

---

COMMENTS: (Continued)

Just another benefit for a company hundreds of miles away.

Tourists, of course, have no desire to see such views.

Again, please drop this project.

Sincerely,

T. Sturgeon

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DOCUMENTATION OF PUBLIC COMMENTS  
ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE FEASIBILITY STUDY

RECEIVED  
APR 23 1993  
ALASKA ENERGY AUTHORITY

You are invited to comment on the proposed Copper Valley Intertie Project which would consist of a 138-kV electric transmission line from Sutton to Glennallen. The Alaska Energy Authority is conducting the first Phase of a planned two-phase feasibility study of the Intertie. Two sets of public meetings will be held in Phase 1 at which comments may be voiced. Phase 2 of the feasibility study will follow in the second half of 1993, if funding permits, and would include one additional set of public meetings.

The comments of all parties who may be affected by the construction and operation of the Intertie are important to the study. Verbal comments will be recorded at each public meeting. In addition, this comment sheet is provided as a convenience to any party wishing to comment. However, use of this comment sheet is not necessary in order for your comments to be considered. We request that any comments be as specific and detailed as possible. Do not feel limited by the space provided; attach additional sheets as necessary. Attached for your reference are seven maps showing two preliminary route alternatives identified as a starting point for the feasibility study.

Please submit your comments as soon as practical to the following:

Mr. Richard Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, AK 99519-0869

Comments will be included in the reports provided they are received at least two weeks prior to the publication of the reports. Tentative dates are June 15, 1993 for the Phase I report and October 1, 1993 for the draft Phase 2 report.

Name of Person Commenting: CHUCK SPAULDING

Mailing Address: P.O. Box 1129  
CHICKALOON, AK 99674

COMMENTS:

*From an economic view, I believe this intertie will be a hindrance to tourism in this area. Unlike other locations in the state; the Matanuska River Valley has no salmon fishing, and no spot-light destination. It is a beautiful through-fare with recreational potential that is being slowly developed by small businesses like guide services, river tours, horse back, mountain biking etc. and lodges. The scenic*

Continued on Back

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COMMENTS: (Continued)

value of this area is paramount to its future. I believe that it is impossible to hide the interest from this relatively narrow view shed,

Maintenance roads and the easement itself poses increased pressure on hunting on this area that has already seen vast increases from urban hunters. All-terrain vehicles will access more area as well, and intrude on the goals and objectives of the lifestyle chosen by residents.

I believe the coal fired power plant owned by Hobbs Industries should be looked at closer especially in the event that natural gas should ever be available in the future.

I am concerned about the ~~to~~ unknown health risks associated with the electromagnetic fields of the line.

I am concerned that the residents of Copper Valley who do not pay local taxes benefit far more than we who do pay taxes locally. Controlling the increases of electrical costs just becomes another subsidy for their choice of habitat.

We gain ~~no~~ nothing from this interest and ~~the~~ lose alot. from our investment in this valley. should it proceed.

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APR 28 1993  
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Name of Person Commenting:

Jane Larson

Mailing Address:

P.O. Box 3891

Palmer, Ak. 99645

COMMENTS: My husband and I are very much opposed to this power line running through the residential area of Chickaloon. We fear for the safety of our young children, as well as for the many developing children in the area. The Copper Valley Electrical Association is telling the legislature that the line does not run within a mile of any residence. Yet the proposal is  $\frac{1}{2}$  mile from our house.

Alaska is a big state. Is it necessary for this transmission line to parallel so close to residential communities? We value a rural lifestyle that

Continued on Back

we worked hard to develop for our children. This line not only endangers our children through effects of electromagnetic fields on developing bodies, it also destroys the esthetics of a wilderness area, and lastly develops a corridor for inconsiderate, urban ATV riders to roar through our neighborhood.

We understand that others want cheaper electrical power but is it necessary to devastate our communities in the process? I thank you for your time and any assistance you can give us in preventing this line from being run near our community.

