%	9.0%	-3.5%	\$25,743	-1.6%	\$8,910	1.1%	\$16,475	1.7%
1991	544,407	0.7%	192,903	1.5%	144,936	0.6%	12.0%	33.8%	\$25,411	-1.3%	\$9,096	2.1%	\$16,707	1.4%
1992	547,802	0.6%	193,612	0.4%	145,141	0.1%	11.3%	-5.4%	\$25,828	1.6%	\$9,402	3.4%	\$17,163	2.7%
1993	551,087	0.6%	195,843	1.2%	148,381	2.2%	10.0%	-12.1%	\$25,735	-0.4%	\$9,416	0.2%	\$17,087	-0.4%
1994	553,065	0.4%	196,987	0.6%	150,867	1.7%	8.9%	-10.8%	\$25,741	0.0%	\$9,522	1.1%	\$17,217	0.8%
1995	555,088	0.4%	201,264	2.2%	155,081	2.8%	9.1%	2.0%	\$25,511	-0.9%	\$9,584	0.6%	\$17,265	0.3%
1996	554,460	-0.1%	199,145	-1.1%	154,776	-0.2%	9.5%	4.7%	\$25,641	0.5%	\$9,674	0.9%	\$17,447	1.1%
1997	554,363	0.0%	202,287	1.6%	157,169	1.5%	8.2%	-13.5%	\$26,087	1.7%	\$10,069	4.1%	\$18,163	4.1%
1998	554,044	-0.1%	201,723	-0.3%	159,377	1.4%	6.8%	-17.7%	\$26,377	1.1%	\$10,284	2.1%	\$18,562	2.2%
1999	553,832	0.0%	204,002	1.1%	159,825	0.3%	6.9%	2.2%	\$26,516	0.5%	\$10,479	1.9%	\$18,921	1.9%
2000	552,926	-0.2%	202,132	-0.9%	158,377	-0.9%	6.4%	-7.6%	\$26,390	-0.5%	\$10,737	2.5%	\$19,418	2.6%
2001	551,463	-0.3%	202,586	0.2%	159,095	0.5%	6.6%	3.9%	\$26,200	-0.7%	\$11,012	2.6%	\$19,968	2.8%
2002	554,005	0.5%	201,554	-0.5%	157,185	-1.2%	7.2%	8.3%	\$26,520	1.2%	\$11,137	1.1%	\$20,102	0.7%
2003	554,238	0.0%	203,166	0.8%	155,124	-1.3%	8.3%	15.7%	\$26,624	0.4%	\$11,109	-0.2%	\$20,044	-0.3%
2004	555,666	0.3%	205,488	1.1%	159,456	2.8%	8.7%	4.2%	\$26,654	0.1%	\$11,237	1.2%	\$20,223	0.9%
2005	557,768	0.4%	207,099	0.8%	162,464	1.9%	8.1%	-6.6%	\$26,767	0.4%	\$11,330	0.8%	\$20,312	0.4%
Forecast														
2006	559,879	0.4%	208,737	0.8%	165,519	1.9%	7.7%	-4.1%	\$26,654	-0.4%	\$11,434	0.9%	\$20,422	0.5%
2007	560,254	0.1%	209,187	0.2%	166,360	0.5%	7.8%	0.3%	\$26,767	0.4%	\$11,562	1.1%	\$20,638	1.1%
2008	559,983	0.0%	209,116	0.0%	166,228	-0.1%	7.6%	-2.2%	\$26,831	0.2%	\$11,694	1.1%	\$20,882	1.2%
2009	559,782	0.0%	208,980	-0.1%	165,972	-0.2%	7.5%	-1.4%	\$26,870	0.1%	\$11,829	1.2%	\$21,132	1.2%
2010	559,699	0.0%	208,770	-0.1%	165,581	-0.2%	7.6%	1.6%	\$26,899	0.1%	\$11,969	1.2%	\$21,385	1.2%
Long-Term Forecast														
2015	560,660	0.0%	208,498	0.0%	165,074	-0.1%	7.8%	0.5%	\$26,970	0.1%	\$12,716	1.2%	\$22,680	1.2%
2020	562,110	0.1%	210,100	0.2%	168,064	0.4%	7.4%	-1.1%	\$26,993	0.0%	\$13,601	1.4%	\$24,196	1.3%
2025	564,514	0.1%	212,857	0.3%	173,208	0.6%	7.4%	0.1%	\$26,999	0.0%	\$14,557	1.4%	\$25,786	1.3%
2030	567,274	0.1%	215,400	0.2%	177,954	0.5%	7.4%	0.0%	\$27,001	0.0%	\$15,500	1.3%	\$27,324	1.2%
Notes:	<i>Wages & Per Capita Income are in constant 2006 dollars; Income is in millions of constant 2005 dollars.</i>													
	<i>Growth rates are average annual changes. Data for 2004 and 2005 are simulated.</i>													

Table 4-5

North Eastern Economic Region History and Forecast														
Regional Summary														
	Population		Labor Force		Total Employment		Unemployment Rate		Average Real Wages		Regional Income		Real Per Capita Income	
		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change
Actual														
1990	249,842	-0.2%	111,918	5.7%	75,323	4.1%	8.6%	6.5%	\$27,581	-2.6%	\$4,744	0.8%	\$18,987	1.1%
1991	251,534	0.7%	112,873	0.9%	75,144	-0.2%	11.4%	32.7%	\$26,829	-2.7%	\$4,816	1.5%	\$19,147	0.8%
1992	253,735	0.9%	112,902	0.0%	77,721	3.4%	10.4%	-8.4%	\$27,420	2.2%	\$4,993	3.7%	\$19,678	2.8%
1993	255,654	0.8%	114,691	1.6%	77,336	-0.5%	11.0%	5.3%	\$27,052	-1.3%	\$4,920	-1.5%	\$19,246	-2.2%
1994	257,025	0.5%	114,732	0.0%	78,883	2.0%	9.3%	-15.1%	\$27,187	0.5%	\$5,003	1.7%	\$19,466	1.1%
1995	258,584	0.6%	116,654	1.7%	80,808	2.4%	8.7%	-6.7%	\$26,965	-0.8%	\$4,980	-0.5%	\$19,259	-1.1%
1996	260,129	0.6%	116,499	-0.1%	82,449	2.0%	7.9%	-9.5%	\$27,095	0.5%	\$5,110	2.6%	\$19,645	2.0%
1997	261,885	0.7%	120,218	3.2%	83,924	1.8%	8.0%	1.9%	\$27,328	0.9%	\$5,301	3.7%	\$20,243	3.0%
1998	263,674	0.7%	121,876	1.4%	85,737	2.2%	6.7%	-15.9%	\$27,219	-0.4%	\$5,496	3.7%	\$20,842	3.0%
1999	265,250	0.6%	123,811	1.6%	86,435	0.8%	7.1%	5.2%	\$27,387	0.6%	\$5,536	0.7%	\$20,872	0.1%
2000	266,781	0.6%	122,111	-1.4%	87,664	1.4%	6.2%	-12.4%	\$27,278	-0.4%	\$5,829	5.3%	\$21,849	4.7%
2001	268,031	0.5%	122,316	0.2%	86,834	-0.9%	7.7%	23.4%	\$27,429	0.6%	\$5,704	-2.1%	\$21,281	-2.6%
2002	268,990	0.4%	120,773	-1.3%	86,943	0.1%	6.6%	-14.4%	\$28,039	2.2%	\$5,881	3.1%	\$21,862	2.7%
2003	270,356	0.5%	125,429	3.9%	89,410	2.8%	7.1%	8.8%	\$28,262	0.8%	\$5,990	1.9%	\$22,157	1.3%
2004	270,715	0.1%	125,728	0.2%	89,757	0.4%	6.3%	-11.0%	\$28,609	1.2%	\$6,036	0.8%	\$22,297	0.6%
2005	271,701	0.4%	126,543	0.6%	90,703	1.1%	5.8%	-9.3%	\$28,808	0.7%	\$6,078	0.7%	\$22,370	0.3%
Forecast														
2006	272,759	0.4%	127,452	0.7%	91,759	1.2%	5.4%	-6.0%	\$28,609	-0.7%	\$6,127	0.8%	\$22,464	0.4%
2007	273,790	0.4%	128,380	0.7%	92,836	1.2%	5.4%	0.5%	\$28,808	0.7%	\$6,188	1.0%	\$22,600	0.6%
2008	274,734	0.3%	129,191	0.6%	93,778	1.0%	5.3%	-3.2%	\$28,942	0.5%	\$6,246	0.9%	\$22,736	0.6%
2009	275,564	0.3%	129,926	0.6%	94,631	0.9%	5.1%	-2.1%	\$29,029	0.3%	\$6,309	1.0%	\$22,895	0.7%
2010	276,368	0.3%	130,488	0.4%	95,284	0.7%	5.3%	2.4%	\$29,097	0.2%	\$6,371	1.0%	\$23,053	0.7%
Long-Term Forecast														
2015	280,228	0.3%	133,083	0.4%	98,297	0.6%	5.5%	0.7%	\$29,226	0.1%	\$6,688	1.0%	\$23,868	0.7%
2020	284,335	0.3%	137,055	0.6%	102,908	0.9%	5.0%	-1.7%	\$29,314	0.1%	\$7,076	1.1%	\$24,887	0.8%
2025	288,583	0.3%	141,478	0.6%	108,043	1.0%	5.1%	0.2%	\$29,346	0.0%	\$7,495	1.2%	\$25,971	0.9%
2030	292,834	0.3%	145,469	0.6%	112,678	0.8%	5.1%	0.0%	\$29,352	0.0%	\$7,899	1.1%	\$26,976	0.8%

Notes: *Wages & Per Capita Income are in constant 2006 dollars; Income is in millions of constant 2005 dollars. Growth rates are average annual changes. Data for 2004 and 2005 are simulated.*

