

STATE OF ALASKA

THE REGULATORY COMMISSION OF ALASKA

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Before Commissioners:

Robert M. Pickett, Chairman
Stephen McAlpine
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Norman Rokeberg
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In the Matter of the Tariff Revision Designated as)
TA453-1 Filed by ALASKA ELECTRIC LIGHT)
AND POWER COMPANY)

TA453-1

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 Company ("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. In 2000, I transferred to the position of Secretary-Treasurer to oversee the company's

1 financial operations. In 2001, I became the Assistant General Manager, and in
2 August 2002 I assumed my present position as AELP's President and General Manager.

3
4 **Q2. What is your role in this proceeding and what other witnesses will AELP present?**

5 **A2:** As President and General Manager, I am responsible for AELP's overall policies and
6 ratemaking decisions, and will testify with respect to those matters. Constance
7 S. "Connie" Hulbert, AELP's Secretary-Treasurer, has primary responsibility for the
8 revenue requirement study and supporting information, and her testimony deals primarily
9 with those matters. Christy M. Yearous, AELP's Vice President and Generation
10 Engineer, has the primary responsibility for AELP's generation system, and her
11 testimony addresses AELP's generation facilities and system reliability. David A. Gray,
12 with Boswell & Associates, provides testimony on AELP's cost of service study.
13 Adrien M. McKenzie, with FINCAP, Inc., will testify on the capital structure and the
14 appropriate rate of return on equity for AELP.
15

16
17 **Q3. What matters will you discuss as the AELP policy witness?**

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

20
21 **Q4. What are AELP's corporate policy objectives?**

22 **A4.** AELP has three main corporate policy objectives. They are to:

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

1
2
3 3. Utilize electric resources efficiently.

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

11 **Q5. Please summarize Juneau's economic condition and outlook.**

12 **A5.** Juneau's economy is primarily dependent on the state and federal governments, with
13 mining and tourism being the largest other sources of basic employment that drives the
14 local economy. Juneau's unemployment levels are currently below the statewide
15 average, however, declining oil production coupled with low oil prices has negatively
16 impacted Juneau's economy. According to the State of Alaska Office Management and
17 Budget, due to the state budget deficit, Juneau has lost approximately 500 jobs over the
18 past year and will lose approximately 150 more next year.

19
20 The Greens Creek Mine on Admiralty Island began operations in 1989, and has
21 approximately 400 employees, making it one of the largest individual private employers
22 in Southeast Alaska. The outlook for the Greens Creek mine is positive as it has
23 identified additional mineral reserves and obtained permits for additional tailings
24 disposals.

1 The Kensington Mine, located approximately 35 miles north of Juneau, is in full
2 operation with nearly 300 employees. AELP is not electrically connected to the
3 Kensington Mine, but the mine provides an economic benefit to the community because
4 most of the employees reside in Juneau.
5

6
7 Tourism employment had experienced many years of continuous growth until 2009.
8 There was a down turn in the number of cruise ship passengers in 2009 and 2010, but
9 with an improved economy in the Lower 48 and a reduction in the Alaska passenger head
10 tax, tourist numbers have since recovered.
11

12 In summary, Juneau's private sector economy is currently stable, but Juneau's largest
13 employer, the state government, has declined and will continue to decline over the next
14 couple of years. Tourism and mining are currently stable but vulnerable to changes in
15 economic conditions.
16

17 **Q6. Please describe AELP's firm power sales for recent years.**

18 **A6.** AELP's firm sales trended upward until 2008. In 2008 and again in 2009, an avalanche
19 destroyed a section of the Snettisham Hydroelectric Project ("Snettisham") transmission
20 line and for a period in each of those years, AELP was forced to produce a large
21 percentage of Juneau's energy with more costly diesel generation. The high cost of
22 power (approximately five times the hydro rate in 2008) during those periods motivated
23 ratepayers to make extreme reductions in energy usage, some of which were sustained
24 after hydropower was restored. Deviations in annual heating degree-days and oil prices
25 also contribute to variations in annual kilowatt-hour ("kWh") consumption. Most new
26 buildings constructed in recent years use electricity as their primary heating source.
27

1 However, a high percentage of the all-electric homes are also equipped with oil-fired
2 heaters to reduce their electric heating costs during periods of low oil prices. Low oil
3 prices combined with warmer than normal weather over the past few years have resulted
4 in declining firm sales.
5