*Jane Larson*

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DOCUMENTATION OF PUBLIC COMMENTS  
ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE FEASIBILITY STUDY

MAY 04 1993

ALASKA ENERGY AUTHORITY

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Anchorage, AK 99519-0869

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Name of Person Commenting:

Douglas A. Thiessen

Mailing Address:

HCD3 Box 8392

Palmer, AK 99645

COMMENTS:

Mr. Emerman,

As a resident of the Glacier View Community, I would like to voice my opinion on the Sutton-Glennallen Intertie. I question the feasibility of an intertie 20-30 yrs down the road. In the short run, an Intertie could be feasible + the least expensive avenue, but in 20-30 yrs the power needs are likely to be different, so I would recommend that you study other alternatives to make the Copper Valley less dependant on power that is generated so far away from their service area. I also oppose <sup>Continued on Back</sup> that is generated (in Mil G. V. Int., Rible Canyon) Thank you. Douglas Thiessen

Mr Richard Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, Alaska 99579-0869

May 1, 1993

I live at mile 92 of the Glenn Highway and would like to state my opinion on the Sutton-Glennallen Inter-tie. Like many residents, I am opposed to the Inter-tie going through any of the Matanuska Valley. The Glenn Highway is one of the prettiest highways in Alaska. It follows the Matanuska River valley and offers splendid views of the Chugach & Talkeetna Mountain Ranges & the Matanuska River which provides recreational opportunities for many Alaskans & tourists. The valley also offers photo opportunities of 3 glaciers - the Matanuska, the Nelchina & the Tazlina Glaciers. There are few roads in Alaska that has so much beautiful country - so natural as the Matanuska Valley and the Glenn Highway. I would hate to see that destroyed by a huge 138-KV electric transmission line running through any part of this valley. The beauty is not concentrated in one area of the valley, but is the whole length of the highway from Sutton to Glennallen.

I've been a resident of the Matanuska valley since 1988. I moved to the valley because of its beauty. It's not easy living here as it is so far from work prospects, but it's a choice I am glad I made. If the inter-tie comes through the valley it will destroy the reason I moved here. I own 40 acres of land & do not want to have a huge powerline humming over me or in my view. It would destroy the dream I have finally accomplished. I receive no benefits from the inter-tie. Half of the people affected will not benefit.

I realize that the residents of the Copper Valley need another source of energy. I am not against that, but I would like to see more research done on alternatives to the inter-tie. Have the following been thoroughly studied:

① NATURAL GAS from Alyeska. Seems that natural gas would be a better source of energy for CV residents than electricity. With the natural gas being wasted in Valdez - just burned off.

② COAL

After alternatives have been studied & no other options can be found, then the inter-tie should take a route completely out of the Matanuska Valley. There is a proposed route north of the valley through other valleys. I know it would cost more, but the beauty of the Matanuska Valley is worth the expense.

Please help us, the residents of the Matanuska Valley, protect what we moved out here for - the natural beauty & quietness of the Matanuska Valley. Come visit, see for yourself what is at stake!

Thank-you,  
Deborah Mcatee  
P.O. Box 1124  
Chickaloon, Alaska 99674

Deborah Mcatee



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ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE FEASIBILITY STUDY

MAY 10 1993  
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Anchorage, AK 99519-0869

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Name of Person Commenting: William Schmittkunz  
Mailing Address: Box 26  
Sutton, Alaska

COMMENTS:

I support the Sutton Community Council Resolution 93-06  
opposing the Copper Valley Intertie and I am  
strongly encouraging alternative energy sources for CUEA. Continued on Back



# Alaska Center for the Environment

519 West 8th Avenue, Suite 201 • Anchorage, Alaska 99501 • (907) 274-3621

May 19, 1993

Ron Garzini, Executive Director  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, AK 99519-0869

RECEIVED

MAY 21 1993

ALASKA ENERGY AUTHORITY

Re: Proposed Glennallen to Sutton Intertie

Dear Ron:

We learned too late to attend any of the AEA's March public meetings that the idea of a Glennallen to Sutton intertie had been resurrected. Subsequent to that, we learned that legislative funding was being sought before the feasibility studies were completed. That caught us by surprise--and disturbed us--since seeking funding seemed to cast into doubt the objectivity of the feasibility studies and suggested that the Authority might already have made up its mind about the proposal. Many of us then contacted the legislature, but of course it was difficult this year to convince that body not to spend money, regardless of how well or poorly justified the spending proposals might have been. We're hoping that in future years the legislature will be more responsible.

