

City and Borough of Sitka

2005 Electric System Load Forecast

FINAL REPORT
September 6, 2005

Prepared for

City and Borough of Sitka
Municipal Electric Department
105 Jarvis Street
Sitka, Alaska 99835

by



City and Borough of Sitka 2005 Electric System Load Forecast

Final Report

Introduction and Overview

A 20-year annual forecast of electric customers, energy requirements and system peak demand has been developed for the City and Borough of Sitka (City) Electric Department. The forecast essentially updates forecasts previously prepared for the City, using a similar approach and similar methodologies. The number of customers and total energy sales have been forecasted for each of the City's customer classifications on an annual basis for the period 2005 through 2025.¹ Four alternative growth scenarios, medium, high, low, and high electric heat were developed. In addition, a forecast of interruptible energy sales has also been developed.

Since the City's last load forecast in 2001, total annual energy sales and energy requirements have increased every year. The total number of electric accounts has increased from 4,695 in 2000 to 4,980 in 2004, representing an average annual increase of 1.5%. Annual energy consumption per customer, however, has decreased somewhat since 2000 for residential and commercial customer classifications. It is believed that the reduction in electricity consumption per customer is due to generally milder than normal weather conditions in recent years, a continuing reduction in the use of electric space heat and a gradual slowdown in overall economic activity in the area.

In the year ended June 30, 2004, the City's total energy requirements were 103,048 MWh and total energy sales were 94,635 MWh. Following the closure of the Alaska Pulp Company (APC) mill in 1993, total energy requirements decreased somewhat and remained relatively constant between 1994 and 2001 at which time they began to increase. Peak demand also remained relatively constant over the past ten years but increased significantly in 2004 to 19.8 MW. The all time annual system peak demand was 22.0 MW in 1993 and was in the range of 17.5 MW to 18.1 MW each year between 1998 and 2003. The high demand in 1993 is attributed in part, to the partial requirements demand of APC on the City system.

The 2005 forecast has been developed using an energy demand model that independently projects customers and energy consumption for each of the City's electric customer classifications for each year of a 20-year forecast period, 2005 through 2025. Although relationships between the number of customers and several variables were considered, the most significant correlations were established with population. Similarly, the number of commercial and public authority customers appears to be closely related to the number of residential customers when compared to the other variables evaluated.

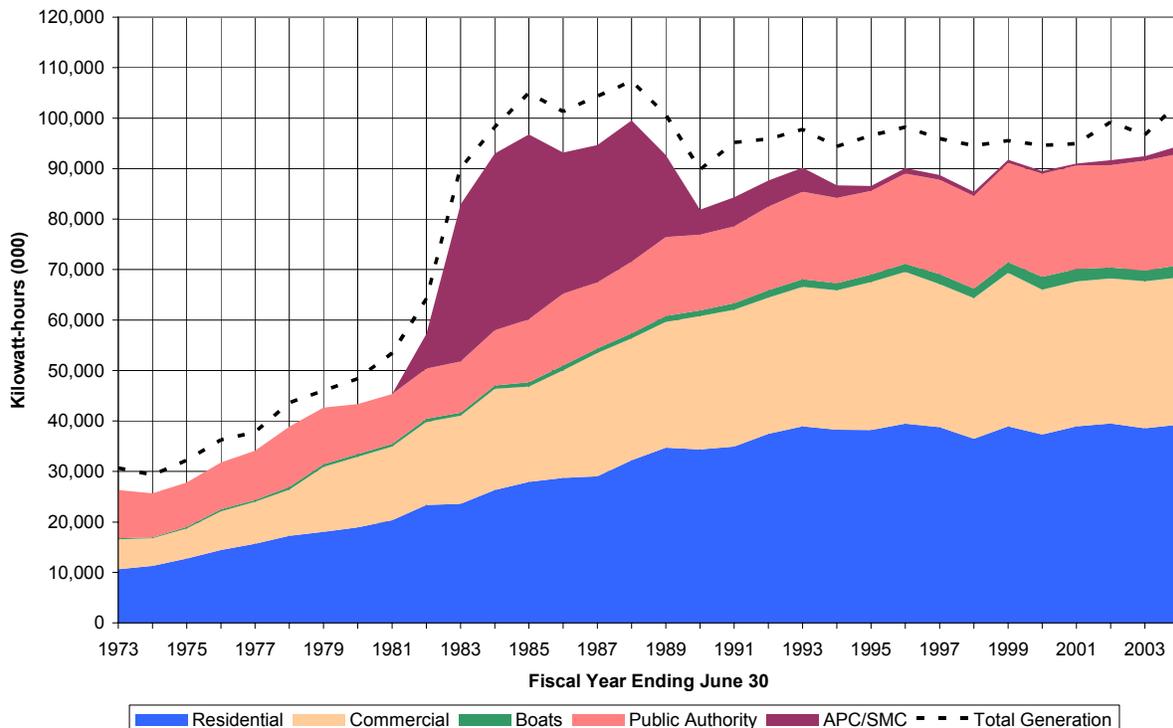
¹ All references to annual totals are for years ending June 30, based on the City's fiscal year.

Although a slight increase was noted in 2004, energy use per residential customer has decreased steadily since 1993, the year in which the City last raised its electric rates. The increase in the cost of electricity to consumers in 1993 is considered to have contributed to a price-induced reduction in electricity consumption. It is also expected that relatively mild winter weather conditions the past few years caused lower energy consumption due to the significant amount of electric space heating in Sitka. Prior to 1993, residential energy consumption per customer increased steadily over a 20-year period. Average annual energy consumption per Boat customer account has continued to increase over the past ten years.

Average energy consumption per commercial account has also decreased somewhat in recent years but has remained relatively constant overall. Public Authority customers have also shown a reduction in consumption over the past 20 years, but over the past ten years, the average energy consumption per Public Authority account has remained relatively constant. In 1996 the City established a Public Safety customer class that remained in effect through 2003.

Total energy sales by customer class for the years 1973 through 2004 are shown in Figure 1. As can be seen in Figure 1, a significant amount of energy was sold to APC between 1982 and 1990. The number of customer accounts and energy consumption per customer for the period 1973 through 2004 are shown in Table 7. Historical annual energy sales by customer classification, total system energy requirements and annual energy losses for the same period are shown in Table 8. Table 8A shows peak demand, average annual demand and annual loadfactors for the City's electric system for the same period. All three of these tables are located following the text of this report.

Figure 1
City and Borough of Sitka
Historical (1973-2004) Energy Sales by Customer Class and Total Generation



Customer Account Forecast

The forecasted number of residential customers is based primarily on the relationship between population and the number of electric customers, with acknowledgement of recent trends in the number of electric customers served. Population projections for the City and Borough have been developed in the past by the State of Alaska Department of Labor (DOL), but DOL has in recent years not provided any new long-term population projections for individual boroughs and cities. DOL's last detailed long-term projection was prepared in 1998 and the results were presented in the report, *Alaska Population Projections: 1998-2018*. A new forecast covering the period 2005-2029 was recently prepared by DOL but the results have only been initially released for the state population in total. This new DOL forecast projects the total state population to increase at an average annual basis of 0.8% for the middle scenario. The low and high scenarios indicate average annual population growth of 0.4% and 1.2%, respectively.

The 1998 DOL population projections indicated a gradual but continual decrease in the population of the City and Borough over the 20 year period 1998-2018. In the 1998 DOL projection, the 2003 population was projected to be 8,590 for the middle forecast scenario with a forecasted range of between 8,375 for the low growth scenario and 8,979 for the high growth scenario. In 2004, the actual estimated population of the City and Borough was 8,805 indicating that the actual population is approximately midway between the 1998 DOL projected middle and high forecast.

In 1993, the population of Sitka was nearly 9,000. Following closure of the pulp mill, the population declined to approximately 8,700 in 1997 before stabilizing and beginning a slight increase. Between 1997 and 2004, the population increased at an average annual rate of approximately 0.20%. Over the 23 year period, 1981 to 2004, the City's population increased by 822, representing a 10.3% overall increase and 0.43% average annual growth.

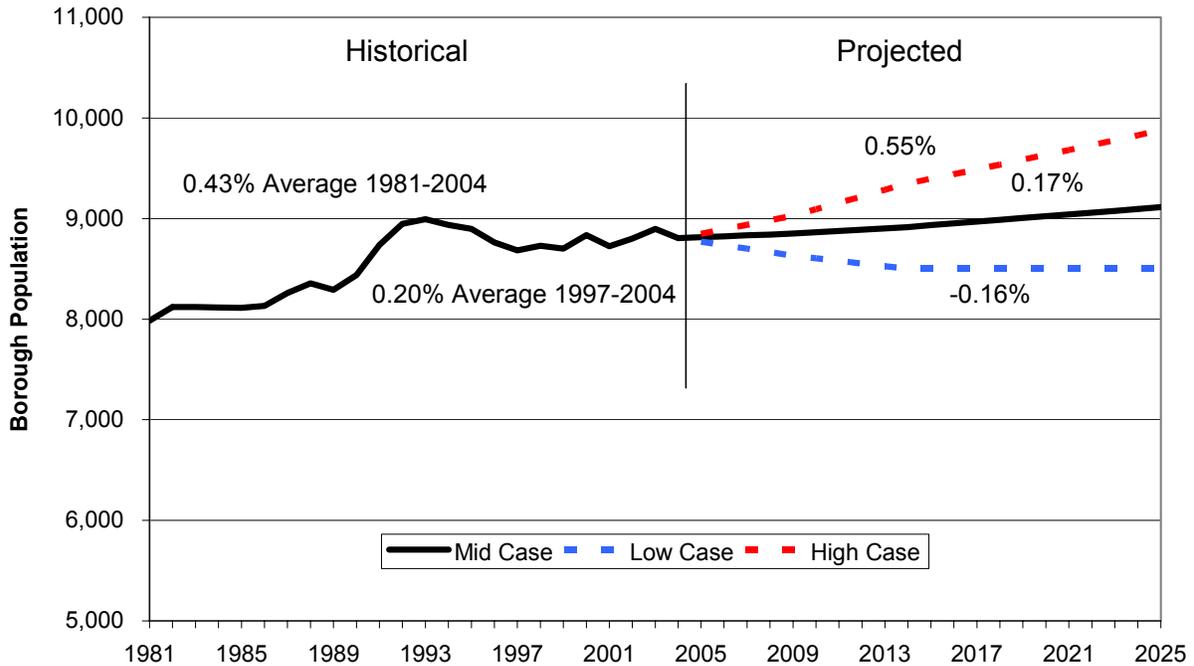
Since the revised DOL City and Borough forecasts were not available for use in the 2005 Load Forecast, it has been necessary to develop an alternative population projection to serve as the basis for the number of future electric consumers in Sitka. Based on recent trends, discussions with the City's Planning Director and other factors, it has been assumed that the City and Borough population will increase at an average annual rate of 0.17% for the medium growth scenario through 2025. This results in an overall population increase of 308 by 2025 representing a total increase of 3.5% over the current population. Alternative average annual population growth rates of -0.16% and 0.55% have been assumed for the low and high scenarios, respectively.