6
7 **Q7. How does AELP plan for system peak demand?**

8 A7. Planning for system demand is important and very challenging because of the influence
9 of external conditions. AELP's firm-load system peak (excluding the Greens Creek
10 Mine) occurred in 1995 and since that time AELP has installed nearly 500 new service
11 transformers with a total capacity of over 60 megavolt amperes ("MVA"). Warmer
12 weather conditions, low oil prices, and improvements in energy efficiency are key factors
13 in the stability of AELP's system load factor in recent years. However, AELP is
14 prepared and has planned for the conditions that will cause a much greater spike in
15 system demand. Those conditions are primarily extended cold weather and wind;
16 however, the peak is further exacerbated in periods of high oil prices, which discourage
17 customers from using or supplementing with oil for space heating.
18

19 **Q8. Describe AELP's electric system.**

20 A8. AELP's entire service area is within the City and Borough of Juneau. Juneau has a
21 population of about 33,000 and is the third largest city in the state. As Alaska's capital
22 city, system reliability during the most challenging season, the winter legislative session
23 months, is extra important. AELP's system is completely isolated and therefore must be
24 completely self-reliant as its transmission system is not interconnected to any other
25 electric utility resources. Approximately 94 percent of AELP's hydro generation is from
26 Snettisham and the Lake Dorothy Hydroelectric Project ("Lake Dorothy") and is
27

1 delivered to Juneau on a single, 43-mile long, 138 kV transmission line routed through
2 some of Alaska's most rugged terrain. The line crosses several avalanche zones, is
3 subject to rock and mud slides, tree damage, and a variety of equipment failures. A three
4 and one-half mile section of the transmission line is oil-filled submarine cable with oil
5 pressure equipment and terminations on each end. The transmission line has experienced
6 failures from each of those components and environmental exposures. A failure of the
7 line can separate AELP's loads from both Snettisham and Lake Dorothy, forcing AELP
8 to use more costly backup diesel generation to supply most of Juneau's energy. There is
9 no road access to the line and repair work requires access by helicopter and is limited to
10 safe flying and work-site conditions.
11

12 **Q9. Please elaborate on the need for backup diesel generation in AELP's system.**

13 **A9.** As previously described, AELP is electrically isolated and completely self-reliant.
14 Further, 94 percent of AELP's hydro resources are in remote locations and the energy
15 from those resources are delivered to the community on the same transmission line. In
16 order to meet its responsibility of providing reliable service to its customers, AELP must
17 have 100 percent backup generation capacity to meet peak demands during periods when
18 hydro energy delivered on the transmission line is unavailable. Therefore, AELP adopted
19 a policy to maintain standby generation sufficient to back up 100 percent of the needed
20 power from Snettisham and Lake Dorothy without its largest single standby unit.
21

22 As I mentioned in my May 2010 prefiled direct testimony in Docket U-10-029, AELP
23 had at that time already recognized the need for additional standby diesel generation and
24 was proceeding with required air quality studies and permitting. AELP is now
25 completing construction of that new backup diesel unit. The addition of this unit to
26

AELP's existing backup generation fleet will enable AELP to meet firm customer demands under peak conditions and is strategically located to prevent generation shortfalls in the event that the Mendenhall Valley is separated from other generation resources.

Q10. What would be the potential consequences if AELP did not add the new backup diesel unit to its standby generation fleet?

A10. Regardless of mitigation measures, electrical systems are always vulnerable to outages caused by a variety of circumstances. AELP's existing standby generation fleet has aged and, even with fluctuations in load growth, firm loads in Juneau have grown over time. AELP has experienced situations where backup power could not be provided to all firm customers under certain circumstances. If existing backup equipment or certain transmission segments failed under adverse weather conditions, AELP would have to resort to rolling blackouts until hydropower was restored or backup equipment was repaired. With many homes heated solely by electricity and most oil boilers dependent on electricity to supply fuel and to circulate heat, AELP's ability to provide safe, reliable and sustainable electric service would be significantly impaired if it did not address the potential shortfall in backup energy capability.

Q11. Please describe how AELP's capital expenditures affect electric rates.

A11. AELP's mission and obligation as a utility are to provide safe and reliable electric service to customers within its service area. In meeting that objective, AELP spends millions of dollars each year on new construction and replacing aging infrastructure. In the six-year period since AELP's last rate increase, AELP has invested over \$50 million in new and replacement capital projects.