We oppose this proposal. Based on earlier analyses, we doubt that it has a positive cost benefit ratio, or if it does, that it is as favorable a ratio as other alternatives. We have not seen, incidentally, any mention of end-use conservation programs in the meeting transcripts we've reviewed so far. We're curious about the fate of the recommendations staff made to the board on September 20, 1989 regarding these programs (#4 at page 25). What was the board's response? Were these programs ever implemented?

At the present time, however, what we're most knowledgeable about are the very substantial adverse impacts that would result from any routing between Glennallen and Sutton. It appears that to date you might have heard mostly from residents who very understandably do not want the line to run near either their homes or the highway they frequently travel. Local residents are concerned about their health, the degradation of the area's extraordinary scenic beauty, and the effects the latter will have on both recreation and tourism.

None of these concerns are limited to local residents only. We hoped several years ago, and still hope, that the Glenn Highway could receive a scenic designation that would preserve some of the most beautiful views in Alaska. This is important to locals, the thousands of Alaskans who drive the highway, and tourists whose first impressions of our state are received along the Glenn. The

Parks has been badly degraded by unregulated development. We'd hate to see that happen on the Glenn.

Finally, it is far from true that no one would be affected by a routing away from the highway, including behind the mountains. The historic Chickaloon Knik Nelchina Trail would be badly impacted, as would the legislatively designated Nelchina Public Use Area, one of the most popular and beautiful hiking trails in Southcentral Alaska (Hicks Creek/Chitna Pass - we've included for your information a copy of the trip description from the Southcentral hiker's bible, **55 Ways To The Wilderness**), and many other popular and scenic trails and landmarks.

Alaska is blessed. It is the least developed state in the nation. With a little work it's still possible to get into areas where relatively few people will be encountered, and roads, power lines, and other manmade facilities are non-existent. It is exactly because relatively few people will be encountered in the Talkeetna Mountains that they are such a valuable resource for both Alaskans and visitors. It is ironic that it is precisely that quality which causes you to recommend them as a possible location for a large power line. We are adamantly opposed to siting the intertie there, as are many other Alaskan individuals and businesses who recognize what an irreplaceable treasure the Talkeetna's are.

This does not mean that we believe the power line should be routed in people's backyards or along the highway. We believe it shouldn't be routed--period. We certainly don't believe Alternative 1 is better than Alternative 2. In any case, to say that one route would degrade residents' homes and the highway, and the other would degrade the backcountry, is a false distinction. Both alternatives would degrade all of those areas significantly, but in differing degrees.

We were very pleased to see this proposal dropped several years ago, and hope that you will see fit to drop it again.

Sincerely,



Cliff Eames  
Issues Director

cc: Mike Wenig, Trustees for Alaska

7 CHICKALOON TO VALDEZ

# 48 Hicks Creek/ Chitna Pass

One-way trip 42 miles  
Allow 4-5 days  
High point 4700 feet  
Total elevation gain 4120 feet eastbound,  
3680 feet westbound  
Best late June-September  
USGS maps Anchorage D2, D3, D4  
Metanuska Valley Moose Range

The Talkeetna Mountains, which invite endless wandering, are a fascinating wilderness of peaks, tundra, alpine valleys, and clear mountain streams, many of them far from civilization. A nearly circular route is described. By using this trip as an access, many other trips, limited primarily by your time and food supply, can be planned from topographic maps.

According to old-timers, prospectors traveled on this trail in the early 1900s. The route took them from Knik (which in summer could be reached by boat) and Chickaloon, up Boulder Creek, over Chitna Pass, and along Caribou Creek to Alfred Creek (Trip 49). Their destinations were gold prospects and mines on Alfred and Albert creeks. Today these are off-road-vehicle (ORV) trails, still used by miners and by hunters in the fall.