The population projections used in the forecast are presented in Table 1 and Figure 2, below. Historical population from 1981 to 2004 is also shown in Figure 2.

Table 1
Forecasted Population Used in Load Forecast
City and Borough of Sitka

	Forecasted Population		
	Medium	Low	High
2004 (Estimated Actual)	8,805	8,805	8,805
2005	8,814	8,770	8,849
2010	8,863	8,604	9,090
2015	8,933	8,500	9,395
2020	9,023	8,500	9,632
2025	9,113	8,500	9,875
Average Annual Growth Rates			
2005 - 2009	0.1%	-0.4%	0.5%
2009 - 2014	0.2%	-0.3%	0.7%
2015 - 2025	0.2%	0.0%	0.5%
2005 - 2025	0.17%	-0.16%	0.55%

Figure 2
City and Borough of Sitka
Historical and Projected Population
and Average Annual Growth Rates in Population



The number of residential accounts has been projected based on the calculated relationship between customers served, population and recent trends in the number of residential accounts served. The number of electric commercial accounts served by the City has historically been related to the number of residential accounts. Between 2000 and 2004, there were approximately 6.2 residential accounts per commercial account. The forecast of commercial, public authority and boats customer accounts has been developed as a function of residential customers.

Forecasted number of customer accounts, by customer classification are shown in Table 9 for the medium, high and low growth scenarios. Since the number of residential customers is projected relative to forecasted population, there is a projected decrease in the number of customers served for the low growth scenario and a slight increase for the medium and high growth scenario. The projected number of customers for the medium scenario are summarized in Table 2. As can be seen in Table 2, the total number of customer accounts served by the City is projected to increase at an average annual rate of 0.5% per year. A more detailed presentation of the number of customer accounts is shown in Table 9.

**Table 2
Forecasted Total Number of Customer Accounts
(Medium Growth Scenario)**

Forecast Year	Customer Classification				Total
	Residential	Commercial	Boats	Public Authority	
2004 (Actual)	3,473	563	746	192	4,974
2005	3,494	568	761	193	5,016
2010	3,584	588	816	200	5,188
2015	3,653	603	853	206	5,315
2020	3,710	615	880	211	5,416
2025	3,761	625	900	216	5,502
Average Annual Growth Rates					
2005-2009	0.5%	0.7%	1.5%	0.8%	0.7%
2009-2014	0.4%	0.5%	1.0%	0.6%	0.5%
2014-2019	0.3%	0.4%	0.6%	0.5%	0.3%
2005-2025	0.4%	0.5%	0.8%	0.6%	0.5%

Energy Consumption per Customer

Establishing a good relationship between energy consumption and variables such as weather conditions, per capita income, inflation and others, was not possible. Energy consumption is most likely affected by these variables, but based on the City's experience in recent years, no consistent relationship can be determined. For purposes of the forecast, energy consumption per customer has been assumed to be based on an average of consumption in recent years with assumed explicit changes applied, primarily related to assumed average weather conditions and temperatures.

In addition to the medium, low and high load growth scenarios, a fourth forecast scenario has been developed to provide for increasing electric heating loads due to continued high fuel oil prices. Following completion of the Green Lake hydroelectric project in the mid-1980's and until the early 1990's, new residential construction in Sitka often employed electric space heating. Some of this electric space heating was supplanted with fuel-oil based Monitor type stoves, which is reflected in the significant reduction in per customer residential electric energy consumption since 1993. With the current high price of fuel oil, the potential exists for a return to the use of electricity for space heating and a corresponding increase in overall electric energy use. For the electric heat scenario, it is assumed that energy consumption per customer increases to a level similar to that experienced in the early 1990's when the use of electric heat in Sitka was more prominent. The electric heat scenario uses the forecast of customer accounts and other assumptions consistent with the high growth scenario.

Base consumption amounts and assumed changes in consumption in the future are shown in Table 3. Forecasted energy consumption per customer for each customer class through the forecast period is shown in Table 9.

**Table 3
Annual Energy Consumption per Customer Account and
Assumed Future Changes in Consumption**

	Customer Classification			
	Residential	Commercial	Boats	Public Authority
Annual kWh per Customer:				
Actual 2004	11,317	51,690	3,297	114,935
Base Forecast Amount (2005)	11,510	52,680	3,210	117,130
Assumed Average Annual Change:				
Medium Growth Scenario				
2005-2009	0.0%	-1.0%	1.0%	-1.0%
2009-2014	0.2%	0.5%	0.5%	0.5%
2014-2024	0.5%	0.5%	0.5%	0.5%
High Growth Scenario				
2005-2009	0.5%	0.5%	0.5%	0.0%
2009-2014	1.0%	1.0%	1.0%	1.0%
2014-2024	1.0%	1.0%	1.0%	1.0%
Low Growth Scenario				
2005-2009	-1.5%	-1.5%	-1.5%	-1.5%
2009-2014	0.0%	0.0%	0.0%	0.0%
2014-2024	0.0%	0.0%	0.0%	0.0%
Electric Heat Growth Scenario				
2005-2009	3.0%	3.0%	0.5%	0.0%
2009-2014	1.0%	1.0%	1.0%	1.0%
2014-2024	1.0%	1.0%	1.0%	1.0%

Total Energy Sales

Based on the forecasted number of customers and the projected electricity use per customer account, total annual energy sales have been forecasted. The results of the forecast for each of the customer classes and for each year of the forecast period are shown in Table 10 and are summarized for selected years in Table 4. As can be seen in Table 4, total energy sales are forecasted to be 97,377 MWh in 2005 for the medium growth scenario. This amount is approximately 2,700 MWh more than was sold in 2004, representing an increase of 2.9%. Much of the increase between actual sales in 2004 and forecasted sales in 2005 is due to the assumption of a return to normal weather conditions in 2005 following slightly warmer winters in 2003 and 2004. In addition, somewhat increased sales at the Sawmill Cove industrial site are also estimated in 2005.

Total electricity consumption at the Sawmill Cove industrial site (former site of the Alaska Pulp Company pulp mill) was approximately 1,500 MWh in 2004. The City has indicated that this site is to be developed as an industrial complex with the Sitka Beverage Corporation (SBC) being the first industrial load. SBC’s energy requirements were projected to increase substantially a few years ago but have not done so. In 2004, the load was approximately 350 kW at an assumed annual loadfactor of 50%. Power requirements of SBC are estimated to increase to approximately 500 kW in 2005, 600 kW in 2006 and 800 kW in 2009. At a 50% loadfactor, this would result in annual energy sales of 2,190 MWh in 2005, 2,628 MWh in 2006 and 3,504 MWh in 2009. Alternative high and low forecasts of the SMC load are also included. For these cases, the SMC load is forecasted to be 500 kW and 1,000 kW in 2009 for the low and high scenarios, respectively. The total estimated energy requirements at the Sawmill Cove site for each year of the forecast period are shown in Table 10 in the column labeled “SMC”.

**Table 4
Forecasted Total Retail Energy Sales**

	Total Energy Sales (MWh)			
	Medium	High	Low	Elec. Heat
2004 (Estimated Actual)	94,635	94,635	94,635	94,635
2005	97,377	97,827	96,928	97,830
2010	100,075	103,910	94,204	113,420
2015	104,443	112,896	95,700	123,180
2020	109,251	122,819	96,481	133,720
2025	113,990	133,039	97,027	144,790
Average Annual Growth Rates				
2005 - 2009	0.5%	1.5%	-0.8%	3.3%
2009 - 2014	0.8%	1.7%	0.3%	1.7%
2014 - 2025	0.9%	1.7%	0.2%	1.7%
2005 - 2025	0.8%	1.6%	0.0%	2.0%

Total Energy Requirements

The City’s total energy requirements are the sum of total energy sales, non-billed public authority use and energy losses. Non-billed public authority use is approximately 1,500 MWh per year at the present time. It is not expected that this amount will vary significantly in the future. For the purpose of the forecast, non-billed public authority use is assumed to increase annually by 0.5% for the medium, high and low load growth cases.

Energy losses experienced by the City in the years 1999 through 2004 have varied between 2.3% and 6.5% of total energy requirements. Prior to 1999, energy losses were typically in excess of 6.0% of total energy requirements. It is not known if the significant decrease noted in recent years is due to accounting changes or other factors. For the purpose of the load forecast, energy losses are assumed to be 6.0%, 7.0% and 5.0% of total energy requirements for the medium, high and low load growth scenarios.

Forecasted total energy requirements are shown in Table 10 and are summarized in Table 5. Historical and forecasted energy requirements are shown in Figure 3 with average annual growth rates over the periods 1973–2004 and 2005–2025 indicated also.

Table 5
Forecasted Total Energy Requirements

	Total Energy Requirements (MWh)			
	Medium	High	Low	Elec. Heat
2004 (Estimated Actual)	103,048	103,048	103,048	103,048
2005	105,190	106,800	103,610	106,800
2010	108,100	113,380	100,780	123,610
2015	112,790	123,080	102,400	134,150
2020	117,940	133,790	103,260	145,530
2025	123,030	144,830	103,880	157,470
Average Annual Growth Rates				
2005 - 2009	0.5%	1.5%	-0.8%	3.3%
2009 - 2014	0.8%	1.7%	0.3%	1.6%
2014 - 2025	0.9%	1.6%	0.2%	1.6%
2005 - 2025	0.8%	1.6%	0.0%	2.0%

Figure 3
Historical and Projected Total Energy Requirements (1973-2025)