1 The cost of new construction and equipment is greater than the cost of the equipment it is
2 replacing, and that puts upward pressure on electric rates. AELP needs to recover, over
3 time, the investment costs it has expended in order to be able to continue to maintain its
4 system, meet its commitment to provide safe and reliable electric service, and maintain
5 its financial viability.
6

7
8 **Q12. What has AELP done to help offset rate increases to its firm customers?**

9 A12. Among other things, AELP has connected interruptible customers within its service area
10 to optimize the use of hydroelectric resources while providing capacity for firm load
11 growth.
12

13 **Q13. What advantage do interruptible customers provide to firm customers?**

14 A13. Hydroelectric projects provide the lowest cost per kWh to consumers when they are
15 operated at full capacity. The feasibility of Lake Dorothy was dependent on having a
16 market for the surplus energy available in the early years, resulting in a lower cost to firm
17 customers. Interruptible sales afforded AELP the opportunity to invest in a resource that
18 provides low-cost hydroelectric generation to firm customers today, and a growing
19 number of firm customers in the future. For that purpose, AELP negotiated power sales
20 agreements for interruptible service to Greens Creek Mine and Princess Cruise Lines.
21 Special interruptible tariff rates are also available to customers, such as the Juneau
22 Federal Building, the University Library and multiple residential customers with dual fuel
23 heating systems. Every dollar paid by an interruptible customer is a dollar that firm
24 customers do not have to pay.
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1
2 **Q14. Since AELP's last rate increase, AELP's indirect ownership has changed. Please**
3 **describe the change.**

4 A14. AELP's stock is owned by Alaska Energy and Resources Company ("AERC"). Effective
5 July 1, 2014, Avista Corporation ("Avista") acquired AERC. Therefore, AERC is a
6 wholly-owned subsidiary of Avista, and AELP is a wholly-owned subsidiary of AERC.

7
8 **Q15. How has the change in AELP's indirect ownership changed AELP's operations?**

9 A15. Not much has changed. AELP continues under essentially the same employees,
10 including the same managers, it had prior to the merger, with no changes in day-to-day
11 operations. Other than the seat held by AELP's general manager, the board of directors
12 of AELP have changed; those positions are now held by senior managers of Avista.

13
14 Because the new directors are existing senior managers of a regulated utility (which is
15 much larger than AELP), they have an excellent understanding of the intricacies and
16 issues facing AELP. The corporate cultures of AELP and Avista are remarkably similar
17 and the companies are a good fit.

18
19 **Q16. Are there ways in which Avista's indirect ownership has benefitted the customers of**
20 **AELP?**

21 A16. Yes. Although the day-to-day operations have not changed much, AELP's customers
22 have already benefitted financially from the merger.

23
24 The Application for Approval of Acquisition of Controlling Interest in AELP, filed in
25 November 2013 in Docket U-13-197, at page 21 states "Unrelated to this proposed
26 transaction, AELP currently plans to file a general rate case in 2014." However, due to

1 the merger-related change in AELP's capital structure, the need for a rate increase in
2 2014 was negated.
3

4 Also, AELP customers have benefitted from some economies of scale by virtue of
5 Avista's ownership. AELP's property insurance coverage is now combined with Avista's
6 coverage, offering lower pricing opportunities not available to AELP when it was on its
7 own. AELP has also experienced some other vendor discounts due to the change in
8 ownership structure. Because regulated utilities recover their prudently incurred costs,
9 without a markup, the reduction in the above-described costs is a direct benefit to
10 AELP's customers.
11

12 Q17. Do you have any further comments on AELP's proposed rate increase at this time?
13

14 A17. AELP is proud of its commitment and progress toward the pursuit of its corporate goals.
15 AELP has among the lowest average electric rates of major regulated utilities in Alaska,
16 as shown in Exhibit TDM-1. AELP has a good safety and reliability record and will
17 continue to seek improvement. Periodic rate adjustments are necessary as AELP is
18 subject to cost increases and the need to replace and expand plant assets, and requires
19 rates that will allow it to attract the capital necessary to provide safe, reliable electric
20 service and successfully sustain the utility's long-term financial soundness.
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22 Q18. Does this complete your testimony?
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24 A18. Yes.
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2015 Residential Utility Cost in Cents per kWh for the Largest Regulated Utilities in Alaska

Based on 2015 data as reported to the Regulatory Commission of Alaska
(*National Average from Dept of Energy)