Route to Chitna Pass, August (Simmernan photo)



*Crossing Boulder Creek channel, August (Simmernan photo)*

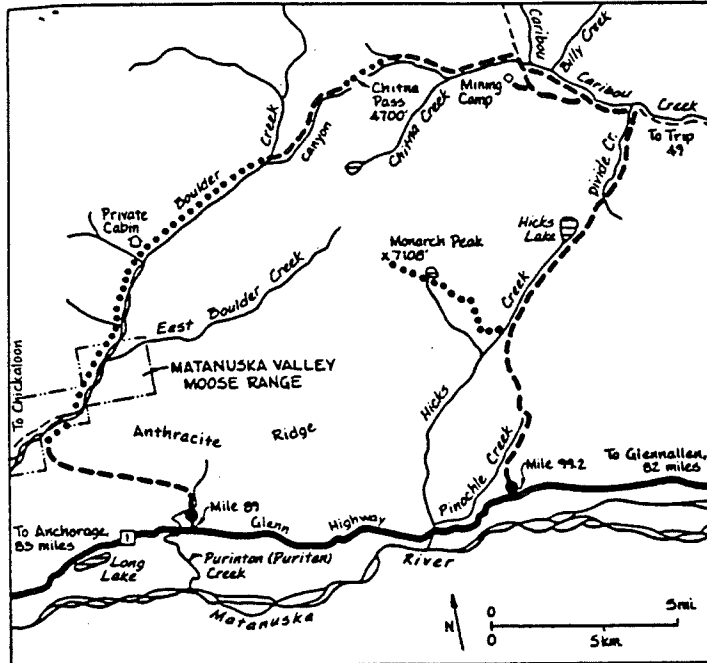
The route described here is not a marked, maintained trail but rather a collection of ORV, horse, and game trails. The trip is not for novices; it is possible to be confused about the route and become lost. A 1:53, 360 USGS topographic map is essential; help is far away. Experienced backpackers, in good condition and able to follow USGS maps, will find this a delightful experience, if they don't mind using ORV trails. Watch for caribou, moose, black bears, brown (grizzly) bears, Dall sheep, wolves, and coyotes.

From mile 99.2, Glenn Highway (99 miles northeast of Anchorage), opposite powerline pole no. 7746, turn north onto a dirt road. Park here (elevation 1776 feet), without blocking the road, or park south of the highway. The first section of the trail is known locally as either the Pinochle Creek Trail or the Hicks Creek Trail.

On foot, follow the dirt road north. It quickly becomes an ORV trail that climbs above timberline to a 3150-foot pass. The trail is deeply rutted, often mucky, and littered, but the total trip is worth this initial visual discomfort.

From the pass, the trail descends to Hicks Creek at 3000 feet. A side trip heads northwest across Hicks Creek to a small alpine lake (elevation 5000 feet), about 5 miles away (good camping, but no firewood). Monarch Peak (elevation 7108 feet), towering above the lake, is the highest in the area and a steep but easy climb.

The main trail continues to Hicks Lake. The route may change from year to year. Pick whichever side of the creek looks easiest to you. A good campsite is at the



south end of the lake. Beyond the lake the ORV trail crosses a low 3300-foot pass, then follows Divide Creek down to Caribou Creek (elevation 2800 feet), about 4 miles from Hicks Lake.

Follow the trail up the south side of Caribou Creek, passing good campsites. In 1½-2 miles, the ORV trail leaves the creek and heads southwest, paralleling the creek on high ground. Just before Chitna Creek, the trail forks; the right branch leads down to Chitna Creek.

A more difficult route that avoids the ORV trail continues along the south side of Caribou Creek. Just above the junction with Billy Creek, climb the bank to avoid cliffs and travel the bluff until the route below is clear. Do not cross Caribou Creek at any point.

Above the junction of Chitna and Caribou creeks, follow the south bank of Chitna Creek about half a mile upstream to the ORV trail crossing. Cross Chitna Creek; it is swift, but usually not deep nor difficult to cross.

The ORV trail continues north along Caribou Creek. **DO NOT FOLLOW IT.** At the top of the bluff on the north side of Chitna Creek, go left, off the ORV trail, and search for the foot trail that follows Chitna Creek.

The trail now blends with game trails, making it difficult to follow; but it does continue to Chitna Pass and is worth the search. About 2½ miles from Caribou Creek, turn northwest up a tributary of Chitna Creek toward Chitna Pass. At 3600 feet the

vegetation changes from brush to open tundra—and delightful walking. A gradual climb to Chitna Pass (elevation 4700 feet)—2½ miles away—leads to fine country for camping and exploring. Nearby 6000-foot peaks can be easily climbed. Drinking water is available, but firewood is not. Map reading skills are essential to find the drainages that lead to the pass.