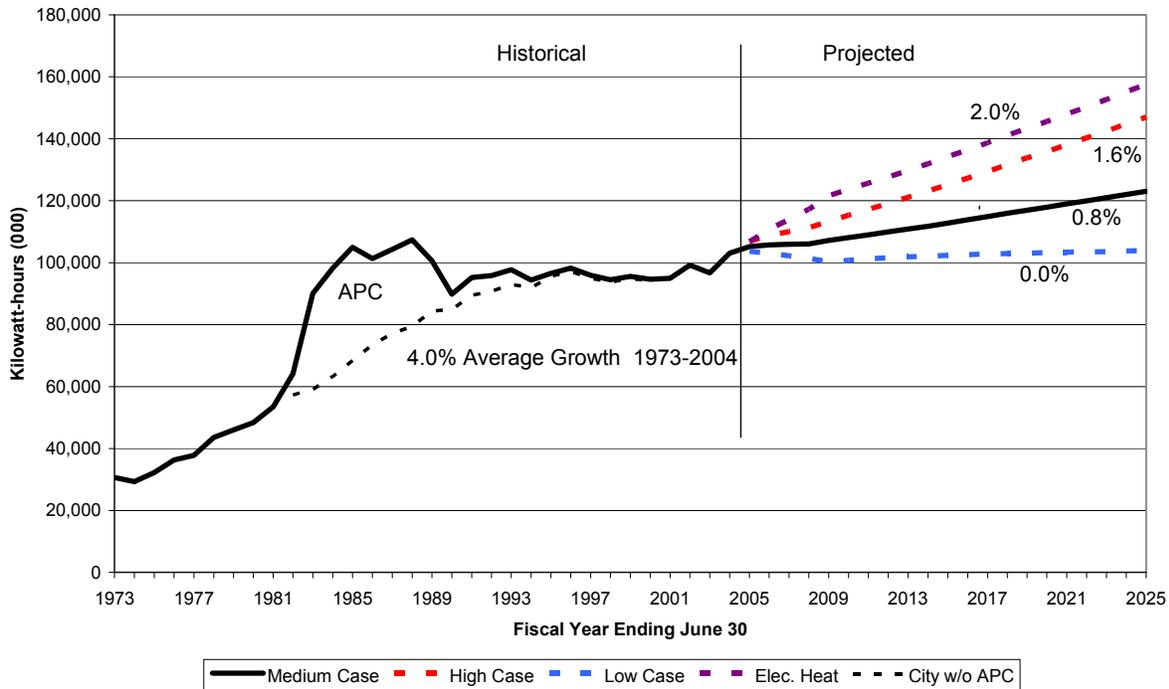


Figure 3 shows that average annual load growth experienced by the City was 4.0% over the period 1973 through 2004. Prior to 1995, average annual load growth was significantly higher. The results of the forecast indicate average annual load growth over the next 20 years of 0.8% for the medium growth scenario, 1.6% average annual load growth for the high scenario, 0.0% average growth in loads for the low growth scenario and 2.0% average annual load growth for the electric heat scenario.

The 2005 Load Forecast indicates similar growth as forecasted in the 2001 Load Forecast, 0.8% as compared to 0.9% average annual growth for the medium scenario.

Peak Demand

Peak demand of the City’s electric system has been forecasted based on the forecast of total energy requirements and an assumed annual load factor. The load factor is the ratio of peak demand to average demand. In recent years, the City’s annual load factor has been relatively consistent at approximately 60%. For the purposes of the forecast, the annual load factor has been assumed to be 61% for the medium growth scenario, 65% for the low growth scenario and 56% for the high and electric heat scenarios. The forecasted peak demand for each year is shown in Table 10 for the four growth scenarios and is summarized in the following table.

Table 6
Forecasted Peak Demand (kW)

	Peak Demand (kW)			
	Medium	High	Low	Elec. Heat
2004 (Estimated Actual)	19.8	19.8	19.8	19.8
2005	19.7	21.8	18.8	21.8
2010	20.2	23.1	18.3	25.2
2015	21.1	25.1	18.6	27.3
2020	22.1	27.3	18.7	29.7
2025	23.0	29.5	18.8	32.1
Average Annual Growth Rates				
2005 - 2009	0.5%	1.5%	-0.8%	3.3%
2009 - 2014	0.8%	1.7%	0.3%	1.6%
2014 - 2025	0.9%	1.6%	0.2%	1.6%
2005 - 2025	0.8%	1.6%	0.0%	2.0%

Interruptible Energy Sales

The City has recently established an interruptible energy sales program to sell surplus hydroelectric generation to government buildings, and potentially industrial facilities, to supplant the use of fuel oil for space and water heating. The price of electricity sold through this program will be tied to the price of fuel oil in Sitka. At the present time, the City Electric Department has identified six interruptible energy customers, primarily schools and other municipal facilities, that are expected to begin receiving service within the next three years. In total, it is estimated that these electric customers can use approximately 8,000 MWh per year of electric energy purchased under the interruptible energy program. Other municipal and commercial facilities have also been identified that could potentially purchase interruptible electric energy in the future.

The amount of energy available to serve this interruptible load is dependent on the available hydroelectric generation in any given year. As with all hydroelectric systems, the City's generation potential varies from year to year depending on local precipitation. It is presently estimated that the average annual energy generation capability of the City's hydroelectric system is 124,000 MWh. This generation capability is estimated to vary between 85,000 MWh in extremely dry years to 135,000 MWh in very wet years. Further, the City has indicated that a third turbine could potentially be installed at the Blue Lake hydroelectric project that would produce about 6,000 MWh on an average annual basis. In extremely wet years, it is estimated that the third turbine could generate an additional 25,000 MWh whereas in dry years there would be no additional energy generation.

An estimate of total interruptible energy sales has been developed based on the City's estimate of potential interruptible municipal and industrial loads and the estimated amount of hydroelectric generation surplus to the needs of the City's firm energy service customers. As the City's firm

energy loads increase over time, the amount of surplus hydroelectric generation available for interruptible sales will decrease. Further, the amount of surplus hydroelectric generation available in any given year will vary significantly due to seasonal precipitation levels at the time. The estimated interruptible energy sales are shown in Table 11. In summary, interruptible energy sales are estimated to range between zero in low water years to as high as 20,000 MWh in wet years. Under average water conditions with medium retail load growth and assuming the third turbine at Blue Lake is installed in 2012, interruptible energy sales are estimated to increase from 4,168 MWh in 2006 to 20,025 MWh in 2012. After 2012, interruptible energy sales are estimated to decrease as retail loads increase and use a greater portion of the available hydroelectric generation capability.

Table 7

City and Borough of Sitka**Historical Number of Customer Accounts and Usage Per Customer Account**

Fiscal Year	Number of Accounts							Average usage per Customer Account (kWh)						
	Residential	Commercial	Res/Comm Ratio	Boats	Public Authority	Public Safety	Total	Annual % Change	Residential	Commercial	Boats	Public Authority	Public Safety	Total
1973	1,457	216	6.75	153	40	-	1,873		7,308	27,214	1,489	238,838	-	14,047
1974	1,560	221	7.06	160	44	-	1,992	6.4%	7,254	24,602	1,316	197,394	-	12,875
1975	1,666	231	7.21	189	51	-	2,144	7.6%	7,664	25,696	1,557	172,662	-	12,967
1976	1,748	244	7.16	221	53	-	2,273	6.0%	8,248	31,425	1,971	174,911	-	13,985
1977	1,857	252	7.37	236	55	-	2,407	5.9%	8,428	33,005	1,623	177,207	-	14,164
1978	2,015	259	7.78	297	58	-	2,637	9.5%	8,562	35,392	1,705	205,455	-	14,731
1979	2,105	282	7.46	325	63	-	2,782	5.5%	8,577	45,457	1,677	178,357	-	15,330
1980	2,200	298	7.38	334	65	-	2,904	4.4%	8,611	46,959	1,560	152,109	-	14,924
1981	2,316	331	7.00	330	72	-	3,056	5.2%	8,776	44,159	1,591	136,644	-	14,825
1982	2,436	336	7.25	333	70	-	3,182	4.1%	9,593	48,922	1,945	141,655	-	15,828
1983	2,492	369	6.75	347	71	-	3,286	3.3%	9,460	47,407	1,597	143,430	-	15,766
1984	2,540	390	6.51	350	79	-	3,366	2.4%	10,367	51,387	1,844	138,461	-	17,221
1985	2,583	411	6.28	426	90	-	3,516	4.5%	10,816	45,948	1,961	139,051	-	17,112
1986	2,697	419	6.44	462	122	-	3,706	5.4%	10,648	50,898	2,110	116,448	-	17,598
1987	2,784	431	6.46	482	131	-	3,834	3.5%	10,432	56,642	1,954	99,577	-	17,589
1988	2,842	431	6.59	475	135	-	3,890	1.4%	11,333	56,078	2,135	104,930	-	18,398
1989	2,856	418	6.83	453	166	-	3,900	0.3%	12,154	59,656	2,609	94,016	-	19,600
1990	2,898	417	6.95	535	160	-	4,017	3.0%	11,861	63,306	2,134	93,904	-	19,153
1991	2,952	425	6.95	556	154	-	4,094	1.9%	11,835	63,816	2,273	98,930	-	19,188
1992	2,990	431	6.94	590	156	-	4,174	2.0%	12,525	62,549	2,540	106,165	-	19,758
1993	2,952	425	6.95	589	157	-	4,130	-1.1%	13,197	64,992	2,565	110,200	-	20,676
1994	3,010	421	7.15	547	144	-	4,129	0.0%	12,720	65,573	2,535	117,395	-	20,388
1995	3,044	438	6.95	531	139	-	4,159	0.7%	12,544	66,888	2,900	119,237	-	20,581
1996	3,117	440	7.08	557	154	4	4,279	2.9%	12,659	68,339	2,930	115,986	54,243	20,855
1997	3,160	456	6.93	651	153	3	4,430	3.5%	12,272	62,090	3,044	122,392	60,156	19,861
1998	3,193	472	6.76	662	156	3	4,493	1.4%	11,425	59,022	2,853	117,698	60,246	18,868
1999	3,218	506	6.36	690	171	1	4,592	2.2%	12,104	60,045	3,074	115,032	137,400	19,873
2000	3,243	516	6.28	757	172	1	4,695	2.2%	11,508	55,633	3,326	118,849	137,960	18,982
2001	3,333	534	6.24	747	170	1	4,791	2.0%	11,681	53,727	3,286	120,730	152,680	18,942
2002	3,409	570	5.98	699	179	1	4,864	1.5%	11,596	50,357	3,092	113,360	145,600	18,675
2003	3,484	560	6.22	685	185	1	4,921	1.2%	11,070	52,006	3,036	117,753	260,367	18,657
2004	3,473	563	6.17	746	192	-	4,980	1.2%	11,317	51,690	3,297	114,935	-	18,696
Compound Annual Growth Rates (Unless Marked Average):								Average						
1973-2004	2.8%	3.1%	-0.3%	5.2%	5.2%		3.2%	3.2%	1.4%	2.1%	2.6%	-2.3%		0.9%
1973-1993	3.6%	3.4%	0.1%	7.0%	7.1%		4.0%	4.1%	3.0%	4.4%	2.8%	-3.8%		2.0%
1993-2004	1.5%	2.6%	-1.1%	2.2%	1.8%		1.7%	1.5%	-1.4%	-2.1%	2.3%	0.4%		-0.9%
1998-2004	1.4%	3.0%	-1.5%	2.0%	3.5%		1.7%	1.7%	-0.2%	-2.2%	2.4%	-0.4%		-0.2%

