STATE OF ALASKA

THE REGULATORY COMMISSION OF ALASKA

Before Commissioners:	Robert Mr. Pickett, Chair Kate Giard Paul F. Lisanke T.W. Patch Janis W. Wilson
In the matter of the Tariff Revision, Designated as TA381-1, Filed ALASKA ELECTRIC LIGHT AND POWER COMPANY For Interim and Permanent Rate Increases	TA 381-1 U-10-___

PREFILED DIRECT TESTIMONY OF TIMOTHY D. McLEOD

Q1. Will you please state your name, position, address, and background?

A1. My name is Timothy D. McLeod. I am the President and General Manager of Alaska Electric Light and Power ("AELP"). My business address is 5601 Tonsgard Court, Juneau, Alaska 99801.

I began work in the electric utility sector in 1971, when I took a position with a firm doing land surveying and power line design and inspections. In 1973, I joined the engineering department of Mountain Parks Electric, Inc., an electric cooperative in Granby, Colorado. During that time I also continued my academic studies in electrical engineering, and eventually became the manager of the engineering department.

In 1983, I joined AELP as the Assistant Transmission and Distribution Engineer. In 1987, I became the manager of that department. During that time I also studied accounting and business management at the University of Alaska Southeast in Juneau.

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In 2000 I transferred to the position of Secretary-Treasurer to oversee the company's financial operations. In 2001, I became the Assistant General Manager, and in August 2002 I assumed my present position as AELP's President and General Manager.

Q2. What is your role in this proceeding and what other witnesses will AELP present?

A2 As President and General Manager, I am responsible for AELP's overall policies and ratemaking decisions, and will testify with respect to those matters. Constance S. Hulbert, AELP's Secretary-Treasurer, has primary responsibility for the revenue requirement study and supporting information and her testimony deals primarily with those matters. Thomas M. Zepp, with Utility Resources, Inc., will present testimony regarding AELP's cost of capital. David A. Gray, with CH2MHill, will present testimony on the cost of service study.

Q3. What matters will you discuss as the AELP policy witness?

A3. I will comment on AELP's policy objectives, the Juneau economy, and other background matters related to this rate proceeding.

Q4. What are AELP's corporate goals?

A4. AELP has three main corporate policy goals. They are to:

1. Provide safe and reliable service from electric energy generated from renewable resources;
2. Provide among the lowest average electric rates of major regulated utilities in Alaska, over the long run while maintaining financial integrity; and

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3. Utilize electric resources efficiently.

The corporate goals were first adopted in 1983; since then they have been modified several times and are reevaluated periodically. We believe we are doing a good job meeting these goals. However, as my testimony and that of AELP's other witnesses will show, in the absence of the rate increase we have requested, the utility will be unable to meet one key part of these goals: maintaining financial integrity. In the long run, failure to maintain financial integrity hinders the company's ability to sustain the first and third goals.

Q5. Please summarize Juneau's economic situation and outlook.

A5. Juneau's economy is primarily dependent on the state and federal governments, with mining and tourism being the largest other source of employment. The Hecla Greens Creek Mining Company ("HGCMC") mine on Admiralty Island began operations in 1989, and has approximately 330 employees, making it one of the largest individual private employers in Southeast Alaska. The outlook for the mine is positive due to high mineral prices and because the operator continues to identify additional mineral reserves.

The Kensington Mine, located approximately 35 miles north of Juneau, recently received final permitting, is nearing completion of necessary facilities, and plans to begin mining operations in July of this year. When full operation is achieved, the Kensington mine is expected to employ approximately 200 people. AELP is not electrically connected to the Kensington Mine, so the mine's initial impact on AELP will consist of induced load growth from the jobs and other local economic activity the mine creates.

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Tourism employment had experienced many years of continuous growth until 2009. In 2009, there was a small reduction in the number of ship visits to Juneau, and even fewer visits are committed in 2010. The cruise ship lines have reduced voyages to Alaska due to weak demand from the lower 48 states and in part because of the $50 head tax passed by Statewide Initiative in 2008. On April 25, 2010, the Alaska Legislature voted to overturn the head tax initiative and passed a bill that will reduce the head tax to $19.50 for cruise ship voyages to Juneau.