Southwest of Chitna Pass the trail parallels a small creek. Where the stream enters a small canyon, about 2½ miles from the pass, the trail stays on a descending ridge northwest of the canyon all the way to Boulder Creek. It does not drop steeply to Boulder Creek directly west of Chitna Pass, as shown on the USGS map.

About 4 miles from Chitna Pass the well-defined trail ends where it enters the Boulder Creek gravel bars. Following the southeast river bank requires scrambling over bluffs, necessary perhaps if Boulder Creek is high and cannot be easily crossed. If the water level is low, walking the river bed, splashing across the braided channels, is the easiest way to continue. At higher water, cross Boulder Creek once, and stay on the northwest side where occasional stretches of a trail can be found. Some bushwhacking through alder or willow may be necessary. Camping is good on the river bar.

Just before reaching the bluff of Anthracite Ridge, cross Boulder Creek and find the Purinton Creek Trail on the east bank of the stream, at the base of the ridge. On some maps it may be labeled the Chickaloon-Knik-Nelchina Trail. Follow this trail south, then east to the Glenn Highway. The trail has a few boggy spots, but generally the walking is good. Little water is available; there are few desirable campsites. On a clear day the approach to the Purinton Creek trailhead is spectacular, with its panoramic view to the south of the rugged Chugach Mountains.

To reach the Purinton Creek trailhead by road, drive to mile 89, Glenn Highway. Parking is available in a pullout on the highway. About 100 feet east of Purinton Creek (highway sign reads "Puritan Creek") is a short dirt road heading north, then east. Follow the road, through private property (respect no parking and camping signs). The road becomes an ORV trail and ascends a very steep hill to the north. The trailhead elevation is 2200 feet.

The route can be used for ski touring, either as day trips from either trailhead or as a several-day trip for experienced ski tourers and winter campers. The route near the trailheads is likely to be packed by snowmobiles. In midwinter prepare for very cold weather as temperatures to  $-30^{\circ}$  F are not uncommon.

#### CHICKALOON TO VALDEZ

## 49 Syncline Mountain

Traverse or round trip 25 miles

Allow 3 days

High point 5471 feet

Total elevation gain: traverse over summit

4400 feet, round trip 3800 feet

Best June–September

USGS maps Anchorage D1, D2

The routes described here provide access into the back country of the Talkeetna Mountains, which are inhabited primarily by caribou, sheep, miners, and—during the last part of the summer—hunters. Part of the trip lies along the route of the old Chickaloon-Knik-Nelchina Trail, which provided access to gold mines on Alfred and Albert creeks before there was a Glenn Highway. Several different trips are possible, including a climb of Syncline Mountain and a traverse around the mountain. The climb is not difficult, offers nice views of the Chugach and Talkeetna moun-

P.O. Box 111944  
Anchorage, AK 99511  
(907) 345-1691  
May 17, 1993

RECEIVED

MAY 21 1993

ALASKA ENERGY AUTHORITY

Mr. Dick Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, AK 99519-0869

Dear Mr. Emerman,

Thank you for the set of maps of the Copper Valley intertie feasibility study.

As I mentioned, I am a property owner at mile 72 on the Glenn Highway (shaded area on the map). I first heard of the proposed transmission line on the local news around the 9th of May at my King Mountain cabin.

I object strongly to this proposed transmission line being constructed in this nearly pristine valley. I do not believe it is possible to place this line anywhere in the Matanuska Valley without creating an ugly scar on the land. I do not believe that this line will affect the view from any spot on my property, but we often take snow machine or three wheeler trips up Permanente Road and then up King River Valley. We cherish the scenery along the way and the view from high points on the trail. The lower part of the Kings River and Chickaloon Trail go through an area of untouched forest. This proposal may very well be feasible from an economic view point, but only if you do not consider the natural beauty of this area. I especially object strongly to segment S 2-31. It would intrude into an area of the moose range that is isolated by steep slopes, rivers and private land.

I think this proposal is short-sighted and disrespectful to the natural beauty of this valley. An underground gas pipeline along the Glenn Highway and more local power generating capability seems a more prudent alternative.