Table 8
City and Borough of Sitka
Historical Energy Sales, Total Requirements and Losses
(kilowatt-hours)

Fiscal Year	Residential	Commercial	Boats	Public Authority	Public Safety	Total Retail	Annual % Change	APC/SMC	Interruptible Sales	Total Sales	PA - Nonbill	Losses	Total Requirements	Loss %
1973	10,647,500	5,878,143	227,791	9,553,520		26,306,954				26,306,954		4,346,746	30,653,700	14.2%
1974	11,315,790	5,437,106	210,480	8,685,340		25,648,716	-2.5%			25,648,716		3,660,084	29,308,800	12.5%
1975	12,768,138	5,935,735	294,250	8,805,740		27,803,863	8.4%			27,803,863		4,401,237	32,205,100	13.7%
1976	14,417,801	7,667,679	435,571	9,270,277		31,791,328	14.3%			31,791,328		4,462,772	36,254,100	12.3%
1977	15,650,544	8,317,159	382,960	9,746,410		34,097,073	7.3%			34,097,073		3,673,927	37,771,000	9.7%
1978	17,253,384	9,166,472	506,411	11,916,385		38,842,652	13.9%			38,842,652		4,751,348	43,594,000	10.9%
1979	18,054,525	12,818,950	545,180	11,236,489		42,655,144	9.8%			42,655,144		3,316,556	45,971,700	7.2%
1980	18,943,385	13,993,874	521,013	9,887,091		43,345,363	1.6%			43,345,363		5,004,037	48,349,400	10.3%
1981	20,324,848	14,616,568	525,157	9,838,403		45,304,976	4.5%			45,304,976		8,135,824	53,440,800	15.2%
1982	23,368,046	16,437,777	647,625	9,915,842		50,369,290	11.2%	6,900,000		57,269,290		6,868,310	64,137,600	10.7%
1983	23,573,597	17,493,123	554,146	10,183,532		51,804,398	2.8%	31,109,600		82,913,998		7,186,902	90,100,900	8.0%
1984	26,333,102	20,040,862	645,320	10,938,427		57,957,711	11.9%	35,036,400		92,994,111		5,229,889	98,224,000	5.3%
1985	27,936,606	18,884,763	835,230	12,514,602		60,171,201	3.8%	36,607,200		96,778,401		8,224,599	105,003,000	7.8%
1986	28,718,308	21,326,412	974,641	14,206,699		65,226,060	8.4%	27,937,800		93,163,860		8,151,140	101,315,000	8.0%
1987	29,043,644	24,412,603	941,876	13,044,581		67,442,704	3.4%	27,190,800		94,633,504		9,642,496	104,276,000	9.2%
1988	32,209,398	24,169,740	1,014,325	14,165,572		71,559,035	6.1%	27,963,600		99,522,635		7,816,665	107,339,300	7.3%
1989	34,710,595	24,936,120	1,181,668	15,606,679		76,435,062	6.8%	16,258,800		92,693,862		7,917,138	100,611,000	7.9%
1990	34,373,267	26,398,742	1,141,738	15,024,583		76,938,330	0.7%	4,905,600		81,843,930	664,622	7,282,748	89,791,300	8.1%
1991	34,935,593	27,121,821	1,263,561	15,235,263		78,556,238	2.1%	5,737,400		84,293,638	1,369,132	9,519,230	95,182,000	10.0%
1992	37,451,051	26,958,569	1,498,453	16,561,759		82,469,832	5.0%	5,132,400		87,602,232	1,544,472	6,684,536	95,831,240	7.0%
1993	38,956,991	27,621,495	1,510,874	17,301,455		85,390,815	3.5%	4,785,912		90,176,727	1,356,274	6,178,918	97,711,919	6.3%
1994	38,288,017	27,606,075	1,386,858	16,904,829		84,185,779	-1.4%	2,485,564		86,671,343	1,608,195	6,069,363	94,348,901	6.4%
1995	38,184,665	29,296,821	1,540,057	16,573,953		85,595,496	1.7%	961,581		86,557,077	2,086,615	7,894,717	96,538,409	8.2%
1996	39,458,367	30,069,034	1,632,084	17,861,827	216,970	89,238,282	4.3%	1,074,420		90,312,702	1,036,839	6,857,240	98,206,781	7.0%
1997	38,779,249	28,313,214	1,981,768	18,725,998	180,468	87,980,697	-1.4%	904,915		88,885,612	947,659	6,096,265	95,929,536	6.4%
1998	36,481,297	27,858,302	1,888,963	18,360,839	180,737	84,770,138	-3.6%	789,265		85,559,403	911,692	8,028,575	94,499,670	8.5%
1999	38,950,365	30,382,830	2,121,381	19,670,460	137,400	91,262,436	7.7%	629,585		91,892,021	988,605	2,646,596	95,527,222	2.8%
2000	37,321,128	28,706,403	2,517,425	20,441,975	137,960	89,124,891	-2.3%	506,274		89,631,165	1,480,197	3,518,047	94,629,409	3.7%
2001	38,932,335	28,690,283	2,454,601	20,524,065	152,680	90,753,964	1.8%	399,516		91,153,480	1,493,985	2,267,174	94,914,639	2.4%
2002	39,530,730	28,703,289	2,161,435	20,291,474	145,600	90,832,528	0.1%	969,844		91,802,372	1,577,104	5,825,030	99,204,506	5.9%
2003	38,569,146	29,123,395	2,079,515	21,784,389	260,367	91,816,812	1.1%	914,387		92,731,199	1,723,933	2,201,200	96,656,332	2.3%
2004	39,303,610	29,101,299	2,459,212	22,067,517	178,659	93,110,297	1.4%	1,524,713		94,635,010	1,723,855	6,689,113	103,047,978	6.5%

Compound Annual Growth Rates (Unless Marked Average):						Average				Average				
1973-2004	4.3%	5.3%	8.0%	2.7%		4.2%	4.3%			4.2%		1.4%	4.0%	8.2%
1973-1993	6.7%	8.0%	9.9%	3.0%		6.1%	6.2%			6.4%		1.8%	6.0%	9.6%
1993-2004	0.1%	0.5%	4.5%	2.2%		0.8%	1.1%			0.4%		0.7%	0.5%	5.5%
1998-2004	1.2%	0.7%	4.5%	3.1%	-0.2%	1.6%	0.9%	11.6%		1.7%	11.2%	-3.0%	1.5%	4.6%

Table 8A
City and Borough of Sitka
 Historical Peak Loads and Load Factor
 (kilowatts)

Fiscal Year	City	System	Total Generation (Average kW)	Less: Sales to APC (Average kW)	Net Retail Generation (Average kW)	System Loadfactor	Retail Loadfactor
1973	6,400		3,499	-	3,499	54.7%	54.7%
1974	5,950		3,346	-	3,346	56.2%	56.2%
1975	7,100		3,676	-	3,676	51.8%	51.8%
1976	7,200		4,127	-	4,127	57.3%	57.3%
1977	7,550		4,312	-	4,312	57.1%	57.1%
1978	8,795		4,976	-	4,976	56.6%	56.6%
1979	9,200		5,248	-	5,248	57.0%	57.0%
1980	9,700		5,504	-	5,504	56.7%	56.7%
1981	10,500		6,101	-	6,101	58.1%	58.1%
1982	11,000		7,322	788	6,534	66.6%	59.4%
1983	12,055		10,285	3,551	6,734	85.3%	55.9%
1984	12,343		11,182	3,989	7,193	90.6%	58.3%
1985	14,738		11,987	4,179	7,808	81.3%	53.0%
1986	15,440		11,566	3,189	8,376	74.9%	54.3%
1987	14,636		11,904	3,104	8,800	81.3%	60.1%
1988	16,711		12,220	3,183	9,036	73.1%	54.1%
1989	17,512		11,485	1,856	9,629	65.6%	55.0%
1990	16,785	19,868	10,250	560	9,690	61.1%	57.7%
1991	17,670	20,320	10,866	655	10,211	61.5%	57.8%
1992	16,557	19,829	10,910	584	10,325	65.9%	62.4%
1993	18,972	22,047	11,154	546	10,608	58.8%	55.9%
1994	19,105	19,255	10,770	-	10,770	56.4%	56.4%
1995	19,364	19,364	11,020	-	11,020	56.9%	56.9%
1996	19,938	19,938	11,180	-	11,180	56.1%	56.1%
1997	18,730	18,730	10,951	-	10,951	58.5%	58.5%
1998	17,527	17,527	10,788	-	10,788	61.5%	61.5%
1999	17,732	17,732	10,905	-	10,905	61.5%	61.5%
2000	17,664	17,664	10,773	-	10,773	61.0%	61.0%
2001	17,582	17,582	10,835	-	10,835	61.6%	61.6%
2002	18,113	18,113	11,325	-	11,325	62.5%	62.5%
2003	17,544	17,544	11,034	-	11,034	62.9%	62.9%
2004	19,834	19,834	11,731	-	11,731	59.1%	59.1%
Compound Annual Growth Rates (Unless Marked Average):						Average	Average
1973-2004	3.7%		4.0%		4.0%	63.4%	57.7%
1973-1993	5.6%		6.0%		5.7%	65.3%	56.6%
1993-2004	0.4%		0.5%	-17.1%	0.9%	59.7%	59.5%
1998-2004	2.1%	2.1%	1.4%		1.4%	61.5%	61.5%