Table 4-6

Central South Economic Region History and Forecast														
Regional Summary														
	Population		Labor Force		Total Employment		Unemployment Rate		Average Real Wages		Regional Income		Real Per Capita Income	
		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change
Actual														
1990	226,711	0.7%	113,838	-2.7%	109,695	2.7%	7.5%	7.2%	\$22,884	-1.9%	\$4,414	-1.7%	\$19,468	-2.4%
1991	229,321	1.2%	113,853	0.0%	111,285	1.4%	8.2%	10.1%	\$22,136	-3.3%	\$4,575	3.7%	\$19,950	2.5%
1992	232,201	1.3%	115,243	1.2%	117,077	5.2%	6.9%	-15.9%	\$22,710	2.6%	\$4,868	6.4%	\$20,964	5.1%
1993	236,827	2.0%	117,778	2.2%	122,731	4.8%	5.8%	-15.9%	\$22,672	-0.2%	\$4,948	1.6%	\$20,892	-0.3%
1994	240,359	1.5%	120,351	2.2%	130,239	6.1%	4.5%	-22.0%	\$22,673	0.0%	\$5,203	5.1%	\$21,645	3.6%
1995	244,602	1.8%	123,689	2.8%	133,972	2.9%	5.3%	16.0%	\$23,517	3.7%	\$5,239	0.7%	\$21,417	-1.0%
1996	247,987	1.4%	125,497	1.5%	134,605	0.5%	6.9%	31.0%	\$24,004	2.1%	\$5,398	3.0%	\$21,767	1.6%
1997	251,565	1.4%	127,414	1.5%	137,919	2.5%	6.1%	-10.9%	\$24,460	1.9%	\$5,666	5.0%	\$22,521	3.5%
1998	255,137	1.4%	127,889	0.4%	142,364	3.2%	4.7%	-22.9%	\$24,888	1.7%	\$5,869	3.6%	\$23,003	2.1%
1999	257,675	1.0%	130,992	2.4%	147,107	3.3%	4.9%	3.2%	\$25,186	1.2%	\$5,958	1.5%	\$23,122	0.5%
2000	260,445	1.1%	130,526	-0.4%	148,598	1.0%	4.4%	-9.2%	\$24,991	-0.8%	\$6,273	5.3%	\$24,084	4.2%
2001	261,936	0.6%	129,820	-0.5%	145,355	-2.2%	5.9%	33.3%	\$24,764	-0.9%	\$6,082	-3.0%	\$23,218	-3.6%
2002	263,616	0.6%	128,970	-0.7%	145,923	0.4%	5.6%	-4.7%	\$25,374	2.5%	\$6,140	1.0%	\$23,291	0.3%
2003	266,440	1.1%	133,235	3.3%	148,030	1.4%	6.3%	11.6%	\$25,721	1.4%	\$6,228	1.4%	\$23,375	0.4%
2004	269,406	1.1%	134,674	1.1%	150,716	1.8%	6.4%	2.1%	\$25,703	-0.1%	\$6,316	1.4%	\$23,443	0.3%
2005	271,802	0.9%	135,984	1.0%	153,416	1.8%	7.0%	8.5%	\$25,839	0.5%	\$6,423	1.7%	\$23,633	0.8%
Forecast														
2006	274,313	0.9%	137,426	1.1%	156,496	2.0%	6.9%	-0.1%	\$25,703	-0.5%	\$6,527	1.6%	\$23,796	0.7%
2007	277,044	1.0%	138,795	1.0%	159,128	1.7%	7.0%	0.2%	\$25,839	0.5%	\$6,621	1.4%	\$23,898	0.4%
2008	279,735	1.0%	140,101	0.9%	161,569	1.5%	6.9%	-0.6%	\$25,954	0.4%	\$6,714	1.4%	\$24,001	0.4%
2009	282,385	0.9%	141,263	0.8%	163,525	1.2%	6.9%	-0.8%	\$26,051	0.4%	\$6,799	1.3%	\$24,078	0.3%
2010	284,991	0.9%	142,258	0.7%	164,915	0.9%	6.9%	0.0%	\$26,138	0.3%	\$6,879	1.2%	\$24,139	0.3%
Long-Term Forecast														
2015	297,793	0.9%	146,797	0.6%	170,490	0.7%	6.9%	0.0%	\$26,565	0.3%	\$7,229	1.0%	\$24,277	0.1%
2020	310,435	0.8%	152,523	0.8%	180,473	1.1%	6.8%	0.0%	\$26,790	0.2%	\$7,630	1.1%	\$24,579	0.2%
2025	323,316	0.8%	158,403	0.8%	190,813	1.1%	6.8%	0.0%	\$26,994	0.2%	\$8,020	1.0%	\$24,807	0.2%
2030	336,643	0.8%	163,860	0.7%	199,254	0.9%	6.8%	0.0%	\$27,189	0.1%	\$8,403	0.9%	\$24,962	0.1%

Notes: *Wages & Per Capita Income are in constant 2006 dollars; Income is in millions of constant 2005 dollars. Growth rates are average annual changes. Data for 2004 and 2005 are simulated.*

Table 4-7

Central North Economic Region History and Forecast														
Regional Summary														
	Population		Labor Force		Total Employment		Unemployment Rate		Average Real Wages		Regional Income		Real Per Capita Income	
		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change
Actual														
1990	964,002	0.4%	494,930	-2.0%	468,383	3.1%	5.0%	-11.5%	\$29,174	-0.6%	\$26,677	0.5%	\$27,673	0.0%
1991	967,773	0.4%	487,991	-1.4%	467,253	-0.2%	6.1%	20.4%	\$29,239	0.2%	\$26,826	0.6%	\$27,719	0.2%
1992	975,464	0.8%	492,143	0.9%	474,695	1.6%	5.5%	-9.1%	\$30,554	4.5%	\$27,908	4.0%	\$28,610	3.2%
1993	990,659	1.6%	500,123	1.6%	494,158	4.1%	4.9%	-11.4%	\$30,764	0.7%	\$28,023	0.4%	\$28,287	-1.1%
1994	1,000,603	1.0%	507,991	1.6%	506,843	2.6%	4.3%	-12.8%	\$30,164	-2.0%	\$28,625	2.1%	\$28,608	1.1%
1995	1,009,902	0.9%	518,420	2.1%	517,747	2.2%	4.5%	4.7%	\$30,981	2.7%	\$29,253	2.2%	\$28,966	1.3%
1996	1,015,901	0.6%	518,000	-0.1%	526,646	1.7%	4.6%	2.8%	\$31,439	1.5%	\$29,995	2.5%	\$29,526	1.9%
1997	1,024,142	0.8%	533,730	3.0%	534,561	1.5%	4.5%	-2.7%	\$32,041	1.9%	\$30,730	2.4%	\$30,006	1.6%
1998	1,032,925	0.9%	539,000	1.0%	547,361	2.4%	3.6%	-19.1%	\$33,452	4.4%	\$32,828	6.8%	\$31,781	5.9%
1999	1,043,819	1.1%	552,734	2.5%	559,653	2.2%	3.8%	5.6%	\$34,438	2.9%	\$33,450	1.9%	\$32,045	0.8%
2000	1,054,288	1.0%	562,907	1.8%	565,970	1.1%	3.6%	-5.9%	\$34,533	0.3%	\$34,917	4.4%	\$33,119	3.4%
2001	1,060,834	0.6%	554,875	-1.4%	556,479	-1.7%	4.7%	31.5%	\$34,714	0.5%	\$34,604	-0.9%	\$32,620	-1.5%
2002	1,067,926	0.7%	545,484	-1.7%	543,802	-2.3%	5.5%	16.5%	\$35,106	1.1%	\$35,945	3.9%	\$33,659	3.2%
2003	1,076,288	0.8%	537,325	-1.5%	540,482	-0.6%	5.9%	8.2%	\$35,596	1.4%	\$36,356	1.1%	\$33,779	0.4%
2004	1,084,605	0.8%	542,116	0.9%	547,046	1.2%	5.1%	-14.6%	\$35,996	1.1%	\$36,867	1.4%	\$33,991	0.6%
2005	1,091,625	0.6%	548,273	1.1%	556,333	1.7%	5.1%	0.3%	\$36,426	1.2%	\$37,469	1.6%	\$34,324	1.0%
Forecast														
2006	1,098,806	0.7%	554,161	1.1%	565,105	1.6%	5.1%	0.2%	\$35,996	-1.2%	\$38,047	1.5%	\$34,626	0.9%
2007	1,106,385	0.7%	559,643	1.0%	573,065	1.4%	5.1%	0.5%	\$36,426	1.2%	\$38,629	1.5%	\$34,914	0.8%
2008	1,113,740	0.7%	565,297	1.0%	581,383	1.5%	5.1%	-0.6%	\$36,769	0.9%	\$39,159	1.4%	\$35,160	0.7%
2009	1,121,504	0.7%	570,169	0.9%	588,219	1.2%	5.0%	-1.0%	\$37,042	0.7%	\$39,666	1.3%	\$35,368	0.6%
2010	1,129,719	0.7%	574,165	0.7%	593,399	0.9%	5.0%	0.1%	\$37,281	0.6%	\$40,102	1.1%	\$35,498	0.4%
Long-Term Forecast														
2015	1,171,623	0.7%	592,266	0.6%	615,771	0.7%	5.0%	-0.1%	\$38,370	0.6%	\$42,070	1.0%	\$35,907	0.2%
2020	1,216,391	0.8%	617,126	0.8%	649,461	1.1%	5.0%	-0.2%	\$38,995	0.3%	\$44,473	1.1%	\$36,562	0.4%
2025	1,267,709	0.8%	644,495	0.9%	686,080	1.1%	5.0%	0.2%	\$39,474	0.2%	\$46,981	1.1%	\$37,060	0.3%
2030	1,320,322	0.8%	670,189	0.8%	719,430	1.0%	5.0%	-0.1%	\$39,946	0.2%	\$49,359	1.0%	\$37,384	0.2%

Notes: *Wages & Per Capita Income are in constant 2006 dollars; Income is in millions of constant 2005 dollars. Growth rates are average annual changes. Data for 2004 and 2005 are simulated.*

Table 4-8

Central Economic Region History and Forecast														
Regional Summary														
	Population		Labor Force		Total Employment		Unemployment Rate		Average Real Wages		Regional Income		Real Per Capita Income	
		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change
Actual														
1990	507,555	1.4%	276,282	0.2%	285,958	1.9%	4.1%	-4.7%	\$30,299	0.5%	\$14,118	3.2%	\$27,816	1.7%
1991	514,409	1.4%	271,734	-1.6%	288,307	0.8%	4.6%	12.9%	\$30,112	-0.6%	\$14,274	1.1%	\$27,748	-0.2%
1992	523,886	1.8%	273,863	0.8%	291,920	1.3%	4.3%	-6.5%	\$30,653	1.8%	\$14,805	3.7%	\$28,259	1.8%
1993	532,304	1.6%	281,873	2.9%	297,060	1.8%	3.9%	-8.7%	\$30,237	-1.4%	\$14,912	0.7%	\$28,013	-0.9%
1994	539,527	1.4%	285,020	1.1%	303,416	2.1%	3.7%	-5.1%	\$30,206	-0.1%	\$15,114	1.4%	\$28,014	0.0%
1995	545,745	1.2%	289,461	1.6%	305,346	0.6%	3.0%	-18.8%	\$30,985	2.6%	\$15,627	3.4%	\$28,635	2.2%
1996	553,226	1.4%	291,237	0.6%	311,986	2.2%	3.1%	3.3%	\$31,386	1.3%	\$16,189	3.6%	\$29,262	2.2%
1997	559,143	1.1%	301,434	3.5%	321,251	3.0%	3.2%	0.8%	\$31,966	1.8%	\$16,729	3.3%	\$29,918	2.2%
1998	567,001	1.4%	305,322	1.3%	330,205	2.8%	2.6%	-19.0%	\$32,715	2.3%	\$17,691	5.8%	\$31,201	4.3%
1999	574,583	1.3%	312,447	2.3%	338,261	2.4%	2.4%	-6.9%	\$33,190	1.5%	\$18,358	3.8%	\$31,950	2.4%
2000	580,792	1.1%	314,251	0.6%	341,397	0.9%	2.4%	-1.1%	\$33,047	-0.4%	\$19,063	3.8%	\$32,822	2.7%
2001	584,413	0.6%	304,969	-3.0%	333,533	-2.3%	3.6%	51.1%	\$33,327	0.8%	\$18,607	-2.4%	\$31,839	-3.0%
2002	587,178	0.5%	299,604	-1.8%	328,994	-1.4%	4.0%	12.7%	\$34,137	2.4%	\$19,010	2.2%	\$32,375	1.7%
2003	592,935	1.0%	313,629	4.7%	326,826	-0.7%	5.0%	25.6%	\$34,495	1.0%	\$19,196	1.0%	\$32,375	0.0%
2004	600,477	1.3%	316,303	0.9%	330,196	1.0%	4.4%	-12.3%	\$34,705	0.6%	\$19,669	2.5%	\$32,756	1.2%
2005	604,932	0.7%	318,618	0.7%	333,113	0.9%	5.0%	14.1%	\$34,983	0.8%	\$20,065	2.0%	\$33,169	1.3%
Forecast														
2006	609,779	0.8%	321,221	0.8%	336,393	1.0%	5.1%	0.5%	\$34,705	-0.8%	\$20,357	1.5%	\$33,384	0.6%
2007	614,793	0.8%	323,918	0.8%	339,792	1.0%	5.1%	0.6%	\$34,983	0.8%	\$20,635	1.4%	\$33,564	0.5%
2008	619,754	0.8%	326,260	0.7%	342,743	0.9%	5.1%	-0.3%	\$35,238	0.7%	\$20,919	1.4%	\$33,754	0.6%
2009	625,005	0.8%	328,502	0.7%	345,568	0.8%	5.0%	-0.4%	\$35,474	0.7%	\$21,191	1.3%	\$33,905	0.4%
2010	630,538	0.9%	330,469	0.6%	348,047	0.7%	5.1%	0.1%	\$35,698	0.6%	\$21,460	1.3%	\$34,035	0.4%
Long-Term Forecast														
2015	658,196	0.9%	339,543	0.5%	359,481	0.6%	5.1%	0.0%	\$37,067	0.8%	\$22,835	1.2%	\$34,694	0.4%
2020	687,092	0.9%	351,837	0.7%	374,974	0.8%	5.0%	-0.1%	\$37,958	0.5%	\$24,453	1.4%	\$35,589	0.5%
2025	720,299	0.9%	365,821	0.8%	392,596	0.9%	5.0%	0.0%	\$38,811	0.4%	\$26,182	1.4%	\$36,349	0.4%
2030	754,558	0.9%	379,361	0.7%	409,658	0.9%	5.0%	0.0%	\$39,647	0.4%	\$28,061	1.4%	\$37,188	0.5%

Notes: Wages & Per Capita Income are in constant 2006 dollars; Income is in millions of constant 2005 dollars. Growth rates are average annual changes. Data for 2004 and 2005 are simulated.