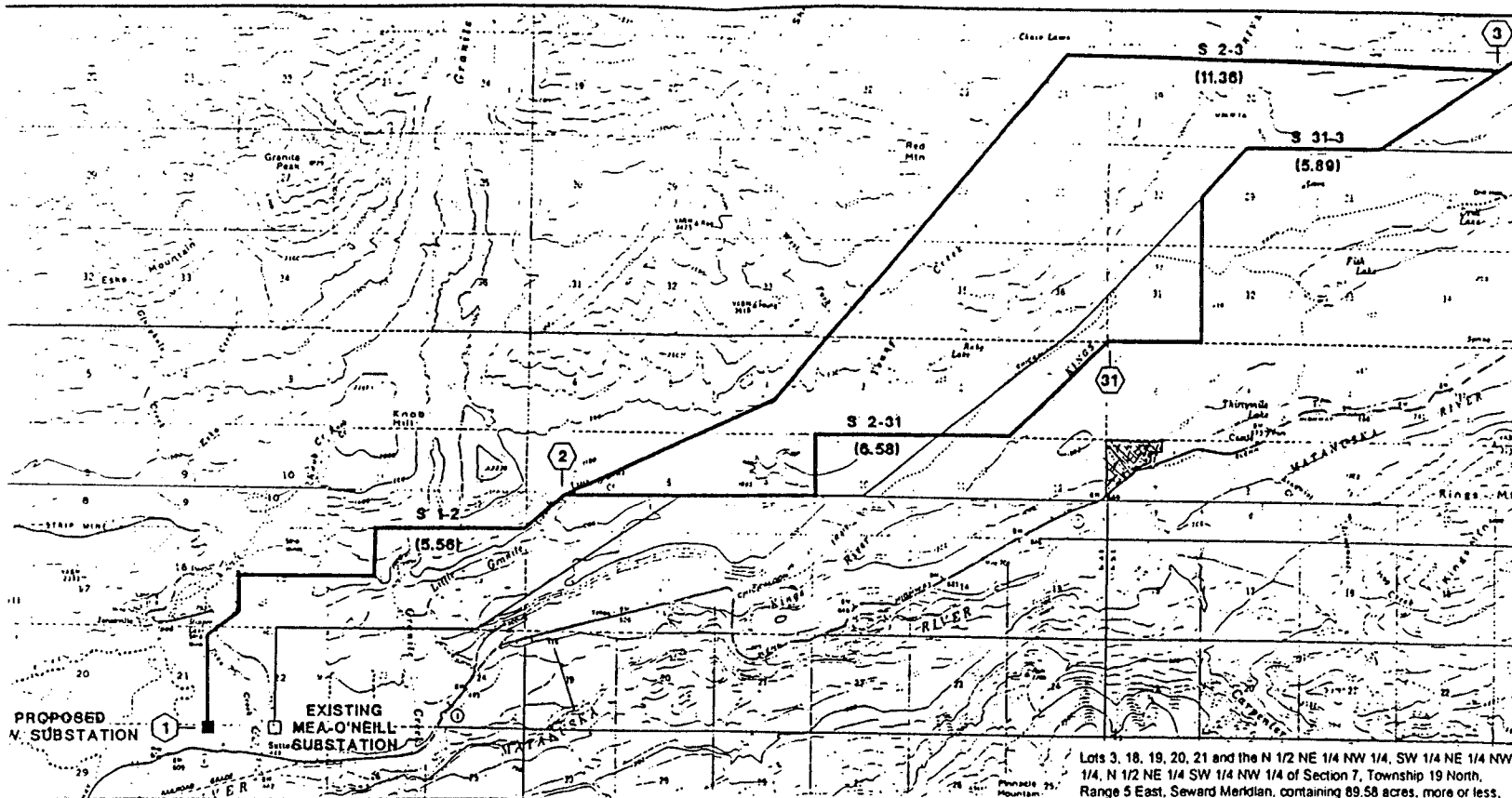
Sincerely yours,

*Kim A. Dodge*

Kim A. Dodge

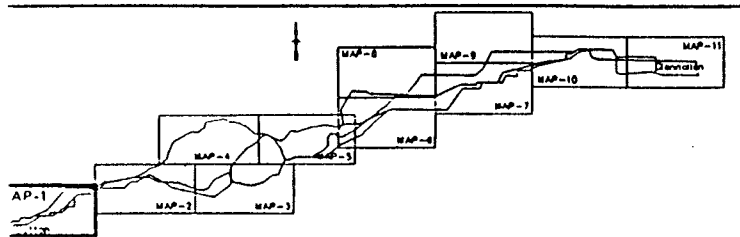
Enclosure



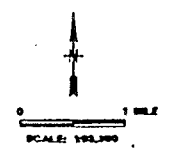


Lots 3, 18, 19, 20, 21 and the N 1/2 NE 1/4 NW 1/4, SW 1/4 NE 1/4 NW 1/4, N 1/2 NE 1/4 SW 1/4 NW 1/4 of Section 7, Township 19 North, Range 5 East, Seward Meridian, containing 89.58 acres, more or less, located in the Palmer Recording District, Third Judicial District, State of Alaska.

MAP INDEX



- LEGEND**
- ALTERNATIVE ROUTE SEGMENTS
  - - - ABANDONED ROUTE SEGMENTS
  - EXISTING SUBSTATION
  - PROPOSED NEW SUBSTATION
  - ① ② SEGMENT DESIGNATION BS-2, LA BETWEEN POINTS 1 AND 2
  - ③ MILEAGE BETWEEN POINTS IN 1



ALASKA ENERGY AUTHORITY  
 COPPER VALLEY INTERTIE  
 FEASIBILITY STUDY  
 STUDY ROUTE  
 ALTERNATIVES  
 MAP-1 OF 11 MAPS  
 MAY 1993  
**R.W. BECK**  
 AND ASSOCIATES

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Name of Person Commenting:

Suel D. Jones

Mailing Address:

HC 03 Box 8460

Palmer, AK 99645

746-0697

physical address - mile 105 Glen Hwy.

COMMENTS:

Please be advised that I am strongly opposed to the intertie. We who live along the Glen Hwy depend upon tourism, both in state & out of state, as the base of our economy. We do not have fishing to bring people to our part of Alaska.

Continued on Back

---

COMMENTS: (Continued)

What we have to offer is a scenic view unique to any road system in the state. The stretch of highway from Glennallen to Sutton is the most beautiful approach to Anchorage. This includes any part of the Alcan. What more can be said than this area is unique. It must remain pristine & serene. There is a coal generator near Golgana sitting idle. Why not put it to use? Why allow a white elephant remain useless? There is no doubt that people in the Copper Valley need more & less expensive energy, but the proposed intake will not lower rates. Only 27 million has been offered by the state. This intake will cost much, much more than that. This means bonds must be sold in order to finance the entire project. Who will pay off this debt? The electrical user. Rates would have to be raised to pay this off. Think! Think, before building a project that will destroy a unique area, affect the livelihood of the residents & raise rates for all energy users.