Table 9
City and Borough of Sitka
 2005 Electric Load Forecast

Forecasted Number of Customer Accounts and Usage Per Customer Account

MEDIUM CASE

Number of Accounts										Average usage per Customer Account (kWh)					
Fiscal Year	Residential	Commercial	Res/Comm Ratio	Boats	Public Authority	Interrupt. Industr.	Public Safety	Total	% Change	Residential	Commercial	Boats	Public Authority	Public Safety	Total
2004 (Act)	3,473	563	6.17	746	192	-	-	4,974		11,317	51,690	3,297	114,935	-	17,918
2005	3,494	568	6.15	761	193	1	-	5,017	0.9%	11,510	52,680	3,210	117,130	-	18,973
2006	3,514	572	6.14	774	194	3	-	5,057	0.8%	11,510	52,150	3,240	115,960	-	18,841
2007	3,533	576	6.13	786	196	7	-	5,098	0.8%	11,510	51,630	3,270	114,800	-	18,728
2008	3,551	580	6.12	797	197	7	-	5,132	0.7%	11,510	51,110	3,300	113,650	-	18,616
2009	3,568	584	6.11	807	199	7	-	5,165	0.6%	11,510	50,600	3,330	112,510	-	18,528
2010	3,584	588	6.10	816	200	7	-	5,195	0.6%	11,530	50,850	3,350	113,070	-	18,589
2011	3,599	591	6.09	825	201	7	-	5,223	0.5%	11,550	51,100	3,370	113,640	-	18,646
2012	3,613	594	6.08	833	203	7	-	5,250	0.5%	11,570	51,360	3,390	114,210	-	18,727
2013	3,627	597	6.08	840	204	7	-	5,275	0.5%	11,590	51,620	3,410	114,780	-	18,793
2014	3,640	600	6.07	847	205	7	-	5,299	0.5%	11,610	51,880	3,430	115,350	-	18,860
2015	3,653	603	6.06	853	206	7	-	5,322	0.4%	11,670	52,140	3,450	115,930	-	18,958
2016	3,665	606	6.05	859	207	7	-	5,344	0.4%	11,730	52,400	3,470	116,510	-	19,057
2017	3,677	609	6.04	865	208	7	-	5,366	0.4%	11,790	52,660	3,490	117,090	-	19,157
2018	3,688	611	6.04	870	209	7	-	5,385	0.4%	11,850	52,920	3,510	117,680	-	19,255
2019	3,699	613	6.03	875	210	7	-	5,404	0.4%	11,910	53,180	3,530	118,270	-	19,352
2020	3,710	615	6.03	880	211	7	-	5,423	0.4%	11,970	53,450	3,550	118,860	-	19,451
2021	3,721	617	6.03	884	212	7	-	5,441	0.3%	12,030	53,720	3,570	119,450	-	19,553
2022	3,731	619	6.03	888	213	7	-	5,458	0.3%	12,090	53,990	3,590	120,050	-	19,657
2023	3,741	621	6.02	892	214	7	-	5,475	0.3%	12,150	54,260	3,610	120,650	-	19,760
2024	3,751	623	6.02	896	215	7	-	5,492	0.3%	12,210	54,530	3,630	121,250	-	19,864
2025	3,761	625	6.02	900	216	7	-	5,509	0.3%	12,270	54,800	3,650	121,860	-	19,968
Compound Annual Growth Rates (Unless Marked Average):										Average					
2005-2009	0.5%	0.7%	-0.2%	1.5%	0.8%			0.7%	0.7%	0.0%	-1.0%	1.0%	-1.0%	0.0%	
2009-2014	0.4%	0.5%	-0.1%	1.0%	0.6%			0.5%	0.5%	0.2%	0.5%	0.5%	0.5%	0.0%	
2014-2024	0.3%	0.4%	-0.1%	0.6%	0.5%			0.3%	0.4%	0.5%	0.5%	0.5%	0.5%	0.0%	
2005-2025	0.4%	0.5%	-0.1%	0.8%	0.6%			0.5%	0.5%						

Table 9
City and Borough of Sitka
 2005 Electric Load Forecast

Forecasted Number of Customer Accounts and Usage Per Customer Account

HIGH CASE

Number of Accounts										Average usage per Customer Account (kWh)					
Fiscal Year	Residential	Commercial	Res/Comm Ratio	Boats	Public Authority	Interrupt. Industr.	Public Safety	Total	% Change	Residential	Commercial	Boats	Public Authority	Public Safety	Total
2004 (Act)	3,473	563	6.17	746	192	-	-	4,974		11,317	51,690	3,297	114,935	-	-
2005	3,495	568	6.15	761	193	1	-	5,024	1.0%	11,510	52,680	3,210	117,130	-	18,948
2006	3,517	572	6.15	774	194	3	-	5,066	0.8%	11,570	52,940	3,230	117,130	-	18,988
2007	3,538	576	6.14	786	196	7	-	5,109	0.8%	11,630	53,200	3,250	117,130	-	19,045
2008	3,559	580	6.14	797	198	7	-	5,147	0.7%	11,690	53,470	3,270	117,130	-	19,120
2009	3,580	584	6.13	807	200	7	-	5,184	0.7%	11,750	53,740	3,290	117,130	-	19,199
2010	3,601	588	6.12	816	202	7	-	5,220	0.7%	11,870	54,280	3,320	118,300	-	19,399
2011	3,622	592	6.12	825	204	7	-	5,256	0.7%	11,990	54,820	3,350	119,480	-	19,600
2012	3,643	596	6.11	833	205	7	-	5,290	0.6%	12,110	55,370	3,380	120,670	-	19,786
2013	3,665	600	6.11	841	207	7	-	5,326	0.7%	12,230	55,920	3,410	121,880	-	19,991
2014	3,687	604	6.10	849	209	7	-	5,362	0.7%	12,350	56,480	3,440	123,100	-	20,197
2015	3,708	608	6.10	856	211	7	-	5,396	0.6%	12,470	57,040	3,470	124,330	-	20,408
2016	3,729	612	6.09	863	213	7	-	5,430	0.6%	12,590	57,610	3,500	125,570	-	20,621
2017	3,750	616	6.09	870	215	7	-	5,464	0.6%	12,720	58,190	3,540	126,830	-	20,844
2018	3,771	620	6.08	877	217	7	-	5,498	0.6%	12,850	58,770	3,580	128,100	-	21,068
2019	3,791	624	6.08	884	219	7	-	5,531	0.6%	12,980	59,360	3,620	129,380	-	21,295
2020	3,811	627	6.08	891	220	7	-	5,562	0.6%	13,110	59,950	3,660	130,670	-	21,495
2021	3,831	631	6.07	897	222	7	-	5,594	0.6%	13,240	60,550	3,700	131,980	-	21,728
2022	3,851	634	6.07	903	224	7	-	5,625	0.6%	13,370	61,160	3,740	133,300	-	21,955
2023	3,871	637	6.08	909	226	7	-	5,656	0.6%	13,500	61,770	3,780	134,630	-	22,183
2024	3,891	641	6.07	915	228	7	-	5,688	0.6%	13,640	62,390	3,820	135,980	-	22,427
2025	3,911	644	6.07	921	229	7	-	5,718	0.5%	13,780	63,010	3,860	137,340	-	22,644
Compound Annual Growth Rates (Unless Marked Average):										Average					
2005-2009	0.6%	0.7%	-0.1%	1.5%	0.9%			0.8%	0.8%	0.5%	0.5%	0.5%	0.0%	0.0%	
2009-2014	0.6%	0.7%	-0.1%	1.0%	0.9%			0.7%	0.7%	1.0%	1.0%	1.0%	1.0%	1.0%	
2014-2024	0.5%	0.6%	-0.1%	0.8%	0.9%			0.6%	0.6%	1.0%	1.0%	1.0%	1.0%	1.0%	
2005-2025	0.6%	0.6%	-0.1%	1.0%	0.9%			0.6%	0.7%						

Table 9
City and Borough of Sitka
 2005 Electric Load Forecast

Forecasted Number of Customer Accounts and Usage Per Customer Account

LOW CASE

Number of Accounts										Average usage per Customer Account (kWh)					
Fiscal Year	Residential	Commercial	Res/Comm Ratio	Boats	Public Authority	Interrpt. Industr.	Public Safety	Total	% Change	Residential	Commercial	Boats	Public Authority	Public Safety	Total
2004 (Act)	3,473	563	6.17	746	192	-	-	4,974		11,317	51,690	3,297	114,935	-	-
2005	3,493	568	6.15	761	193	1	-	5,022	1.0%	11,510	52,680	3,210	117,130	-	18,951
2006	3,511	572	6.14	774	194	3	-	5,060	0.8%	11,340	51,890	3,160	115,370	-	18,640
2007	3,527	576	6.12	786	195	7	-	5,097	0.7%	11,170	51,110	3,110	113,640	-	18,332
2008	3,541	580	6.11	797	196	7	-	5,127	0.6%	11,000	50,340	3,060	111,940	-	18,047
2009	3,553	584	6.08	807	197	7	-	5,154	0.5%	10,840	49,580	3,010	110,260	-	17,776
2010	3,563	587	6.07	816	198	7	-	5,177	0.4%	10,840	49,580	3,010	110,260	-	17,773
2011	3,572	590	6.05	824	199	7	-	5,198	0.4%	10,840	49,580	3,010	110,260	-	17,775
2012	3,580	593	6.04	832	200	7	-	5,218	0.4%	10,840	49,580	3,010	110,260	-	17,778
2013	3,586	595	6.03	839	201	7	-	5,234	0.3%	10,840	49,580	3,010	110,260	-	17,780
2014	3,591	597	6.02	845	201	7	-	5,247	0.2%	10,840	49,580	3,010	110,260	-	17,768
2015	3,596	599	6.00	850	202	7	-	5,260	0.2%	10,840	49,580	3,010	110,260	-	17,778
2016	3,600	601	5.99	855	202	7	-	5,271	0.2%	10,840	49,580	3,010	110,260	-	17,770
2017	3,604	602	5.99	859	203	7	-	5,281	0.2%	10,840	49,580	3,010	110,260	-	17,778
2018	3,608	603	5.98	863	203	7	-	5,290	0.2%	10,840	49,580	3,010	110,260	-	17,767
2019	3,612	604	5.98	866	203	7	-	5,298	0.2%	10,840	49,580	3,010	110,260	-	17,760
2020	3,615	605	5.98	869	204	7	-	5,306	0.2%	10,840	49,580	3,010	110,260	-	17,771
2021	3,618	606	5.97	872	204	7	-	5,313	0.1%	10,840	49,580	3,010	110,260	-	17,765
2022	3,621	607	5.97	875	204	7	-	5,320	0.1%	10,840	49,580	3,010	110,260	-	17,758
2023	3,624	608	5.96	877	204	7	-	5,326	0.1%	10,840	49,580	3,010	110,260	-	17,755
2024	3,627	609	5.96	879	205	7	-	5,333	0.1%	10,840	49,580	3,010	110,260	-	17,769
2025	3,629	610	5.95	881	205	7	-	5,338	0.1%	10,840	49,580	3,010	110,260	-	17,767
Compound Annual Growth Rates (Unless Marked Average):										Average					
2005-2009	0.4%	0.7%	-0.3%	1.5%	0.5%			0.6%	0.7%	-1.5%	-1.5%	-1.5%	-1.5%	-1.5%	
2009-2014	0.2%	0.4%	-0.2%	0.9%	0.4%			0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	
2014-2024	0.1%	0.2%	-0.1%	0.4%	0.2%			0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	
2005-2025	0.2%	0.4%	-0.2%	0.7%	0.3%			0.3%	0.3%						