Table 4-9

Northern Economic Region History and Forecast														
Regional Summary														
	Population		Labor Force		Total Employment		Unemployment Rate		Average Real Wages		Regional Income		Real Per Capita Income	
		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change		(%) Change
Actual														
1990	344,103	1.5%	180,392	5.5%	115,497	5.0%	3.5%	-22.5%	\$26,440	0.4%	\$8,399	1.4%	\$24,408	-0.1%
1991	349,452	1.6%	178,882	-0.8%	121,671	5.3%	5.5%	58.0%	\$26,220	-0.8%	\$8,529	1.5%	\$24,406	0.0%
1992	354,500	1.4%	180,957	1.2%	125,506	3.2%	6.2%	13.3%	\$27,263	4.0%	\$8,862	3.9%	\$24,999	2.4%
1993	360,691	1.7%	183,490	1.4%	129,937	3.5%	5.3%	-13.8%	\$27,707	1.6%	\$9,000	1.6%	\$24,953	-0.2%
1994	365,753	1.4%	186,113	1.4%	140,633	8.2%	4.7%	-12.2%	\$28,509	2.9%	\$9,333	3.7%	\$25,517	2.3%
1995	371,503	1.6%	190,613	2.4%	154,575	9.9%	4.4%	-5.3%	\$30,216	6.0%	\$9,583	2.7%	\$25,794	1.1%
1996	376,514	1.3%	191,975	0.7%	161,794	4.7%	4.4%	0.0%	\$30,854	2.1%	\$10,037	4.7%	\$26,658	3.4%
1997	383,404	1.8%	199,678	4.0%	169,420	4.7%	4.1%	-8.5%	\$31,703	2.8%	\$10,556	5.2%	\$27,531	3.3%
1998	389,397	1.6%	202,205	1.3%	177,753	4.9%	3.4%	-16.0%	\$32,074	1.2%	\$11,097	5.1%	\$28,497	3.5%
1999	395,346	1.5%	206,458	2.1%	188,376	6.0%	3.2%	-5.9%	\$33,044	3.0%	\$11,539	4.0%	\$29,188	2.4%
2000	401,277	1.5%	211,827	2.6%	192,238	2.1%	3.3%	1.6%	\$33,770	2.2%	\$12,234	6.0%	\$30,488	4.5%
2001	405,841	1.1%	212,557	0.3%	190,683	-0.8%	4.9%	49.2%	\$35,313	4.6%	\$11,802	-3.5%	\$29,079	-4.6%
2002	409,667	0.9%	207,582	-2.3%	191,687	0.5%	4.5%	-7.2%	\$35,534	0.6%	\$12,219	3.5%	\$29,827	2.6%
2003	414,374	1.1%	220,466	6.2%	194,727	1.6%	5.1%	13.9%	\$36,046	1.4%	\$12,435	1.8%	\$30,008	0.6%
2004	419,764	1.3%	215,867	-2.1%	196,696	1.0%	5.0%	-2.1%	\$36,137	0.3%	\$12,617	1.5%	\$30,057	0.2%
2005	425,151	1.3%	218,409	1.2%	202,718	3.1%	5.4%	7.3%	\$36,615	1.3%	\$12,930	2.5%	\$30,414	1.2%
Forecast														
2006	430,665	1.3%	220,444	0.9%	207,540	2.4%	5.3%	-0.8%	\$36,137	-1.3%	\$13,220	2.2%	\$30,697	0.9%
2007	436,265	1.3%	222,258	0.8%	211,838	2.1%	5.4%	0.8%	\$36,615	1.3%	\$13,478	2.0%	\$30,894	0.6%
2008	441,922	1.3%	224,216	0.9%	216,475	2.2%	5.3%	-1.3%	\$36,980	1.0%	\$13,741	2.0%	\$31,095	0.6%
2009	447,618	1.3%	225,891	0.7%	220,443	1.8%	5.2%	-1.9%	\$37,280	0.8%	\$13,987	1.8%	\$31,247	0.5%
2010	453,340	1.3%	227,348	0.6%	223,895	1.6%	5.2%	-0.1%	\$37,555	0.7%	\$14,249	1.9%	\$31,431	0.6%
Long-Term Forecast														
2015	482,121	1.2%	232,293	0.4%	235,610	1.0%	5.0%	-0.9%	\$39,227	0.9%	\$15,456	1.6%	\$32,058	0.4%
2020	510,983	1.2%	238,790	0.6%	251,000	1.3%	4.8%	-0.6%	\$40,372	0.6%	\$16,892	1.8%	\$33,057	0.6%
2025	539,857	1.1%	245,575	0.6%	267,074	1.2%	4.8%	0.0%	\$41,437	0.5%	\$18,502	1.8%	\$34,271	0.7%
2030	568,732	1.0%	251,684	0.5%	281,545	1.1%	4.8%	-0.3%	\$42,455	0.5%	\$20,231	1.8%	\$35,571	0.7%

Notes: *Wages & Per Capita Income are in constant 2006 dollars; Income is in millions of constant 2005 dollars. Growth rates are average annual changes. Data for 2004 and 2005 are simulated.*

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SECTION 5.0

**RESIDENTIAL CUSTOMER
FORECAST**

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Section 5.0 Residential Customer Forecast

5.1 Introduction

Nearly 60 percent of EKPC's member system retail sales are to the residential class, therefore, the forecast of residential customers has a large impact on the overall load forecast. It is developed as follows:

1. Forecasts of regional households are prepared by modeling population growth and changes in household size.
2. Within each geographic region, there are many utilities that serve those customers. The portion of those customers that the member system serves is modeled in a 'share' variable. Historical values of share are calculated from data provided by the member systems. Forecasts of share are made based on historical trends and knowledge about service area development.
3. The population and household variables are combined with the share variable to represent the growth for a specific member system instead of the entire economic region.

$$\text{Population Share} = (\text{Regional Population} * \text{Share})$$

$$\text{Regional Households} = \frac{\text{Regional Population}}{\text{People Per Household}}$$

$$\text{Household Share} = (\text{Regional Households} * \text{Share})$$

These variables are used in a regression equation to produce a forecast of residential customers for each member system. Other economic variables from EKPC's Regional Economic Model, such as total employment, or household income, may be used in the equations where appropriate.

4. The variables in the previous equations and their sources are listed below:

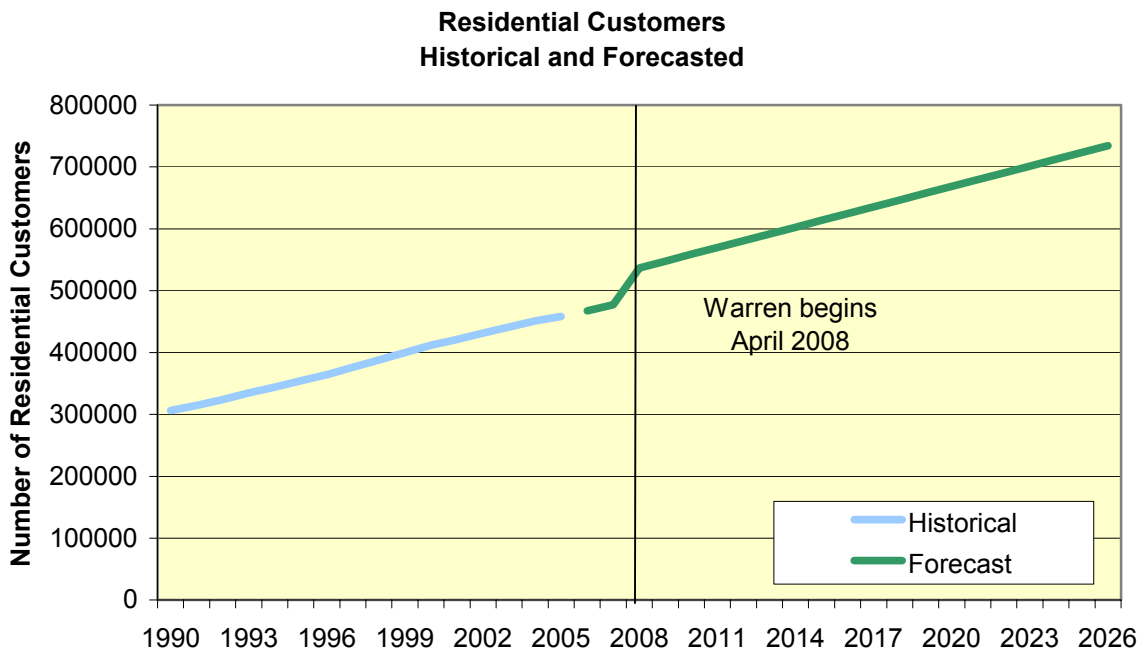
Variable	Historical Source	Forecast Source
<i>Population</i>	Bureau of Economic Analysis	EKPC Regional Model
<i>Household Size</i>	Census Bureau	Trend Growth
<i>Share</i> -The percent of regional households served by Member Systems	RUS Form 7	Trend Growth

5. The EKPC system residential customer forecast is the summation of the 16 member system forecasts, 17 beginning in 2008 with the addition of Warren RECC as a member.

5.2 Residential Customer Forecast Results

The average number of residential customers served by EKPC is expected to increase from a total of 458,000 in 2005 to 719,000 in 2026. While population growth is projected to increase at lower levels than historical trends, member systems are expected to receive an increasing share of regional growth and development. Overall customer changes are projected to grow at slower rates in the future. A summary of the system residential customer projections is shown in Figure 5-1 and Table 5-1. Individual member system customer forecasts are reported in Appendix A. Model specifics are provided in Appendix B.