In general, the Juneau area economy is stable, with new mining jobs offsetting a slight downturn in tourism, but remains vulnerable because of its lack of diversity. Tourism can be affected by a variety of unexpected events, such as a flu epidemic and the economic climate in the Lower 48. Mining operations depend on mineral prices, along with other factors beyond the control of the operators. Juneau's economic vulnerabilities also include the potential relocation of the Capital to a location in Alaska's Railbelt (a possibility we do not currently expect will materialize) as well as the further migration and/or relocation of state jobs to the Anchorage area.

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Q6. Please describe AELP's power generation resources.

A6. Attached as Exhibit TDM-1 is a diagram of the hydroelectric facilities and associated transmission lines that supply power to AELP. Before the recently constructed Phase 1 of the Lake Dorothy Hydroelectric Project ("Lake Dorothy") was completed, AELP owned three small hydroelectric generation facilities: the Annex Creek, Salmon Creek, and Gold Creek projects.

In 1998, the State of Alaska, through the Alaska Energy Authority ("AEA") and the Alaska Industrial Development & Export Authority ("AIDEA"), purchased the Snettisham Hydroelectric Project ("Snettisham") from the federal government, including the project's transmission line and submarine cables as well as its power generation facilities. Snettisham had already supplied most of AELP's power for many years. When the State purchased the project, AELP entered into a "take or pay" agreement for all of the Snettisham energy, obligating AELP to pay debt service costs of about $6 million annually, a contribution to the Renewal and Replacement fund, plus all of the project's operating and maintenance costs.

In addition to hydro facilities, AELP has the capacity to supply the entirety of Juneau's firm loads with diesel generating units. Because of the cost of fuel, and also because of permit restrictions on air emissions, AELP uses its diesel generation only for emergencies, such as during transmission line outages or to supplement available hydro power during periods of water deficiencies, and to periodically exercise the diesel generation units.

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After over 14 years of planning, permitting, and construction, Phase 1 of Lake Dorothy was completed and commenced commercial operation on August 31, 2009. Phase 1 of Lake Dorothy is capable of producing approximately 63 million kWhs during a dry water year and an average of about 75 million kWhs annually, incrementally adding approximately 20 percent of additional hydroelectric energy to AELP's grid.

Except during dry water years or hydroelectric supply or transmission outages, AELP will be able to supply all of its current firm loads with hydroelectric power. In addition, until load growth prevents it, AELP will also be able to sell hydroelectric energy to AELP's interruptible customers to help keep firm service rates low.

Q7. Please summarize the key factors that led AELP to constructing Lake Dorothy.

A7. As an initial matter, adding hydroelectric generation is much different from adding a single diesel or natural gas generating unit. First, the required lead time to plan for, permit, and construct a hydroelectric project like Lake Dorothy is usually much longer than for adding a thermal unit to an existing generation plant. Second, the capacity of a hydroelectric project is limited by the physical characteristics of the stream flow, drainage area and reservoir.

In the case of Lake Dorothy, it was identified many years ago as the most favorable resource for meeting Juneau's electric requirements. Investigation activities for the permitting and construction of Phase 1 of the project began in 1995, and the Federal Energy Regulatory Commission ("FERC") license for that phase was granted in

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December 2003. AELP was on the verge of using all of its available hydro energy in an average water year, with the chance of needing significant amounts of diesel in a dry water year.

Four key factors made Lake Dorothy particularly favorable as a new resource:

1. The Lake Dorothy reservoir topography allowed for two phases of development: Phase 1 was cheaper and would provide less energy per year, which was ideal for initial construction, and Phase 2 could be constructed later to meet the additional energy needs of the community. Phase 1 takes water through a penstock from Bart Lake, which is located downstream of Lake Dorothy. Lake Dorothy was tapped 120 feet below the surface with a control valve to regulate the stream flow from Lake Dorothy into Bart Lake. The Bart Lake project was the least expensive option and best met AELP's current and projected resource needs. Phase 2 of the project will use water from the Lake Dorothy tap to power additional generators, more than doubling the total project output. With permitting and construction of Phase 1 completed, permitting and construction of the second phase in the future is expected to be less time consuming and could be completed in as little as four to five years.