Table 9
City and Borough of Sitka
 2005 Electric Load Forecast

Forecasted Number of Customer Accounts and Usage Per Customer Account

ELECTRIC HEAT CASE

Number of Accounts										Average usage per Customer Account (kWh)					
Fiscal Year	Residential	Commercial	Res/Comm Ratio	Boats	Public Authority	Interrpt. Industr.	Public Safety	Total	Annual % Change	Residential	Commercial	Boats	Public Authority	Public Safety	Total
2004 (Act)	3,473	563	6.17	746	192	-	-	4,974		11,317	51,690	3,297	114,935	-	-
2005	3,495	568	6.15	761	193	3	-	5,026	1.0%	11,510	52,680	3,210	117,130	-	20,691
2006	3,517	572	6.15	774	194	7	-	5,070	0.9%	11,860	54,260	3,230	117,130	-	21,132
2007	3,538	576	6.14	786	196	7	-	5,109	0.8%	12,220	55,890	3,250	117,130	-	21,333
2008	3,559	580	6.14	797	198	7	-	5,147	0.7%	12,590	57,570	3,270	117,130	-	21,540
2009	3,580	584	6.13	807	200	7	-	5,184	0.7%	12,970	59,300	3,290	117,130	-	21,726
2010	3,601	588	6.12	816	202	7	-	5,220	0.7%	13,100	59,890	3,320	118,300	-	21,945
2011	3,622	592	6.12	825	204	7	-	5,256	0.7%	13,230	60,490	3,350	119,480	-	22,166
2012	3,643	596	6.11	833	205	7	-	5,290	0.6%	13,360	61,090	3,380	120,670	-	22,399
2013	3,665	600	6.11	841	207	7	-	5,326	0.7%	13,490	61,700	3,410	121,880	-	22,625
2014	3,687	604	6.10	849	209	7	-	5,362	0.7%	13,620	62,320	3,440	123,100	-	22,855
2015	3,708	608	6.10	856	211	7	-	5,396	0.6%	13,760	62,940	3,470	124,330	-	23,094
2016	3,729	612	6.09	863	213	7	-	5,430	0.6%	13,900	63,570	3,500	125,570	-	23,332
2017	3,750	616	6.09	870	215	7	-	5,464	0.6%	14,040	64,210	3,540	126,830	-	23,535
2018	3,771	620	6.08	877	217	7	-	5,498	0.6%	14,180	64,850	3,580	128,100	-	23,775
2019	3,791	624	6.08	884	219	7	-	5,531	0.6%	14,320	65,500	3,620	129,380	-	24,015
2020	3,811	627	6.08	891	220	7	-	5,562	0.6%	14,460	66,160	3,660	130,670	-	24,264
2021	3,831	631	6.07	897	222	7	-	5,594	0.6%	14,600	66,820	3,700	131,980	-	24,523
2022	3,851	634	6.07	903	224	7	-	5,625	0.6%	14,750	67,490	3,740	133,300	-	24,752
2023	3,871	637	6.08	909	226	7	-	5,656	0.6%	14,900	68,160	3,780	134,630	-	-
2024	3,891	641	6.07	915	228	7	-	5,688	0.6%	15,050	68,840	3,820	135,980	-	-
2025	3,911	644	6.07	921	229	-	-	5,711	0.4%	15,200	69,530	3,860	137,340	-	0
Compound Annual Growth Rates (Unless Marked Average):										Average					
2005-2009	0.6%	0.7%	-0.1%	1.5%	0.9%			0.8%	0.8%	3.0%	3.0%	0.5%	0.0%	0.0%	
2009-2014	0.6%	0.7%	-0.1%	1.0%	0.9%			0.7%	0.7%	1.0%	1.0%	1.0%	1.0%	1.0%	
2014-2024	0.5%	0.6%	-0.1%	0.8%	0.9%			0.6%	0.6%	1.0%	1.0%	1.0%	1.0%	1.0%	
2005-2025	0.6%	0.6%	-0.1%	1.0%	0.9%			0.6%	0.7%						

Table 10
City and Borough of Sitka
2005 Electric Load Forecast
Forecasted Energy Sales, Total Requirements, Losses and Peak Demand
(kilowatt-hours)

MEDIUM CASE

Fiscal Year	Residential	Commercial	Boats	Public Authority	Public Safety	Total Retail	Annual % Change	SMC	Total Sales	PA - Nonbill	Losses	Total Requirements	Loss %	Peak Demand (kW)	Load Factor
2004 (Act)	39,303,610	29,101,299	2,459,212	22,067,517	178,659	93,110,297		1,524,713	94,635,010	1,723,855	6,689,113	103,047,978	6.5%	19,834	59.1%
2005	40,215,900	29,922,200	2,442,800	22,606,100	-	95,187,000	2.2%	2,190,000	97,377,000	1,500,000	6,311,300	105,188,300	6.0%	19,700	61.0%
2006	40,446,100	29,829,800	2,507,800	22,496,200	-	95,279,900	0.1%	2,628,000	97,907,900	1,507,500	6,345,700	105,761,100	6.0%	19,800	61.0%
2007	40,664,800	29,738,900	2,570,200	22,500,800	-	95,474,700	0.2%	2,628,000	98,102,700	1,515,040	6,358,560	105,976,300	6.0%	19,800	61.0%
2008	40,872,000	29,643,800	2,630,100	22,389,100	-	95,535,000	0.1%	2,628,000	98,163,000	1,522,620	6,362,880	106,048,500	6.0%	19,800	61.0%
2009	41,067,700	29,550,400	2,687,300	22,389,500	-	95,694,900	0.2%	3,504,000	99,198,900	1,530,230	6,429,470	107,158,600	6.0%	20,100	61.0%
2010	41,323,500	29,899,800	2,733,600	22,614,000	-	96,570,900	0.9%	3,504,000	100,074,900	1,537,880	6,485,920	108,098,700	6.0%	20,200	61.0%
2011	41,568,500	30,200,100	2,780,300	22,841,600	-	97,390,500	0.8%	3,504,000	100,894,500	1,545,570	6,538,730	108,978,800	6.0%	20,400	61.0%
2012	41,802,400	30,507,800	2,823,900	23,184,600	-	98,318,700	1.0%	3,504,000	101,822,700	1,553,300	6,598,500	109,974,500	6.0%	20,600	61.0%
2013	42,036,900	30,817,100	2,864,400	23,415,100	-	99,133,500	0.8%	3,504,000	102,637,500	1,561,070	6,650,930	110,849,500	6.0%	20,700	61.0%
2014	42,260,400	31,128,000	2,905,200	23,646,800	-	99,940,400	0.8%	3,504,000	103,444,400	1,568,880	6,703,020	111,716,300	6.0%	20,900	61.0%
2015	42,630,500	31,440,400	2,942,900	23,881,600	-	100,895,400	1.0%	3,547,800	104,443,200	1,576,720	6,767,180	112,787,100	6.0%	21,100	61.0%
2016	42,990,500	31,754,400	2,980,700	24,117,600	-	101,843,200	0.9%	3,591,600	105,434,800	1,584,600	6,831,000	113,850,400	6.0%	21,300	61.0%
2017	43,351,800	32,069,900	3,018,900	24,354,700	-	102,795,300	0.9%	3,635,400	106,430,700	1,592,520	6,895,080	114,918,300	6.0%	21,500	61.0%
2018	43,702,800	32,334,100	3,053,700	24,595,100	-	103,685,700	0.9%	3,679,200	107,364,900	1,600,480	6,955,220	115,920,600	6.0%	21,700	61.0%
2019	44,055,100	32,599,300	3,088,800	24,836,700	-	104,579,900	0.9%	3,723,000	108,302,900	1,608,480	7,015,620	116,927,000	6.0%	21,900	61.0%
2020	44,408,700	32,871,800	3,124,000	25,079,500	-	105,484,000	0.9%	3,766,800	109,250,800	1,616,520	7,076,680	117,944,000	6.0%	22,100	61.0%
2021	44,763,600	33,145,200	3,155,900	25,323,400	-	106,388,100	0.9%	3,810,600	110,198,700	1,624,600	7,137,700	118,961,000	6.0%	22,300	61.0%
2022	45,107,800	33,419,800	3,187,900	25,570,700	-	107,286,200	0.8%	3,854,400	111,140,600	1,632,720	7,198,280	119,971,600	6.0%	22,500	61.0%
2023	45,453,200	33,695,500	3,220,100	25,819,100	-	108,187,900	0.8%	3,898,200	112,086,100	1,640,880	7,259,120	120,986,100	6.0%	22,600	61.0%
2024	45,799,700	33,972,200	3,252,500	26,068,800	-	109,093,200	0.8%	3,942,000	113,035,200	1,649,080	7,320,320	122,004,600	6.0%	22,800	61.0%
2025	46,147,500	34,250,000	3,285,000	26,321,800	-	110,004,300	0.8%	3,985,800	113,990,100	1,657,330	7,381,770	123,029,200	6.0%	23,000	61.0%
Compound Annual Growth Rates (Unless Marked Average):															
						Average					Average				
2005-2009	0.5%	-0.3%	2.4%	-0.2%		0.1%	0.6%	1.0%	0.5%	0.5%	0.5%	0.5%	6.0%	0.5%	0.0%
2009-2014	0.6%	1.0%	1.6%	1.1%		0.9%	0.9%	1.0%	0.8%	0.5%	0.8%	0.8%	6.0%	0.8%	0.0%
2014-2024	0.8%	0.9%	1.1%	1.0%		0.9%	0.9%	1.0%	0.9%	0.5%	0.9%	0.9%	6.0%	0.9%	0.0%
2005-2025	0.7%	0.7%	1.5%	0.8%		0.7%	0.8%	3.0%	0.8%	0.5%	0.8%	0.8%	6.0%	0.8%	0.0%

Table 10
City and Borough of Sitka
2005 Electric Load Forecast
Forecasted Energy Sales, Total Requirements, Losses and Peak Demand
(kilowatt-hours)