Figure 5-1



**Table 5-1
Residential Class
Customer History and Forecast**

Year	Annual Average	Annual Change	% Change
1990	306,458		
1991	314,536	8,077	2.6%
1992	323,980	9,445	3.0%
1993	334,794	10,813	3.3%
1994	344,264	9,470	2.8%
1995	354,308	10,044	2.9%
1996	364,497	10,190	2.9%
1997	376,022	11,525	3.2%
1998	387,968	11,946	3.2%
1999	399,830	11,862	3.1%
2000	411,670	11,839	3.0%
2001	421,099	9,429	2.3%
2002	431,607	10,509	2.5%
2003	441,331	9,724	2.3%
2004	451,340	10,009	2.3%
2005	458,224	6,884	1.5%
2006	467,468	9,244	2.0%
2007	477,298	9,830	2.1%
2008	536,738	59,441	12.5%
2009	547,663	10,924	2.0%
2010	558,636	10,973	2.0%
2011	569,555	10,919	2.0%
2012	580,588	11,033	1.9%
2013	591,587	11,000	1.9%
2014	602,563	10,976	1.9%
2015	613,560	10,997	1.8%
2016	624,530	10,970	1.8%
2017	635,513	10,982	1.8%
2018	646,509	10,996	1.7%
2019	657,479	10,970	1.7%
2020	668,470	10,991	1.7%
2021	679,451	10,982	1.6%
2022	690,431	10,979	1.6%
2023	701,403	10,973	1.6%
2024	712,339	10,935	1.6%
2025	723,242	10,903	1.5%
2026	734,145	10,903	1.5%

Note: Warren RECC begins April 2008

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SECTION 6.0

RESIDENTIAL SALES FORECAST

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Section 6.0 Residential Sales Forecast

6.1 Methodology

EKPC uses statistically adjusted end-use (SAE) models to forecast residential sales. This method of modeling incorporates end-use forecasts in the background and can be used to decompose the monthly and annual forecasts into end-use components. SAE models offer the structure of end-use models while also utilizing the strength of time-series analysis.

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 end-use components as follows:

$$\text{Use}_{y,m} = \text{Heat}_{y,m} + \text{Cool}_{y,m} + \text{Water Heat}_{y,m} + \text{Other}_{y,m}$$

Where,
y=year
m=month

Each component is defined in terms of its end-use structure. For example, the cool index may be defined as a function of appliance saturation, efficiency of the appliance, and usage of the appliance. Annual end-use indices and a usage variable are constructed and used to develop a variable to be used in least squares regression in the model. These variables are constructed for heating, cooling, water heating, and an 'Other' variable, which includes lighting and other miscellaneous usages.

$$\text{CoolIndex}_y = \sum_{\text{Type}} \text{Wgt}^{\text{Type}} * \left(\frac{\text{CoolShare}_y^{\text{Type}}}{\text{CoolShare}_{98}^{\text{Type}}} \right) \left(\frac{\text{Eff}_y^{\text{Type}}}{\text{Eff}_{98}^{\text{Type}}} \right)$$

$$\text{CoolUse}_{y,m} = \left(\frac{\text{CDD}_{y,m}}{\text{NormCDD}} \right) * \left(\frac{\text{HHSize}_y}{\text{HHSize}_{by}} \right) * \left(\frac{\text{Income}_y}{\text{Income}_{by}} \right) * \left(\frac{\text{Price}_{y,m}^{-.30}}{\text{Price}_{by}} \right)$$

Where, by=base year

$$\text{Cool}_{y,m} = \text{CoolIndex}_y * \text{CoolUse}_{y,m}$$

The Cool, Heat, Water Heat, and Other variables are then used in a least squares regression which results in estimates for annual and monthly use per household.

Features of EKPC's SAE model are as follows:

1. Twenty years of End-use Survey historical data are used to forecast saturation of appliances.
2. Appliance efficiencies due to government regulation have been accounted for in the model. Indices pertaining to appliance efficiency trends and usage are used to construct energy models based on heating, cooling, water heating and other energy for the residential class.
Source: Energy Information Administration Annual Energy Outlook, East South Central region representing Kentucky.
3. Various demographic and socioeconomic factors that affect appliance choice and appliance use are present in the methodology. These include the changing shares of urban and rural customers relative to total customers, number of people living in the household, as well as square footage of the house and the thermal integrity of the house.

Model details of residential sales are provided in Table 6-1. Details by member system are provided in Appendix B.

Table 6-1
Residential Sales Forecast - Appliance Usage Projections
Dependent Variable: Appliance Usage

<i>Model Inputs</i>	<i>Source</i>
Residential Customers	Historical customers are taken from Form 7. Future customers are projected by EKPC and member systems.
Average Real Price of Electricity	Historical price is taken from Form 7. Future prices are projected by EKPC's Pricing Department and member systems.
Appliance Efficiency Improvements and Appliance Lifetimes	Energy Information Administration Annual Energy Outlook
Size of Water Heater	End-Use Survey, Trend Growth
Household Size (People Per Household)	Census Bureau, Trend Growth
Real Household Income	EKPC Regional Model

6.2 Appliance Saturation Projections

Every two years since 1981, EKPC has surveyed the member systems' residential customers. The most recent survey was conducted in 2005. EKPC gathers appliance, insulation, heating and cooling, economic, and demographic data. Appliance holdings of survey respondents are analyzed in order to better understand their electricity consumption and to project future appliance saturations.

EKPC's analysis and forecast of appliance saturations and appliance usage is econometric in nature. The decision made by customers to purchase an appliance can often be understood by examining customer income levels, fuel price, and household characteristics. The choice to purchase an appliance is modeled separately from the decision to use the appliance. This is because these actions are separate and subject to different driving forces.

Residential appliance saturation projections are shown in Table 6-2.

**Table 6-2
Appliance Saturations ~ Residential Class**

Year	Heat Pump Heating	Electric Furnace	Electric Resistance	Central Air	Heat Pump Cooling	Room Air	Electric Water Heating
1991	14.7%	13.7%	10.8%	25.0%	14.7%	43.0%	85.2%
1992	15.5%	13.9%	10.8%	27.0%	15.5%	42.2%	85.1%
1993	16.3%	13.9%	10.9%	29.0%	16.3%	41.3%	85.0%
1994	16.9%	13.9%	11.0%	28.6%	16.9%	40.1%	86.0%
1995	17.4%	14.0%	11.0%	28.1%	17.4%	38.8%	87.0%
1996	18.6%	14.1%	10.7%	29.8%	18.6%	37.1%	86.8%
1997	20.0%	14.2%	10.5%	31.5%	20.0%	35.5%	86.5%
1998	21.4%	14.3%	10.4%	33.4%	21.4%	34.1%	86.3%
1999	22.4%	14.5%	10.2%	35.3%	22.4%	32.7%	85.9%
2000	23.4%	14.6%	10.0%	37.3%	23.4%	31.2%	85.5%
2001	24.7%	14.8%	9.6%	39.4%	24.7%	29.8%	85.1%
2002	26.0%	14.9%	9.3%	39.8%	26.0%	28.4%	85.7%
2003	27.3%	15.4%	8.9%	40.1%	27.3%	27.0%	86.3%
2004	28.6%	15.9%	8.5%	40.2%	28.6%	25.5%	86.9%
2005	29.7%	16.4%	8.4%	41.9%	29.7%	24.2%	87.0%
2006	29.9%	16.6%	8.4%	42.0%	29.9%	23.8%	87.0%
2007	30.0%	16.9%	8.3%	42.1%	30.0%	23.4%	86.9%
2008	30.2%	17.2%	8.3%	42.2%	30.2%	23.1%	86.8%
2009	30.4%	17.5%	8.3%	42.3%	30.4%	22.7%	86.7%
2010	30.6%	17.7%	8.2%	42.4%	30.6%	22.3%	86.7%
2011	30.7%	18.0%	8.2%	42.5%	30.7%	21.9%	86.6%
2012	30.9%	18.3%	8.2%	42.6%	30.9%	21.6%	86.5%
2013	31.1%	18.6%	8.2%	42.7%	31.1%	21.2%	86.4%
2014	31.3%	18.8%	8.1%	42.8%	31.3%	20.8%	86.4%
2015	31.4%	19.1%	8.1%	42.9%	31.4%	20.4%	86.3%
2016	31.6%	19.4%	8.1%	43.0%	31.6%	20.1%	86.2%
2017	31.8%	19.7%	8.1%	43.1%	31.8%	19.7%	86.1%
2018	32.0%	19.9%	8.0%	43.2%	32.0%	19.3%	86.1%
2019	32.1%	20.2%	8.0%	43.3%	32.1%	18.9%	86.0%
2020	32.3%	20.5%	8.0%	43.4%	32.3%	18.6%	85.9%
2021	32.5%	20.8%	7.9%	43.5%	32.5%	18.2%	85.8%
2022	32.7%	21.0%	7.9%	43.6%	32.7%	17.8%	85.8%
2023	32.8%	21.3%	7.9%	43.7%	32.8%	17.4%	85.7%
2024	33.0%	21.6%	7.9%	43.8%	33.0%	17.1%	85.6%
2025	33.2%	21.9%	7.8%	43.9%	33.2%	16.7%	85.5%
2026	33.4%	22.1%	7.8%	44.0%	33.4%	16.3%	85.5%