2. AELP and HGCMC reached an agreement for the mine to purchase interruptible energy, which meant that now there was a large buyer immediately available to pay for a significant portion of the additional energy when the project came online. Because the mine is an interruptible customer, energy deliveries to it can be interrupted when and as needed to serve AELP's firm customers.

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3. Federal grant funds paid for the majority of the infrastructure needed to enable energy delivery to the mine.

4. Lake Dorothy diversifies the availability of hydro energy to Juneau and therefore reduces the potential need to generate with diesel in the event of the loss of energy from the other hydro projects. For example, prior to the completion of Lake Dorothy, Snettisham provided roughly 85 percent of the community's energy. With Phase 1 of Lake Dorothy online, that percentage drops to 70 percent. In the event that energy deliveries from Snettisham are interrupted due to generation or transmission outages, Phase 1 of Lake Dorothy energy will reduce diesel generation by roughly 40 percent of what would otherwise be needed. Related to that, Lake Dorothy is much closer to Juneau than is Snettisham and Lake Dorothy's transmission line is not as vulnerable to avalanche damage as is the Snettisham transmission line. *See* Exhibit TDM-1. For example, in 2008 and early 2009, avalanches damaged the Snettisham line, which required AELP to produce power from diesel generation for extended periods of time while the line was repaired. As a result, AELP's customers faced significant temporary rate increases for the cost of diesel fuel through AELP's emergency cost of power adjustment ("ECOPA"). During the 2008 avalanche, AELP burned 2.3 million gallons of fuel at a cost of $8.9 million, resulting in an ECOPA charge of 42.9 cents per kWh (in addition to base rates). During the 2009 avalanche, AEL&P burned 1.5 million gallons at a cost of $3.8 million, resulting in an ECOPA of 14.4 cents per kWh. If Phase 1 of Lake Dorothy had been in operation during those times, it would have allowed AELP to reduce its diesel generation by

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approximately 40 percent and would have saved AELP's customers over $5 million in diesel generation costs.

Q8. What advantage do interruptible customers provide to the construction of new hydro projects?

A8. Hydroelectric projects provide the lowest cost per kWh to consumers when operated at full capacity. Once hydro resources are fully loaded by firm loads, capacity to serve new load growth is provided by diesel generation or the construction of new hydroelectric resources. Interruptible customers make it possible to sustain optimal loading and the resulting lower rates to firm customers over a period of time. Interruptible customers reduce the cost per kilowatt hour and provide room for firm load growth from existing hydroelectric resources. By serving interruptible loads such as dual fuel heating systems, cruise ships, and the HGCMC mine, AELP has gained the ability to shed, if necessary, loads equal to nearly twenty percent of AELP's total annual energy sales requirements. In addition, while connected, the interruptible loads make a helpful revenue contribution to further reduce costs that would otherwise be borne solely by AELP's firm customers. For these reasons, AELP offers interruptible service to HGCMC and interruptible shore power to Princess Cruise Lines under Commission-approved power sales agreements. Special interruptible tariff rates are also available to other customers, such as the Juneau Federal Building, the University Library, and multiple residential customers with dual fuel heating systems.

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Q9. Beyond interruptible rates, what other innovative rates are offered by AELP?

A9: AELP is proud to offer alternative rate structures to stimulate consumer investment in energy efficiency. AELP's tariff includes special incentive rates for residential off-peak heat storage systems and air to air or ground source heat pumps. In addition, AELP is preparing submittal of two new innovative rates for the Commission's review:

1. An incentive rate for the use of Light Emitting Diode ("LED") street lights to promote conservation.
2. An incentive experimental rate to promote the use of plug-in electric vehicles, which will reduce oil consumption. AELP will then collect load research information related to this new type of rate.

Q10. AELP is proposing to annualize the rate base and depreciation expense associated with Lake Dorothy. Please explain why.