HIGH CASE

Fiscal Year	Residential	Commercial	Boats	Public Authority	Public Safety	Total Retail	Annual %		Total Sales	PA - Nonbill	Losses	Total		Peak Demand (kW)	Load Factor	
							Change	SMC				Requirements	Loss %			
2004 (Act)	39,303,610	29,101,299	2,459,212	22,067,517	178,659	93,110,297			1,524,713	94,635,010	1,723,855	6,689,113	103,047,978	6.5%	19,834	59.1%
2005	40,227,500	29,922,200	2,442,800	22,606,100	-	95,198,600	2.2%	2,628,000	97,826,600	1,500,000	7,476,200	106,802,800	7.0%	21,800	56.0%	
2006	40,691,700	30,281,700	2,500,000	22,723,200	-	96,196,600	1.0%	3,504,000	99,700,600	1,507,500	7,617,800	108,825,900	7.0%	22,200	56.0%	
2007	41,146,900	30,643,200	2,554,500	22,957,500	-	97,302,100	1.1%	3,504,000	100,806,100	1,515,040	7,701,560	110,022,700	7.0%	22,400	56.0%	
2008	41,604,700	31,012,600	2,606,200	23,191,700	-	98,415,200	1.1%	3,504,000	101,919,200	1,522,620	7,785,980	111,227,800	7.0%	22,700	56.0%	
2009	42,065,000	31,384,200	2,655,000	23,426,000	-	99,530,200	1.1%	4,380,000	103,910,200	1,530,230	7,936,370	113,376,800	7.0%	23,100	56.0%	
2010	42,743,900	31,916,600	2,709,100	23,896,600	-	101,266,200	1.7%	4,423,800	105,690,000	1,537,880	8,070,920	115,298,800	7.0%	23,500	56.0%	
2011	43,427,800	32,453,400	2,763,800	24,373,900	-	103,018,900	1.7%	4,467,600	107,486,500	1,545,570	8,206,730	117,238,800	7.0%	23,900	56.0%	
2012	44,116,700	33,000,500	2,815,500	24,737,400	-	104,670,100	1.6%	4,511,400	109,181,500	1,553,300	8,334,900	119,069,700	7.0%	24,300	56.0%	
2013	44,823,000	33,552,000	2,867,800	25,229,200	-	106,472,000	1.7%	4,555,200	111,027,200	1,561,070	8,474,430	121,062,700	7.0%	24,700	56.0%	
2014	45,534,500	34,113,900	2,920,600	25,727,900	-	108,296,900	1.7%	4,599,000	112,895,900	1,568,880	8,615,620	123,080,400	7.0%	25,100	56.0%	
2015	46,238,800	34,680,300	2,970,300	26,233,600	-	110,123,000	1.7%	4,686,600	114,809,600	1,576,720	8,760,280	125,146,600	7.0%	25,500	56.0%	
2016	46,948,100	35,257,300	3,020,500	26,746,400	-	111,972,300	1.7%	4,774,200	116,746,500	1,584,600	8,906,600	127,237,700	7.0%	25,900	56.0%	
2017	47,700,000	35,845,000	3,079,800	27,268,500	-	113,893,300	1.7%	4,861,800	118,755,100	1,592,520	9,058,380	129,406,000	7.0%	26,400	56.0%	
2018	48,457,400	36,437,400	3,139,700	27,797,700	-	115,832,200	1.7%	4,949,400	120,781,600	1,600,480	9,211,520	131,593,600	7.0%	26,800	56.0%	
2019	49,207,200	37,040,600	3,200,100	28,334,200	-	117,782,100	1.7%	5,037,000	122,819,100	1,608,480	9,365,520	133,793,100	7.0%	27,300	56.0%	
2020	49,962,200	37,588,700	3,261,100	28,747,400	-	119,559,400	1.5%	5,124,600	124,684,000	1,616,520	9,506,480	135,807,000	7.0%	27,700	56.0%	
2021	50,722,400	38,207,100	3,318,900	29,299,600	-	121,548,000	1.7%	5,212,200	126,760,200	1,624,600	9,663,400	138,048,200	7.0%	28,100	56.0%	
2022	51,487,900	38,775,400	3,377,200	29,859,200	-	123,499,700	1.6%	5,299,800	128,799,500	1,632,720	9,817,480	140,249,700	7.0%	28,600	56.0%	
2023	52,258,500	39,347,500	3,436,000	30,426,400	-	125,468,400	1.6%	5,387,400	130,855,800	1,640,880	9,972,820	142,469,500	7.0%	29,000	56.0%	
2024	53,073,200	39,992,000	3,495,300	31,003,400	-	127,563,900	1.7%	5,475,000	133,038,900	1,649,080	10,137,820	144,825,800	7.0%	29,500	56.0%	
2025	53,893,600	40,578,400	3,555,100	31,450,900	-	129,478,000	1.5%	5,562,600	135,040,600	1,657,330	10,289,070	146,987,000	7.0%	30,000	56.0%	
Compound Annual Growth Rates (Unless Marked Average):																
						Average					Average					
2005-2009	1.1%	1.2%	2.1%	0.9%		1.1%	1.4%	1.0%	1.5%	0.5%	1.5%	1.5%	7.0%	1.5%	0.0%	
2009-2014	1.6%	1.7%	1.9%	1.9%		1.7%	1.7%	1.0%	1.7%	0.5%	1.7%	1.7%	7.0%	1.7%	0.0%	
2014-2024	1.5%	1.6%	1.8%	1.9%		1.7%	1.6%	1.0%	1.7%	0.5%	1.6%	1.6%	7.0%	1.6%	0.0%	
2005-2025	1.5%	1.5%	1.9%	1.7%		1.5%	1.6%	3.8%	1.6%	0.5%	1.6%	1.6%	7.0%	1.6%	0.0%	

Table 10
City and Borough of Sitka
2005 Electric Load Forecast
Forecasted Energy Sales, Total Requirements, Losses and Peak Demand
(kilowatt-hours)

LOW CASE

Fiscal Year	Residential	Commercial	Boats	Public Authority	Public Safety	Total Retail	Annual %		Total Sales	PA - Nonbill	Losses	Total		Peak Demand (kW)	Load Factor	
							Change	SMC				Requirements	Loss %			
2004 (Act)	39,303,610	29,101,299	2,459,212	22,067,517	178,659	93,110,297			1,524,713	94,635,010	1,723,855	6,689,113	103,047,978	6.5%	19,834	59.1%
2005	40,204,400	29,922,200	2,442,800	22,606,100	-	95,175,500	2.2%	1,752,000	96,927,500	1,500,000	5,180,400	103,607,900	5.0%	18,800	63.0%	
2006	39,814,700	29,681,100	2,445,800	22,381,800	-	94,323,400	-0.9%	2,190,000	96,513,400	1,507,500	5,159,000	103,179,900	5.0%	18,700	63.0%	
2007	39,396,600	29,439,400	2,444,500	22,159,800	-	93,440,300	-0.9%	2,190,000	95,630,300	1,515,040	5,112,960	102,258,300	5.0%	18,500	63.0%	
2008	38,951,000	29,197,200	2,438,800	21,940,200	-	92,527,200	-1.0%	2,190,000	94,717,200	1,522,620	5,065,280	101,305,100	5.0%	18,400	63.0%	
2009	38,514,500	28,954,700	2,429,100	21,721,200	-	91,619,500	-1.0%	2,190,000	93,809,500	1,530,230	5,017,870	100,357,600	5.0%	18,200	63.0%	
2010	38,622,900	29,103,500	2,456,200	21,831,500	-	92,014,100	0.4%	2,190,000	94,204,100	1,537,880	5,039,020	100,781,000	5.0%	18,300	63.0%	
2011	38,720,500	29,252,200	2,480,200	21,941,700	-	92,394,600	0.4%	2,190,000	94,584,600	1,545,570	5,059,530	101,189,700	5.0%	18,300	63.0%	
2012	38,807,200	29,400,900	2,504,300	22,052,000	-	92,764,400	0.4%	2,190,000	94,954,400	1,553,300	5,079,400	101,587,100	5.0%	18,400	63.0%	
2013	38,872,200	29,500,100	2,525,400	22,162,300	-	93,060,000	0.3%	2,190,000	95,250,000	1,561,070	5,095,330	101,906,400	5.0%	18,500	63.0%	
2014	38,926,400	29,599,300	2,543,500	22,162,300	-	93,231,500	0.2%	2,190,000	95,421,500	1,568,880	5,104,720	102,095,100	5.0%	18,500	63.0%	
2015	38,980,600	29,698,400	2,558,500	22,272,500	-	93,510,000	0.3%	2,190,000	95,700,000	1,576,720	5,119,780	102,396,500	5.0%	18,600	63.0%	
2016	39,024,000	29,797,600	2,573,600	22,272,500	-	93,667,700	0.2%	2,190,000	95,857,700	1,584,600	5,128,500	102,570,800	5.0%	18,600	63.0%	
2017	39,067,400	29,847,200	2,585,600	22,382,800	-	93,883,000	0.2%	2,190,000	96,073,000	1,592,520	5,140,280	102,805,800	5.0%	18,600	63.0%	
2018	39,110,700	29,896,700	2,597,600	22,382,800	-	93,987,800	0.1%	2,190,000	96,177,800	1,600,480	5,146,220	102,924,500	5.0%	18,600	63.0%	
2019	39,154,100	29,946,300	2,606,700	22,382,800	-	94,089,900	0.1%	2,190,000	96,279,900	1,608,480	5,152,020	103,040,400	5.0%	18,700	63.0%	
2020	39,186,600	29,995,900	2,615,700	22,493,000	-	94,291,200	0.2%	2,190,000	96,481,200	1,616,520	5,163,080	103,260,800	5.0%	18,700	63.0%	
2021	39,219,100	30,045,500	2,624,700	22,493,000	-	94,382,300	0.1%	2,190,000	96,572,300	1,624,600	5,168,300	103,365,200	5.0%	18,700	63.0%	
2022	39,251,600	30,095,100	2,633,800	22,493,000	-	94,473,500	0.1%	2,190,000	96,663,500	1,632,720	5,173,480	103,469,700	5.0%	18,700	63.0%	
2023	39,284,200	30,144,600	2,639,800	22,493,000	-	94,561,600	0.1%	2,190,000	96,751,600	1,640,880	5,178,520	103,571,000	5.0%	18,800	63.0%	
2024	39,316,700	30,194,200	2,645,800	22,603,300	-	94,760,000	0.2%	2,190,000	96,950,000	1,649,080	5,189,420	103,788,500	5.0%	18,800	63.0%	
2025	39,338,400	30,243,800	2,651,800	22,603,300	-	94,837,300	0.1%	2,190,000	97,027,300	1,657,330	5,193,970	103,878,600	5.0%	18,800	63.0%	
Compound Annual Growth Rates (Unless Marked Average):																
							Average					Average				
2005-2009	-1.1%	-0.8%	-0.1%	-1.0%		-0.9%	-0.2%	1.0%	-0.8%	0.5%	-0.8%	-0.8%	5.0%	-0.8%	0.0%	
2009-2014	0.2%	0.4%	0.9%	0.4%		0.3%	0.3%	1.0%	0.3%	0.5%	0.3%	0.3%	5.0%	0.3%	0.0%	
2014-2024	0.1%	0.2%	0.4%	0.2%		0.2%	0.2%	1.0%	0.2%	0.5%	0.2%	0.2%	5.0%	0.2%	0.0%	
2005-2025	-0.1%	0.1%	0.4%	0.0%		0.0%	0.1%	1.1%	0.0%	0.5%	0.0%	0.0%	5.0%	0.0%	0.0%	