**Table 6-2 Continued
Appliance Saturations ~ Residential Class**

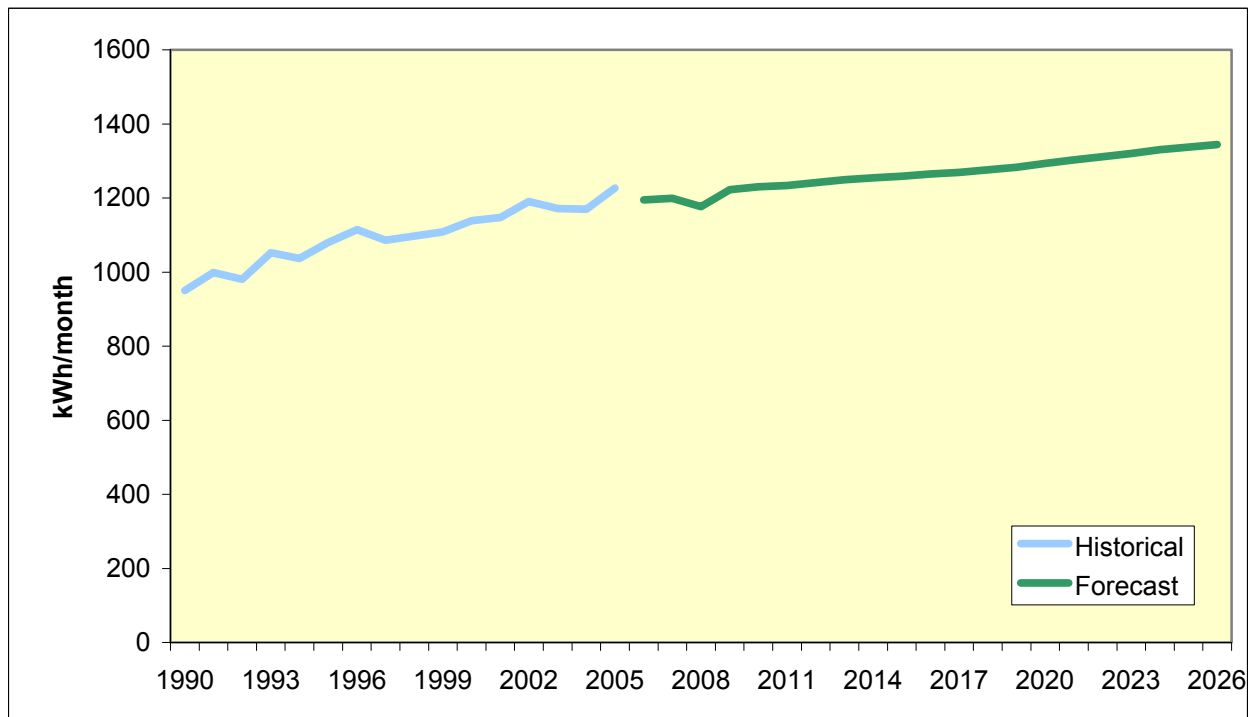
Year	Automatic Defrost Refrigerator	Freezer	Clothes Washer	Electric Clothes Dryer	Electric Range	Color TV	Microwave	Water Pump	Dishwasher
1991	73.4%	61.1%	81.4%	69.3%	80.1%	103.0%	73.6%	28.3%	22.2%
1992	79.6%	62.9%	82.2%	72.7%	82.4%	116.0%	78.2%	27.6%	24.6%
1993	85.7%	64.6%	83.0%	76.1%	84.7%	128.9%	82.8%	26.9%	27.0%
1994	89.0%	63.7%	84.9%	75.5%	85.4%	134.2%	75.5%	23.4%	23.5%
1995	92.2%	62.8%	86.7%	74.9%	86.1%	139.5%	68.2%	22.7%	20.0%
1996	92.3%	61.7%	89.5%	78.7%	86.1%	145.5%	71.4%	22.0%	21.8%
1997	92.4%	60.5%	92.4%	82.4%	86.1%	151.5%	74.6%	21.3%	23.6%
1998	94.6%	60.8%	92.8%	83.9%	86.5%	156.0%	77.2%	20.9%	27.9%
1999	96.9%	61.0%	93.2%	85.3%	86.9%	160.4%	79.9%	20.5%	32.2%
2000	99.2%	61.3%	93.6%	86.7%	87.3%	164.8%	82.6%	20.1%	36.5%
2001	101.5%	61.5%	94.0%	88.2%	87.7%	169.2%	85.3%	19.7%	40.7%
2002	103.8%	61.8%	94.3%	89.6%	88.1%	173.7%	88.0%	19.3%	45.0%
2003	106.1%	62.0%	94.7%	91.0%	88.5%	178.1%	90.6%	18.9%	49.3%
2004	108.4%	62.3%	95.1%	92.4%	88.8%	182.5%	93.3%	18.5%	53.6%
2005	109.1%	62.8%	95.2%	94.8%	89.6%	183.7%	94.2%	18.1%	55.2%
2006	109.2%	62.9%	95.3%	94.8%	89.7%	184.7%	94.3%	17.8%	55.5%
2007	109.4%	63.1%	95.3%	94.9%	89.7%	185.7%	94.3%	17.6%	55.8%
2008	109.5%	63.2%	95.4%	94.9%	89.8%	186.7%	94.4%	17.3%	56.1%
2009	109.7%	63.4%	95.4%	95.0%	89.8%	187.7%	94.4%	17.1%	56.4%
2010	109.8%	63.5%	95.5%	95.0%	89.9%	188.7%	94.5%	16.8%	56.7%
2011	110.0%	63.7%	95.5%	95.1%	89.9%	189.7%	94.5%	16.6%	57.0%
2012	110.1%	63.8%	95.6%	95.1%	90.0%	190.7%	94.6%	16.3%	57.3%
2013	110.3%	64.0%	95.6%	95.2%	90.0%	191.7%	94.6%	16.1%	57.6%
2014	110.4%	64.1%	95.6%	95.2%	90.1%	192.7%	94.7%	15.8%	57.9%
2015	110.6%	64.3%	95.7%	95.3%	90.1%	193.7%	94.7%	15.6%	58.2%
2016	110.7%	64.4%	95.7%	95.3%	90.2%	194.7%	94.8%	15.3%	58.5%
2017	110.9%	64.6%	95.8%	95.4%	90.2%	195.7%	94.8%	15.1%	58.8%
2018	111.0%	64.7%	95.8%	95.4%	90.3%	196.7%	94.9%	14.8%	59.1%
2019	111.2%	64.9%	95.9%	95.5%	90.3%	197.7%	94.9%	14.6%	59.4%
2020	111.3%	65.0%	95.9%	95.5%	90.4%	198.7%	95.0%	14.3%	59.7%
2021	111.5%	65.2%	96.0%	95.6%	90.4%	199.7%	95.0%	14.1%	60.0%
2022	111.6%	65.3%	96.0%	95.6%	90.5%	200.7%	95.1%	13.8%	60.3%
2023	111.8%	65.5%	96.1%	95.7%	90.5%	201.7%	95.1%	13.6%	60.6%
2024	111.9%	65.6%	96.1%	95.7%	90.6%	202.7%	95.2%	13.3%	60.9%
2025	112.1%	65.8%	96.2%	95.8%	90.6%	203.7%	95.2%	13.1%	61.2%
2026	112.2%	65.9%	96.2%	95.8%	90.7%	204.7%	95.3%	12.8%	61.5%

6.3 Residential Class Sales Forecast Results

Sales to the Residential Class are expected to grow 2.9% over the next 20 years. Electric use per customer is continuing to grow modestly, however, the projection is more modest than in the 2004 forecast. Increasing house size is contributing to the increase, as well as more appliances in each home. The End-Use Survey supports this assumption. The result is larger heating and cooling requirements. However, efficiency improvements in appliances and in housing construction tend to dampen consumption levels. The forecast of residential sales is impacted by large improvements in appliance efficiency. By 2026, EKPC projects residential retail sales to have been reduced by nearly 1,200,000 MWh, due primarily to more efficient refrigerators, freezers, and air conditioning.

Figure 6-1 illustrates the monthly use per customer trend. Table 6-3 reports historical and projected use per customer and class sales.

Figure 6-1
Average Monthly Use Per Customer
Residential Class



**Table 6-3
Residential Class
Customers and Sales**

	<i>Customers</i>			<i>Use Per Customer</i>			<i>Class Sales</i>		
	Annual Average	Annual Change	% Change	Monthly Average (kWh)	Annual Change (kWh)	% Change	Total (MWh)	Annual Change (MWh)	% Change
1990	306,458			951			3,495,899		
1991	314,536	8,077	2.6	999	48	5.0	3,769,089	273,189	7.8
1992	323,980	9,445	3.0	980	-18	-1.8	3,811,817	42,729	1.1
1993	334,794	10,813	3.3	1,053	72	7.4	4,228,581	416,763	10.9
1994	344,264	9,470	2.8	1,037	-16	-1.5	4,283,267	54,687	1.3
1995	354,308	10,044	2.9	1,080	43	4.1	4,591,084	307,817	7.2
1996	364,497	10,190	2.9	1,114	34	3.2	4,873,716	282,632	6.2
1997	376,022	11,525	3.2	1,086	-29	-2.6	4,899,179	25,463	0.5
1998	387,968	11,946	3.2	1,097	11	1.0	5,107,125	207,947	4.2
1999	399,830	11,862	3.1	1,109	12	1.1	5,318,860	211,735	4.1
2000	411,670	11,839	3.0	1,139	30	2.7	5,624,384	305,524	5.7
2001	421,099	9,429	2.3	1,147	8	0.7	5,795,728	171,344	3.0
2002	431,607	10,509	2.5	1,190	43	3.8	6,164,400	368,672	6.4
2003	441,331	9,724	2.3	1,171	-19	-1.6	6,203,143	38,743	0.6
2004	451,340	10,009	2.3	1,170	-2	-0.1	6,335,445	132,302	2.1
2005	458,224	6,884	1.5	1,226	57	4.8	6,743,486	408,040	6.4
2006	467,468	9,244	2.0	1,195	-32	-2.6	6,702,645	-40,841	-0.6
2007	477,298	9,830	2.1	1,199	4	0.3	6,865,831	163,186	2.4
2008	536,738	59,441	12.5	1,176	-22	-1.9	7,576,749	710,918	10.4
2009	547,663	10,924	2.0	1,223	46	4.0	8,036,352	459,603	6.1
2010	558,636	10,973	2.0	1,230	7	0.6	8,246,901	210,549	2.6
2011	569,555	10,919	2.0	1,234	4	0.3	8,432,930	186,029	2.3
2012	580,588	11,033	1.9	1,242	8	0.6	8,650,448	217,518	2.6
2013	591,587	11,000	1.9	1,249	8	0.6	8,868,278	217,830	2.5
2014	602,563	10,976	1.9	1,254	5	0.4	9,069,536	201,259	2.3
2015	613,560	10,997	1.8	1,259	5	0.4	9,270,396	200,859	2.2
2016	624,530	10,970	1.8	1,265	6	0.5	9,479,347	208,951	2.3
2017	635,513	10,982	1.8	1,269	5	0.4	9,681,304	201,957	2.1
2018	646,509	10,996	1.7	1,276	7	0.5	9,900,800	219,496	2.3
2019	657,479	10,970	1.7	1,283	7	0.5	10,120,469	219,669	2.2
2020	668,470	10,991	1.7	1,293	10	0.8	10,371,328	250,859	2.5
2021	679,451	10,982	1.6	1,303	10	0.8	10,624,237	252,909	2.4
2022	690,431	10,979	1.6	1,312	9	0.7	10,867,695	243,457	2.3
2023	701,403	10,973	1.6	1,320	9	0.7	11,112,981	245,286	2.3
2024	712,339	10,935	1.6	1,330	10	0.8	11,371,259	258,278	2.3
2025	723,242	10,903	1.5	1,337	7	0.5	11,605,707	234,448	2.1
2026	734,145	10,903	1.5	1,344	7	0.5	11,840,688	234,981	2.0

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SECTION 7.0

**COMMERCIAL AND
OTHER SALES FORECAST**

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Section 7.0

Commercial and Other Sales Forecast

7.1 Small Commercial Sales Forecast

Member system cooperatives classify commercial and industrial accounts into two groups. Customers whose annual peak demand is less than 1 MW are classified as small commercial customers and customers whose annual peak demand is greater than or equal to 1 MW are classified as large commercial customers. Most commercial customers are accounted for in the small commercial classification. In 2005, there were over 30,000 small commercial customers on the system.

EKPC projects class sales by member system through regression analysis of historical data. Typical regressions include small commercial customers as a function of residential customers, unemployment rate, and other economic variables. The sales regression usually includes customers, electric price, and other economic measures as explanatory variables. Historical and projected small commercial sales for EKPC are reported in Table 7-1. Member system regression equations are in Appendix B.

7.2 Large Commercial Sales Forecast

In 2005, there were 139 retail customers classified as large commercial customers. The total annual usage was greater than the annual usage of the small commercial class. The overall importance of the Large Commercial Class cannot be overemphasized, as this class has experienced substantial growth since 1995. Approximately half of EKPC's large commercial customers are manufacturing plants.

The Large Commercial Class is forecasted using input from member systems as well as a modeling approach. New industrial customers that member systems expect in the next few years are explicitly input into the models. To estimate total new large loads at the system level, a regression approach is used. A probabilistic model is then used to distribute these customers among the 16 member systems. A prototype load of 1.5 MW and 60% load factor is assumed for these new loads. This methodology for forecasting new large commercial customers and energy provides a robust and defensible projection at the member system level as well as the system level. Table 7-2 reports historical and projected large commercial customers and sales.

Member systems are in regular contact with large commercial customers in order to remain current with production and facility expansion plans. Member systems communicate with local industrial development groups, which keeps them aware of the status of new large commercial customers. EKPC has a program of industrial recruiting, and promotes industrial sites that are within member systems' service areas. EKPC and its members are working hard to contribute to local efforts to attract industry.

7.3 Seasonal Sales Forecast

Seasonal sales are sales to customers with seasonal residences such as vacation and weekend homes. Seasonal sales are relatively small and are reported by only one of EKPC's member systems. Table 7-3 reports historical and projected seasonal sales for EKPC.

7.4 Public Building Sales Forecast

Public Building sales include sales to accounts such as government buildings and libraries. The sales are relatively small and are reported by only two of EKPC's member systems. Table 7-4 reports historical and projected public building sales for EKPC.

7.5 Other Sales Forecast

Other retail sales refer mainly to street lighting. Table 7-5 reports historical and projected retail sales for this class. This class is reported by 11 member systems.