A10. Ms. Hulbert also addresses that in her testimony. From my perspective, that treatment is entirely reasonable for the following reasons. First, Lake Dorothy went into service and began serving AELP customers on August 31 of the test year, long before AELP's proposed new rates will go into effect.[1] Second, the adjustment is known and measurable. Third, Lake Dorothy is an extraordinary single project addition that constitutes a significant portion of AELP's net plant in service. Fourth, Lake Dorothy unquestionably provides benefits to AELP's customers through increased reliability,

[1] Currently, AELP is storing water in the Lake Dorothy reservoir while supplemental impermeable membrane is being extended in the Bart Lake reservoir to minimize underground seepage. Work related to reducing seepage will continue into July, but the hydroelectric production potential is being preserved through storage of the water in the Lake Dorothy reservoir.

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mitigation of diesel costs that would otherwise be charged to firm customers through AELP's COPA or ECOPA, and revenue credits from interruptible sales. Fifth, I understand that the Commission has approved this type of adjustment in two relatively recent rate cases — Order No. U-01-108(26) (allowing Chugach Electric Association, Inc. to recover annualized depreciation expenses associated with a $20 million generation unit repowering project even though parts of the project were not completed until 10 months after the end of the test year), and Order No. U-08-157(10) (allowing Anchorage Water and Wastewater Utility to annualize rate base and depreciation expense associated with a $22.2 million redundant water loop project that went into service in October of the test year). Sixth, if AELP is not allowed to annualize its known and measurable Lake Dorothy costs, it will preclude AELP from having the opportunity to earn a reasonable rate of return on investment.

Q11. What has AELP done to mitigate exposure to prolonged outages of the Snettisham line such as those caused by the avalanches of 2008 and 2009?

A11. The 43-mile Snettisham transmission line will always be vulnerable to catastrophic failure. In light of the recent events and the inherent exposure of the line, AELP believes it is necessary to build up a cash reserve to assure its ability to comply with the Snettisham take-or-pay and other debt service obligations, in the event of extended Snettisham line outages. In addition, AELP recognizes the need to install additional stand-by diesel generation and is proceeding with the required air quality studies and permitting. AELP has improved and will continue to improve the reliability of the Snettisham line and prepare for quick recovery of unavoidable line failures. Completed

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improvements include: (1) increased hydroelectric diversity with the construction of Phase 1 of Lake Dorothy; (2) construction of an avalanche diversion structure at tower 4/6, one of the most vulnerable transmission structures; (3) construction of a bypass of structure 3/5, which was damaged by both the 2008 and 2009 events; and (4) continuous avalanche monitoring and control work. AELP is also investigating design and funding of additional transmission line modifications through the avalanche zone. In addition, AELP is exploring investment options to mitigate other vulnerabilities of the Snettisham line, including the potential failure of the submarine cable crossing the Taku Inlet and avalanches in other known high risk zones.

Q12. Do you have any further comments on AELP's proposed rate increase at this time?

A12. AELP's requested rate increase is necessary to help ensure that AELP will have access to reasonably priced debt capital to fund necessary plant capital improvements. For example, during the last eight years, AELP had a transmission and distribution capital budget that averaged $1.6 million per year. In the next eight years, AELP expects to have an average transmission and distribution budget of $3.4 million per year. These capital improvements will be necessary for AELP to preserve and improve system reliability, replace inadequate plant, and meet any load growth that may occur. AELP will need to improve its debt-to-equity ratio, achieved rate of return on equity, and debt service coverage over the next several years in order to be able to attract the capital, at reasonable rates, needed to construct future resources.

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AELP can fund necessary capital expenditures with debt or equity. Equity capital is generally more costly than debt capital, and debt capital is generally more costly for a borrower with poor or declining financial ratios than it is for a borrower with solid financial ratios. Thus, as a general matter, inadequate electric rates can lead to poor financial indicators, which can lead to higher-cost debt or the need to fund capital improvements only with equity, both of which lead to further pressure to increase electric rates in the future.

In AELP's case, AELP's achieved rate of return on equity and its equity-to-debt ratio have declined significantly since AELP's last rate case. For example, AELP's 2009 actual achieved rate of return on common equity was 1.59 percent. That puts AELP in a poor position for financing and constructing needed capital improvements in the near future. Prompt approval of AELP's requested rate increase will help improve AELP's financial indicators and allow AELP to access low-cost capital when necessary, which in the long run will help stabilize AELP's electric rates.

Q13. Does this complete your testimony?

A13. Yes

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Exhibit TDM-1
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