Table 10
City and Borough of Sitka
2005 Electric Load Forecast
Forecasted Energy Sales, Total Requirements, Losses and Peak Demand
(kilowatt-hours)

HIGH ELECTRIC HEAT CASE

Fiscal Year	Residential	Commercial	Boats	Public Authority	Public Safety	Total Retail	Annual % Change	SMC	Total Sales	PA - Nonbill	Losses	Total Requirements	Loss %	Peak Demand (kW)	Load Factor
2004 (Act)	39,303,610	29,101,299	2,459,212	22,067,517	178,659	93,110,297		1,524,713	94,635,010	1,723,855	6,689,113	103,047,978	6.5%	19,834	0.0%
2005	40,227,500	29,922,200	2,442,800	22,606,100	-	95,198,600	2.2%	2,628,000	97,826,600	1,500,000	7,476,200	106,802,800	7.0%	21,800	56.0%
2006	41,711,600	31,036,700	2,500,000	22,723,200	-	97,971,500	2.9%	3,504,000	101,475,500	1,507,500	7,751,400	110,734,400	7.0%	22,600	56.0%
2007	43,234,400	32,192,600	2,554,500	22,957,500	-	100,939,000	3.0%	3,504,000	104,443,000	1,515,040	7,975,360	113,933,400	7.0%	23,200	56.0%
2008	44,807,800	33,390,600	2,606,200	23,191,700	-	103,996,300	3.0%	3,504,000	107,500,300	1,522,620	8,205,980	117,228,900	7.0%	23,900	56.0%
2009	46,432,600	34,631,200	2,655,000	23,426,000	-	107,144,800	3.0%	4,380,000	111,524,800	1,530,230	8,509,470	121,564,500	7.0%	24,800	56.0%
2010	47,173,100	35,215,300	2,709,100	23,896,600	-	108,994,100	1.7%	4,423,800	113,417,900	1,537,880	8,652,620	123,608,400	7.0%	25,200	56.0%
2011	47,919,100	35,810,100	2,763,800	24,373,900	-	110,866,900	1.7%	4,467,600	115,334,500	1,545,570	8,797,430	125,677,500	7.0%	25,600	56.0%
2012	48,670,500	36,409,600	2,815,500	24,737,400	-	112,633,000	1.6%	4,511,400	117,144,400	1,553,300	8,934,200	127,631,900	7.0%	26,000	56.0%
2013	49,440,900	37,020,000	2,867,800	25,229,200	-	114,557,900	1.7%	4,555,200	119,113,100	1,561,070	9,083,030	129,757,200	7.0%	26,500	56.0%
2014	50,216,900	37,641,300	2,920,600	25,727,900	-	116,506,700	1.7%	4,599,000	121,105,700	1,568,880	9,233,620	131,908,200	7.0%	26,900	56.0%
2015	51,022,100	38,267,500	2,970,300	26,233,600	-	118,493,500	1.7%	4,686,600	123,180,100	1,576,720	9,390,280	134,147,100	7.0%	27,300	56.0%
2016	51,833,100	38,904,800	3,020,500	26,746,400	-	120,504,800	1.7%	4,774,200	125,279,000	1,584,600	9,548,900	136,412,500	7.0%	27,800	56.0%
2017	52,650,000	39,553,400	3,079,800	27,268,500	-	122,551,700	1.7%	4,861,800	127,413,500	1,592,520	9,710,180	138,716,200	7.0%	28,300	56.0%
2018	53,472,800	40,207,000	3,139,700	27,797,700	-	124,617,200	1.7%	4,949,400	129,566,600	1,600,480	9,872,820	141,039,900	7.0%	28,800	56.0%
2019	54,287,100	40,872,000	3,200,100	28,334,200	-	126,693,400	1.7%	5,037,000	131,730,400	1,608,480	10,036,220	143,375,100	7.0%	29,200	56.0%
2020	55,107,100	41,482,300	3,261,100	28,747,400	-	128,597,900	1.5%	5,124,600	133,722,500	1,616,520	10,186,780	145,525,800	7.0%	29,700	56.0%
2021	55,932,600	42,163,400	3,318,900	29,299,600	-	130,714,500	1.6%	5,212,200	135,926,700	1,624,600	10,353,300	147,904,600	7.0%	30,200	56.0%
2022	56,802,300	42,788,700	3,377,200	29,859,200	-	132,827,400	1.6%	5,299,800	138,127,200	1,632,720	10,519,580	150,279,500	7.0%	30,600	56.0%
2023	57,677,900	43,417,900	3,436,000	30,426,400	-	134,958,200	1.6%	5,387,400	140,345,600	1,640,880	10,687,120	152,673,600	7.0%	31,100	56.0%
2024	58,559,600	44,126,400	3,495,300	31,003,400	-	137,184,700	1.6%	5,475,000	142,659,700	1,649,080	10,861,920	155,170,700	7.0%	31,600	56.0%
2025	59,447,200	44,777,300	3,555,100	31,450,900	-	139,230,500	1.5%	5,562,600	144,793,100	1,657,330	11,023,170	157,473,600	7.0%	32,100	56.0%

	Compound Annual Growth Rates (Unless Marked Average):				Average				Average					
2005-2009	3.7%	3.7%	2.1%	0.9%	3.0%	2.7%	1.0%	3.3%	0.5%	3.3%	3.3%	7.0%	3.3%	0.0%
2009-2014	1.6%	1.7%	1.9%	1.9%	1.7%	1.7%	1.0%	1.7%	0.5%	1.6%	1.6%	7.0%	1.6%	0.0%
2014-2024	1.5%	1.6%	1.8%	1.9%	1.6%	1.6%	1.0%	1.7%	0.5%	1.6%	1.6%	7.0%	1.6%	0.0%
2005-2025	2.0%	2.0%	1.9%	1.7%	1.9%	1.9%	3.8%	2.0%	0.5%	2.0%	2.0%	7.0%	2.0%	0.0%

Table 11
City and Borough of Sitka
 2005 Electric Load Forecast

Estimated Interruptible Energy Sales

Fiscal Year	Projected Interruptible Base Load (kWh)			Hydroelectric Generation Capability (kWh)			Potential Interruptible Sales - Average Water			Potential Interruptible Sales - High Water		
	Muni. Heat	Industrial	Total	Low Water	Average	High Water	Medium	High	Low	Medium	High	Low
							Retail Loads	Retail Loads	Retail Loads	Retail Loads	Retail Loads	Retail Loads
2004	-	-	-	85,000,000	124,000,000	135,000,000	-	-	-	-	-	-
2005	241,700	-	241,700	85,000,000	124,000,000	135,000,000	241,700	241,700	241,700	241,700	241,700	241,700
2006	4,167,900	-	4,167,900	85,000,000	124,000,000	135,000,000	4,167,900	4,167,900	4,167,900	4,167,900	4,167,900	4,167,900
2007	7,985,200	-	7,985,200	85,000,000	124,000,000	135,000,000	7,985,200	7,985,200	7,985,200	7,985,200	7,985,200	7,985,200
2008	7,985,200	2,880,000	10,865,200	85,000,000	124,000,000	135,000,000	10,865,200	10,865,200	10,865,200	10,865,200	10,865,200	10,865,200
2009	7,985,200	4,880,000	12,865,200	85,000,000	124,000,000	135,000,000	12,865,200	10,623,200	12,865,200	12,865,200	12,865,200	12,865,200
2010	9,985,200	6,880,000	16,865,200	85,000,000	124,000,000	135,000,000	15,901,300	8,701,200	16,865,200	16,865,200	16,865,200	16,865,200
2011	9,985,200	8,880,000	18,865,200	85,000,000	124,000,000	135,000,000	15,021,200	6,761,200	18,865,200	18,865,200	17,761,200	18,865,200
2012	9,985,200	10,080,000	20,065,200	85,000,000	130,000,000	160,000,000	20,025,500	10,930,300	20,065,200	20,065,200	20,065,200	20,065,200
2013	9,985,200	10,080,000	20,065,200	85,000,000	130,000,000	160,000,000	19,150,500	8,937,300	20,065,200	20,065,200	20,065,200	20,065,200
2014	9,985,200	10,080,000	20,065,200	85,000,000	130,000,000	160,000,000	18,283,700	6,919,600	20,065,200	20,065,200	20,065,200	20,065,200
2015	9,985,200	10,080,000	20,065,200	85,000,000	130,000,000	160,000,000	17,212,900	4,853,400	20,065,200	20,065,200	20,065,200	20,065,200
2016	9,985,200	10,080,000	20,065,200	85,000,000	130,000,000	160,000,000	16,149,600	2,762,300	20,065,200	20,065,200	20,065,200	20,065,200
2017	9,985,200	10,080,000	20,065,200	85,000,000	130,000,000	160,000,000	15,081,700	594,000	20,065,200	20,065,200	20,065,200	20,065,200
2018	9,985,200	10,080,000	20,065,200	85,000,000	130,000,000	160,000,000	14,079,400	-	20,065,200	20,065,200	20,065,200	20,065,200
2019	9,985,200	10,080,000	20,065,200	85,000,000	130,000,000	160,000,000	13,073,000	-	20,065,200	20,065,200	20,065,200	20,065,200
2020	9,985,200	10,080,000	20,065,200	85,000,000	130,000,000	160,000,000	12,056,000	-	20,065,200	20,065,200	20,065,200	20,065,200
2021	9,985,200	10,080,000	20,065,200	85,000,000	130,000,000	160,000,000	11,039,000	-	20,065,200	20,065,200	20,065,200	20,065,200
2022	9,985,200	10,080,000	20,065,200	85,000,000	130,000,000	160,000,000	10,028,400	-	20,065,200	20,065,200	19,750,300	20,065,200
2023	9,985,200	10,080,000	20,065,200	85,000,000	130,000,000	160,000,000	9,013,900	-	20,065,200	20,065,200	17,530,500	20,065,200
2024	9,985,200	10,080,000	20,065,200	85,000,000	130,000,000	160,000,000	7,995,400	-	20,065,200	20,065,200	15,174,200	20,065,200
2025	9,985,200	10,080,000	20,065,200	85,000,000	130,000,000	160,000,000	6,970,800	-	20,065,200	20,065,200	13,013,000	20,065,200
Compound Annual Growth Rates (Unless Marked Average):												
2005-2009							0.5%				170.1%	
2009-2014	4.6%	15.6%	9.3%				0.8%				9.3%	
2014-2024	0.0%	0.0%	0.0%				0.9%				0.0%	
2005-2025	20.4%		24.7%				0.8%				24.7%	