**Table 7-1
Historical and Projected Small Commercial Customers and Sales**

	Annual Average	Annual Change	% Change	Annual Average (MWh)	Annual Change (MWh)	% Change	Total (MWh)	Annual Change (MWh)	% Change
1990	22,169			37			813,371		
1991	17,512	-4,656	-21.0	50	13	35.1	868,031	54,660	6.7
1992	18,055	542	3.1	51	1	2.1	913,599	45,567	5.2
1993	18,561	507	2.8	53	2	4.4	980,301	66,702	7.3
1994	19,092	531	2.9	53	0	0.6	1,014,549	34,248	3.5
1995	19,669	576	3.0	56	3	5.0	1,097,729	83,180	8.2
1996	20,399	731	3.7	56	0	0.0	1,138,469	40,740	3.7
1997	21,084	685	3.4	55	-1	-1.1	1,163,683	25,214	2.2
1998	21,834	750	3.6	56	1	2.1	1,230,450	66,767	5.7
1999	22,813	979	4.5	59	2	4.0	1,336,957	106,506	8.7
2000	23,730	918	4.0	61	2	4.0	1,446,958	110,001	8.2
2001	25,129	1,399	5.9	60	-1	-1.7	1,505,480	58,522	4.0
2002	26,340	1,211	4.8	60	0	0.0	1,577,590	72,110	4.8
2003	26,661	320	1.2	58	-2	-2.9	1,550,248	-27,342	-1.7
2004	28,125	1,464	5.5	57	-1	-2.3	1,598,111	47,864	3.1
2005	30,613	2,488	8.8	57	0	-0.4	1,733,280	135,169	8.5
2006	29,717	-896	-2.9	60	3	5.8	1,780,456	47,176	2.7
2007	30,471	753	2.5	61	1	1.0	1,844,468	64,011	3.6
2008	40,792	10,321	33.9	53	-8	-13.2	2,143,068	298,600	16.2
2009	41,776	984	2.4	54	2	3.5	2,271,045	127,977	6.0
2010	42,756	980	2.3	55	0	0.3	2,330,473	59,428	2.6
2011	43,731	974	2.3	55	0	0.2	2,387,349	56,876	2.4
2012	44,703	973	2.2	55	0	0.1	2,443,562	56,213	2.4
2013	45,675	972	2.2	55	0	0.1	2,499,753	56,191	2.3
2014	46,648	973	2.1	55	0	0.1	2,555,818	56,065	2.2
2015	47,623	975	2.1	55	0	0.1	2,612,249	56,431	2.2
2016	48,599	975	2.0	55	0	0.1	2,669,288	57,039	2.2
2017	49,575	976	2.0	55	0	0.2	2,727,493	58,205	2.2
2018	50,556	981	2.0	55	0	0.2	2,786,650	59,157	2.2
2019	51,539	983	1.9	55	0	0.2	2,846,226	59,576	2.1
2020	52,520	981	1.9	55	0	0.2	2,905,708	59,483	2.1
2021	53,502	982	1.9	55	0	0.2	2,965,803	60,095	2.1
2022	54,483	981	1.8	56	0	0.2	3,025,759	59,956	2.0
2023	55,463	979	1.8	56	0	0.2	3,085,307	59,548	2.0
2024	56,440	977	1.8	56	0	0.2	3,144,693	59,386	1.9
2025	57,413	974	1.7	56	0	0.1	3,203,587	58,894	1.9
2026	58,387	974	1.7	56	0	0.1	3,262,188	58,601	1.8

Note: Warren begins April 2008

**Table 7-2
Historical and Projected Large Commercial Customers and Sales**

	Annual Average	Annual Change	% Change	Annual Average (MWh)	Annual Change (MWh)	% Change	Total (MWh)	Annual Change (MWh)	% Change
1990	59			11,139			653,502		
1991	66	7	12.5	10,991	-148	-1.3	725,419	71,917	11.0
1992	64	-2	-2.5	12,066	1,075	9.8	776,268	50,848	7.0
1993	68	3	4.9	14,346	2,280	18.9	968,345	192,078	24.7
1994	72	4	6.3	14,313	-33	-0.2	1,026,927	58,582	6.0
1995	71	-1	-1.6	15,859	1,546	10.8	1,119,361	92,435	9.0
1996	78	8	10.9	15,192	-667	-4.2	1,188,760	69,398	6.2
1997	86	8	9.8	14,628	-563	-3.7	1,256,829	68,069	5.7
1998	95	9	10.4	14,192	-437	-3.0	1,345,859	89,031	7.1
1999	101	6	6.1	14,069	-123	-0.9	1,415,128	69,269	5.1
2000	103	3	2.6	14,574	505	3.6	1,503,523	88,395	6.2
2001	112	8	8.1	14,943	369	2.5	1,666,141	162,618	10.8
2002	111	-1	-0.4	16,201	1,258	8.4	1,798,352	132,211	7.9
2003	133	22	19.4	14,135	-2,067	-12.8	1,874,044	75,692	4.2
2004	136	4	2.6	14,622	487	3.4	1,989,780	115,736	6.2
2005	139	3	2.2	14,530	-91	-0.6	2,020,930	31,150	1.6
2006	140	1	0.5	15,144	614	4.2	2,116,434	95,503	4.7
2007	152	12	8.4	14,901	-243	-1.6	2,257,560	141,126	6.7
2008	217	66	43.2	13,491	-1,411	-9.5	2,927,518	669,958	29.7
2009	224	7	3.2	14,231	740	5.5	3,187,814	260,297	8.9
2010	232	8	3.6	14,230	-1	0.0	3,301,354	113,540	3.6
2011	238	6	2.6	14,270	40	0.3	3,396,327	94,973	2.9
2012	241	3	1.3	14,414	144	1.0	3,473,788	77,461	2.3
2013	244	3	1.2	14,551	137	0.9	3,550,403	76,615	2.2
2014	247	3	1.2	14,680	129	0.9	3,625,976	75,573	2.1
2015	250	3	1.2	14,804	123	0.8	3,700,886	74,911	2.1
2016	255	5	2.0	14,872	68	0.5	3,792,252	91,366	2.5
2017	259	4	1.6	14,965	93	0.6	3,875,814	83,562	2.2
2018	262	3	1.2	15,083	118	0.8	3,951,703	75,889	2.0
2019	268	6	2.3	15,120	37	0.2	4,052,080	100,378	2.5
2020	273	5	1.9	15,179	59	0.4	4,143,897	91,817	2.3
2021	277	4	1.5	15,260	81	0.5	4,227,112	83,215	2.0
2022	282	5	1.8	15,312	51	0.3	4,317,896	90,784	2.1
2023	286	4	1.4	15,384	73	0.5	4,399,917	82,021	1.9
2024	289	3	1.0	15,478	93	0.6	4,473,032	73,115	1.7
2025	293	4	1.4	15,542	64	0.4	4,553,769	80,737	1.8
2026	297	4	1.4	15,547	5	0.0	4,617,527	63,758	1.4

Note: Warren begins April 2008

**Table 7-3
Historical and Projected Seasonal Customers and Sales**

	Annual Average	Annual Change	% Change	Monthly Average (kWh)	Annual Change (kWh)	% Change	Total (MWh)	Annual Change (MWh)	% Change
1990	3,020			251			9,094		
1991	3,133	113	3.7	251	0	-0.1	9,423	329	3.6
1992	3,288	156	5.0	247	-3	-1.4	9,756	333	3.5
1993	2,693	-596	-18.1	314	67	27.0	10,144	389	4.0
1994	2,817	124	4.6	304	-10	-3.1	10,280	136	1.3
1995	2,936	120	4.2	314	10	3.3	11,066	786	7.6
1996	3,119	183	6.2	330	16	5.0	12,342	1,276	11.5
1997	2,996	-123	-4.0	331	1	0.3	11,888	-454	-3.7
1998	3,417	421	14.0	280	-51	-15.4	11,476	-412	-3.5
1999	3,563	146	4.3	269	-11	-3.9	11,496	20	0.2
2000	3,713	151	4.2	280	11	4.2	12,479	983	8.6
2001	3,799	85	2.3	280	0	0.0	12,769	290	2.3
2002	3,956	157	4.1	297	16	5.8	14,076	1,307	10.2
2003	4,046	90	2.3	277	-20	-6.6	13,445	-631	-4.5
2004	4,162	116	2.9	277	0	0.1	13,846	402	3.0
2005	4,297	135	3.2	281	4	1.4	14,501	655	4.7
2006	4,412	115	2.7	273	-8	-3.0	14,445	-56	-0.4
2007	4,514	102	2.3	276	3	1.1	14,945	500	3.5
2008	4,616	102	2.3	279	3	1.2	15,470	525	3.5
2009	4,718	102	2.2	283	3	1.2	16,009	539	3.5
2010	4,821	103	2.2	285	2	0.8	16,493	484	3.0
2011	4,924	103	2.1	286	1	0.4	16,911	418	2.5
2012	5,028	104	2.1	289	3	1.2	17,466	555	3.3
2013	5,132	104	2.1	293	3	1.1	18,016	550	3.2
2014	5,236	104	2.0	295	2	0.8	18,535	519	2.9
2015	5,341	105	2.0	297	2	0.8	19,050	515	2.8
2016	5,446	105	2.0	300	3	0.9	19,593	543	2.9
2017	5,552	106	1.9	302	2	0.6	20,098	504	2.6
2018	5,658	106	1.9	304	2	0.8	20,637	539	2.7
2019	5,764	106	1.9	307	3	0.9	21,220	583	2.8
2020	5,871	107	1.9	311	4	1.2	21,880	660	3.1
2021	5,978	107	1.8	314	3	1.1	22,524	644	2.9
2022	6,086	108	1.8	317	3	1.1	23,173	648	2.9
2023	6,194	108	1.8	321	3	1.0	23,824	651	2.8
2024	6,302	108	1.7	324	4	1.1	24,512	689	2.9
2025	6,411	109	1.7	326	2	0.7	25,103	590	2.4
2026	6,520	109	1.7	329	3	0.9	25,765	662	2.6

Note: Warren begins April 2008

**Table 7-4
Historical and Projected Public Buildings Customers and Sales**

	Annual Average	Annual Change	% Change	Monthly Average (kWh)	Annual Change (MWh)	% Change	Total (MWh)	Annual Change (MWh)	% Change
1990	897			1,000			10,770		
1991	913	16	1.8	1,072	72	7.2	11,744	974	9.0
1992	926	13	1.4	1,201	130	12.1	13,345	1,601	13.6
1993	979	54	5.8	1,334	133	11.1	15,684	2,339	17.5
1994	995	15	1.5	1,347	12	0.9	16,073	389	2.5
1995	1,016	22	2.2	1,453	106	7.9	17,715	1,642	10.2
1996	1,022	6	0.6	1,527	75	5.1	18,732	1,017	5.7
1997	1,040	18	1.7	1,455	-72	-4.7	18,151	-580	-3.1
1998	1,069	29	2.8	1,497	42	2.9	19,191	1,040	5.7
1999	1,077	9	0.8	1,529	32	2.1	19,763	572	3.0
2000	1,093	16	1.5	1,555	26	1.7	20,397	634	3.2
2001	1,120	27	2.5	1,564	10	0.6	21,032	635	3.1
2002	1,144	23	2.1	1,660	95	6.1	22,776	1,744	8.3
2003	1,165	22	1.9	1,715	55	3.3	23,975	1,199	5.3
2004	1,177	12	1.0	1,789	74	4.3	25,266	1,291	5.4
2005	1,173	-4	-0.3	1,781	-8	-0.5	25,065	-200	-0.8
2006	1,185	12	1.0	1,771	-10	-0.5	25,185	120	0.5
2007	1,198	13	1.1	1,800	29	1.6	25,880	694	2.8
2008	1,210	12	1.0	1,830	30	1.7	26,578	698	2.7
2009	1,221	11	0.9	1,865	35	1.9	27,330	753	2.8
2010	1,232	11	0.9	1,896	30	1.6	28,023	693	2.5
2011	1,242	10	0.8	1,924	28	1.5	28,674	651	2.3
2012	1,254	12	1.0	1,952	28	1.5	29,377	703	2.5
2013	1,265	11	0.9	1,984	32	1.6	30,115	738	2.5
2014	1,276	11	0.9	2,012	29	1.4	30,813	699	2.3
2015	1,286	10	0.8	2,041	28	1.4	31,491	677	2.2
2016	1,296	10	0.8	2,069	28	1.4	32,174	683	2.2
2017	1,308	12	0.9	2,094	25	1.2	32,868	694	2.2
2018	1,319	11	0.8	2,121	27	1.3	33,574	706	2.1
2019	1,329	10	0.8	2,150	29	1.4	34,287	713	2.1
2020	1,340	11	0.8	2,173	23	1.1	34,941	654	1.9
2021	1,350	10	0.7	2,199	26	1.2	35,626	684	2.0
2022	1,360	10	0.7	2,224	25	1.1	36,294	669	1.9
2023	1,371	11	0.8	2,242	18	0.8	36,890	596	1.6
2024	1,381	10	0.7	2,262	20	0.9	37,483	593	1.6
2025	1,391	10	0.7	2,281	19	0.8	38,068	585	1.6
2026	1,401	10	0.7	2,299	18	0.8	38,649	581	1.5

Note: Warren begins April 2008

**Table 7-5
Historical and Projected Other Customers and Sales**

	Annual Average	Annual Change	% Change	Monthly Average (kWh)	Annual Change (kWh)	% Change	Total (MWh)	Annual Change (MWh)	% Change
1990	207			1,504			3,737		
1991	218	11	5.3	1,540	36	2.4	4,029	292	7.8
1992	228	10	4.6	1,573	33	2.1	4,304	275	6.8
1993	252	24	10.5	1,680	107	6.8	5,081	776	18.0
1994	284	32	12.7	1,219	-461	-27.4	4,156	-925	-18.2
1995	347	63	22.2	1,211	-8	-0.7	5,042	887	21.3
1996	417	70	20.2	1,110	-101	-8.3	5,555	513	10.2
1997	395	-22	-5.3	1,195	85	7.6	5,663	108	1.9
1998	296	-99	-25.1	1,577	382	32.0	5,601	-63	-1.1
1999	315	19	6.4	1,524	-53	-3.4	5,756	156	2.8
2000	316	1	0.4	1,624	101	6.6	6,160	404	7.0
2001	330	14	4.3	1,655	30	1.9	6,545	385	6.3
2002	353	24	7.2	1,676	21	1.3	7,107	562	8.6
2003	366	13	3.6	1,696	20	1.2	7,447	340	4.8
2004	377	11	2.9	1,659	-36	-2.1	7,498	51	0.7
2005	389	12	3.2	1,654	-6	-0.3	7,711	212	2.8
2006	398	10	2.5	1,663	9	0.6	7,945	234	3.0
2007	407	9	2.3	1,669	6	0.4	8,157	212	2.7
2008	613	206	50.6	1,677	8	0.5	12,341	4,184	51.3
2009	629	15	2.5	1,825	149	8.9	13,773	1,431	11.6
2010	644	15	2.4	1,827	2	0.1	14,125	352	2.6
2011	660	15	2.4	1,828	1	0.0	14,469	344	2.4
2012	675	15	2.3	1,830	1	0.1	14,817	348	2.4
2013	690	15	2.3	1,830	0	0.0	15,156	339	2.3
2014	706	15	2.2	1,829	0	0.0	15,492	336	2.2
2015	721	15	2.2	1,829	-1	0.0	15,824	332	2.1
2016	736	15	2.1	1,828	-1	0.0	16,155	331	2.1
2017	752	15	2.1	1,827	-1	-0.1	16,484	329	2.0
2018	767	15	2.0	1,827	-1	0.0	16,815	331	2.0
2019	783	15	2.0	1,825	-1	-0.1	17,140	324	1.9
2020	798	15	2.0	1,824	-1	-0.1	17,466	326	1.9
2021	813	15	1.9	1,823	-1	-0.1	17,788	322	1.8
2022	829	15	1.9	1,821	-1	-0.1	18,110	322	1.8
2023	844	15	1.9	1,820	-2	-0.1	18,429	320	1.8
2024	859	15	1.8	1,818	-2	-0.1	18,745	315	1.7
2025	875	15	1.8	1,815	-2	-0.1	19,057	313	1.7
2026	890	15	1.8	1,813	-3	-0.1	19,365	308	1.6

Note: Warren begins April 2008

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SECTION 8.0

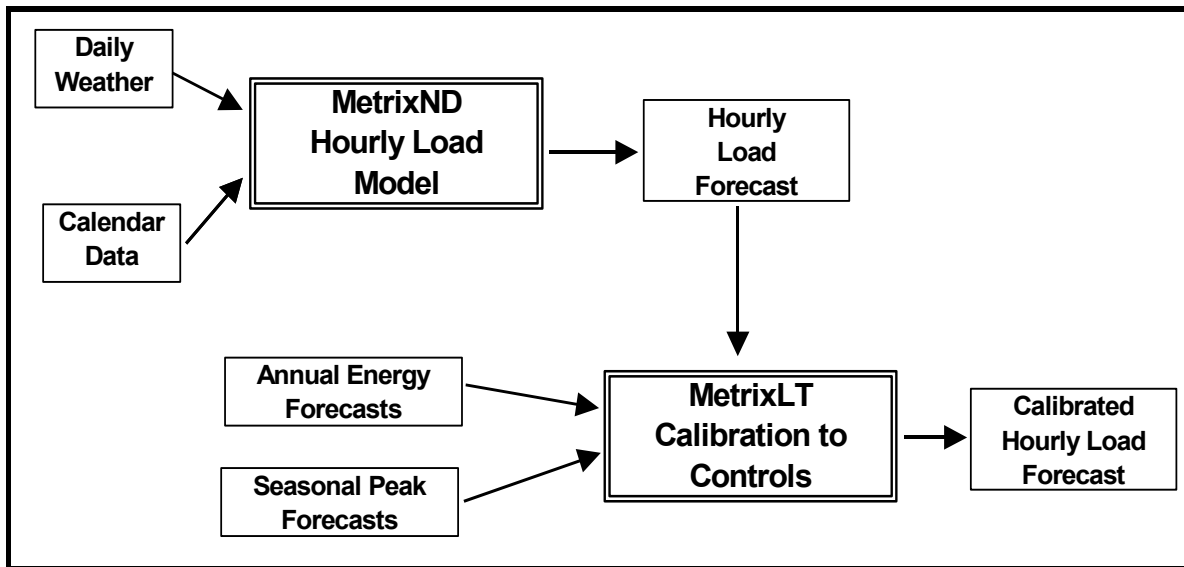
**PEAK DEMAND FORECAST
&
HIGH AND LOW CASE SCENARIOS**

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Section 8.0 Peak Demand Forecast High and Low Case Scenarios

8.1 Methodology

Prior to 2002, EKPC developed peak demands using end-use load shape data in HELM software. In 2002, EKPC began using Metrix products for forecasting. Now the following process flow is used:



Individual member system forecasts are summed to create an EKPC system forecast. Class energies, as well as winter and summer peak demands, are summed. This is used to create an hourly load model for each of the forecast years. The system load shape is determined from actual historical load data. This hourly load forecast is then calibrated to the seasonal peak demands and annual energy forecasts to build the hourly load forecast for the EKPC system. The software used is Metrix LT from ITRON, formerly RER, Inc.

The data used to forecast seasonal peak demands include:

1. Residential contributions are based on seasonal energy usages for: water heating, air conditioning, heating, and the residual load. Load factors are applied and peak demands are summed to build the class seasonal peak.
2. Small and Large Commercial contributions are based on aggregate class peaks.
3. Normal weather is used for the forecast years.

4. Transmission and distribution losses are accounted for in the model. Table 8-1 shows the historical transmission line losses on the seasonal peak days.

Table 8-1
Historical Transmission Line Losses, Peak Day

Year	Winter Peak Demand, Including Transmission Losses (MW)	Winter Peak Demand, Without Transmission Losses (MW)	Transmission Losses (%)	Summer Peak Demand, Including Transmission Losses (MW)	Summer Peak Demand, Without Transmission Losses (MW)	Transmission Losses (%)
1986	1,039	1,003	3.5	857	817	4.7
1987	983	951	3.3	906	854	5.7
1988	1,104	1,073	2.8	1,055	1,009	4.4
1989	1,114	1,097	1.5	1,010	984	2.6
1990	1,449	1,402	3.2	1,075	1,027	4.5
1991	1,306	1,266	3.1	1,164	1,107	4.9
1992	1,383	1,339	3.2	1,131	1,103	2.5
1993	1,473	1,410	4.3	1,309	1,269	3.1
1994	1,788	1,729	3.3	1,314	1,251	5.0
1995	1,621	1,572	3.1	1,518	1,453	4.5
1996	1,990	1,894	5.1	1,540	1,469	4.8
1997	2,004	1,903	5.3	1,650	1,551	6.4
1998	1,789	1,756	1.9	1,675	1,595	5.0
1999	2,096	2,018	3.9	1,754	1,734	1.2
2000	2,169	2,065	5.0	1,941	1,843	5.3
2001	2,322	2,207	5.2	1,980	1,892	4.6
2002	2,217	2,109	5.1	2,120	2,043	3.7
2003	2,568	2,479	3.6	1,996	1,936	3.1
2004	2,610	2,546	2.5	2,052	1,994	2.9
2005	2,719	2,626	3.5	2,220	2,115	5.0
Average Percent Loss			3.7			4.3

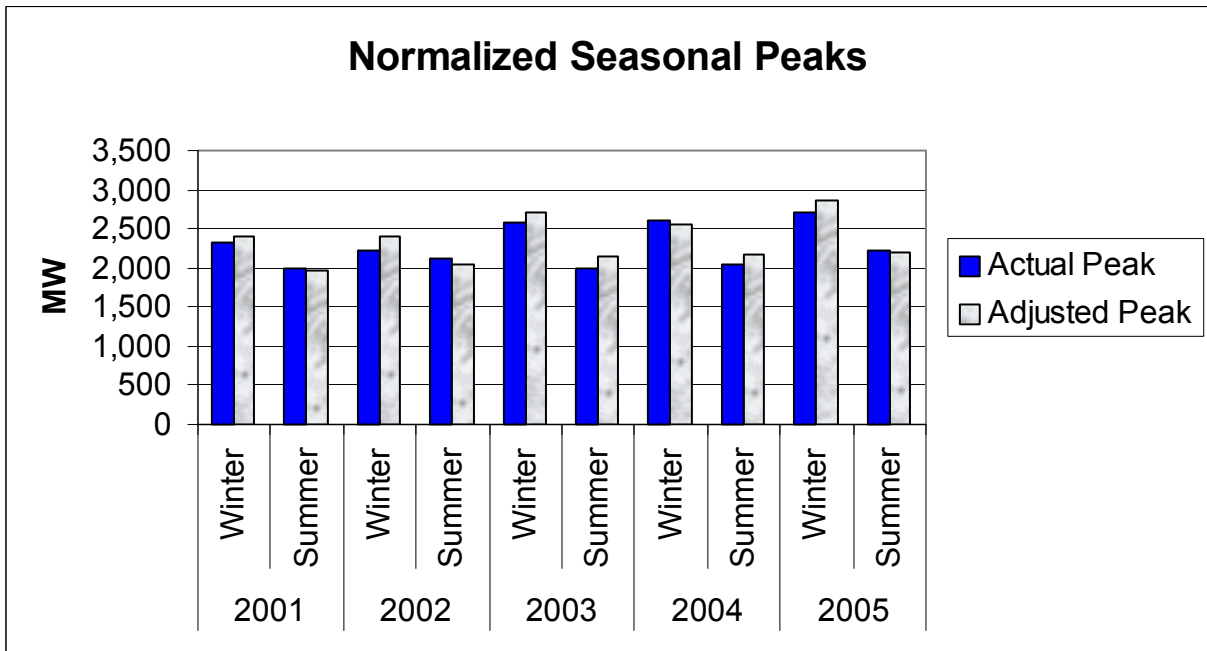
8.2 Weather Normalized Historical Peaks

The weather normalized coincident peak demands for winter and summer are shown in Table 8-2 and in Figure 8-1.

Table 8-2
Weather Normalized Coincident Peak Demands

Year	Season	Actual Peak	Adjusted Peak
		MW	MW
2001	Winter	2,322	2,402
	Summer	1,980	1,979
2002	Winter	2,217	2,392
	Summer	2,120	2,056
2003	Winter	2,568	2,696
	Summer	1,996	2,134
2004	Winter	2,610	2,562
	Summer	2,052	2,179
2005	Winter	2,719	2,863
	Summer	2,220	2,198

Figure 8-1
Weather Normalized Coincident Peak Demands



8.3 Peak Demand and Scenario Results

In addition to the forecasted peaks, high and low cases around the base case are developed. The same methodology is used, however, the starting summary file is different. Instead of using the sum of the member system files, two new models are built: one reflecting assumptions that result in high usage and one with assumptions that result in low usage. The assumptions that are varied include:

1. Weather – assumed 2 standard deviations above and below the base case heating and cooling degree day (HDD and CDD) assumptions
2. Electric price – assumed the residential rate would be 15% higher than the base case rate, which results in lower usage, for the low case and 15% lower for the high case
3. Residential customers – assumed 2 standard deviations above and below the base case annual average residential customers
4. Appliance saturation projections for the residential class
5. Small and Large Commercial energy – energy was modeled probabilistically, assuming a normal distribution and a standard deviation based on the historical data; the resulting 90%/10% output was used as the forecasted class energy

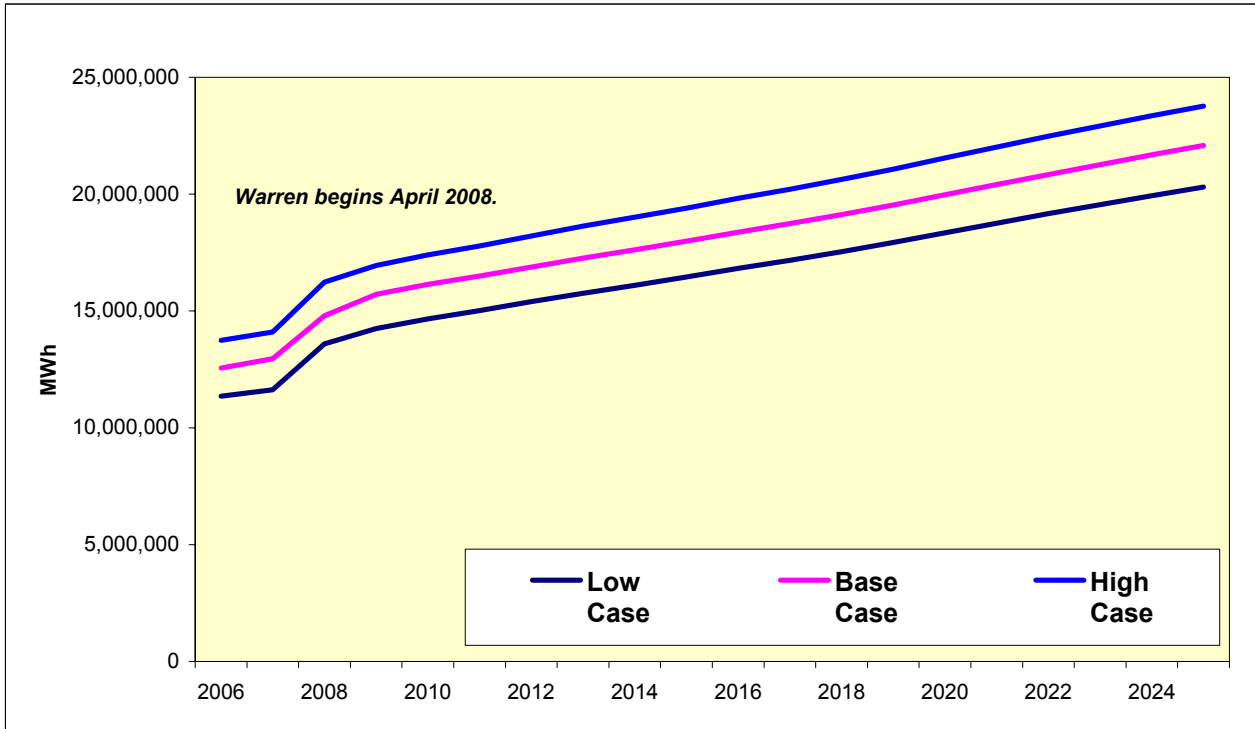
Adjusting these assumptions leads to different customer forecasts which in turn results in different energy forecasts. For the small and large commercial classes, the customer and energy forecasts for the high and low case are produced using probabilistic modeling in @RISK. The customer and energy forecasts are added to the residential forecast to produce the system forecast which is then used to create the hourly forecasts as described above.

After the annual energies and seasonal peaks for the cases are prepared, the same process of calibrating the system shape to these levels is followed. The results are shown in Tables 8-3 and Figures 8-2 through 8-4.

**Table 8-3
Peak Demand Scenarios**

Total Winter Peak Demand (MW)				Total Summer Peak Demand (MW)				Total Requirements Includes Gallatin Steel (MWh)			
Season	Low Case	Base Case	High Case	Year	Low Case	Base Case	High Case	Year	Low Case	Base Case	High Case
				2006	1,829	2,159	2,423	2006	11,362,043	12,556,759	13,743,274
2006 - 07	2,461	2,781	3,134	2007	1,894	2,221	2,490	2007	11,632,503	12,956,841	14,101,331
2007 - 08	2,486	2,856	3,207	2008	2,252	2,651	2,883	2008	13,595,326	14,793,556	16,227,134
2008 - 09	2,876	3,354	3,675	2009	2,382	2,729	3,025	2009	14,248,260	15,716,559	16,942,950
2009 - 10	3,005	3,447	3,838	2010	2,452	2,799	3,099	2010	14,658,388	16,133,913	17,397,030
2010 - 11	3,090	3,528	3,948	2011	2,513	2,860	3,161	2011	15,007,769	16,499,166	17,774,167
2011 - 12	3,162	3,603	4,039	2012	2,571	2,915	3,223	2012	15,393,533	16,879,983	18,202,463
2012 - 13	3,232	3,702	4,131	2013	2,638	2,986	3,299	2013	15,757,977	17,261,436	18,627,485
2013 - 14	3,320	3,783	4,249	2014	2,695	3,044	3,362	2014	16,098,941	17,621,408	19,016,207
2014 - 15	3,391	3,864	4,344	2015	2,755	3,104	3,424	2015	16,447,962	17,981,314	19,398,083
2015 - 16	3,462	3,939	4,437	2016	2,810	3,161	3,486	2016	16,817,895	18,370,418	19,823,838
2016 - 17	3,527	4,039	4,525	2017	2,876	3,233	3,558	2017	17,160,817	18,744,186	20,210,546
2017 - 18	3,608	4,126	4,632	2018	2,941	3,298	3,628	2018	17,540,219	19,129,686	20,631,709
2018 - 19	3,686	4,217	4,734	2019	3,009	3,367	3,701	2019	17,930,178	19,539,698	21,065,767
2019 - 20	3,765	4,307	4,839	2020	3,071	3,431	3,771	2020	18,348,908	19,977,370	21,552,290
2020 - 21	3,838	4,416	4,940	2021	3,147	3,513	3,856	2021	18,753,186	20,408,388	22,011,445
2021 - 22	3,933	4,511	5,065	2022	3,217	3,585	3,934	2022	19,161,057	20,837,354	22,479,811
2022-2023	4,015	4,605	5,177	2023	3,281	3,656	4,006	2023	19,543,672	21,258,006	22,920,966
2023-2024	4,092	4,686	5,282	2024	3,338	3,717	4,064	2024	19,936,295	21,683,180	23,352,014
2024-2025	4,157	4,789	5,369	2025	3,410	3,796	4,146	2025	20,295,933	22,086,886	23,769,925
2025-2026	4,241	4,877	5,483	2026	3,467	3,861	4,209	2026	20,639,435	22,475,651	24,163,368

**Figure 8-2
Total Requirements**



**Figure 8-3
Total Winter Peak**

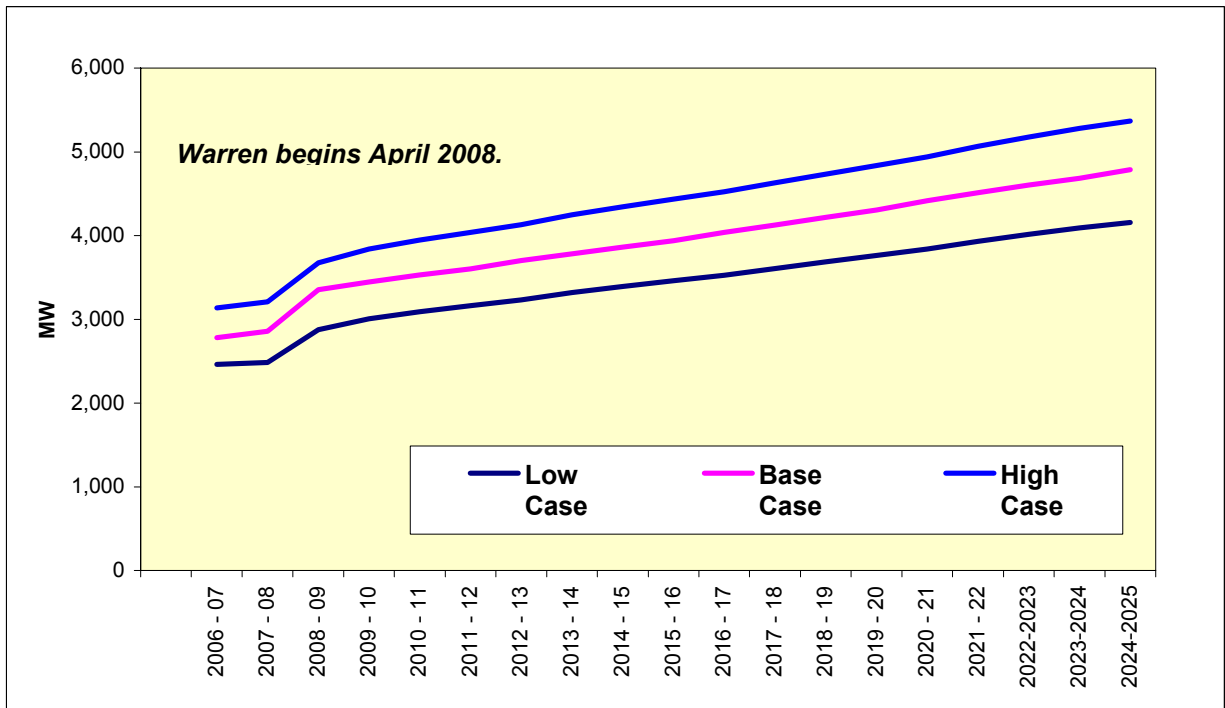


Figure 8-4
Total Summer Peak