---

May 28, 1993

David G. VanCleve  
Mile 2.8 Fish Lake Rd.  
Chickaloon  
P.O. Box 366  
Sutton, AK 99674

RECEIVED

JUN 07 1993

ALASKA ENERGY AUTHORITY

Richard Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, AK 99519-0869

Dear Mr. Emerman:

These are my comments on the Copper Valley Intertie. I attended the meeting held at NOVA River Runners a few weeks back and was interested to note that those most interested in seeing the intertie go through our community were the least interested in considering any alternatives to the new construction option. However they may have protested to the contrary, it was plain to me that A.E.A. and the power companies had already made a decision in favor of new construction. It was my observation and "gut-feeling" (accurate or not) that Copper Valley, M.E.A. and A.E.A. representatives were not there to listen but to get a feeling for the kind of strategy that might be required to steamroll the community with an economic boondoggle that will severely limit our economic options.

This is a young but organized community with a history of consensus style decision making. This kind of cooperation among the members of our community did not come easy but was the result of an effort to keep this sort of destruction of our lifestyle from taking place. It took three years, we are the first small community in the borough to take this step by developing a comprehensive plan. It is a well thought out and reasonable document. I would suggest that you read it and see if you can come up with some suggestions that would conform to it.

The Copper Valley Intertie will destroy not only the environment of what used to be called "Paradise Valley" but also any sustainable economic enterprises that could have been based on the natural beauty of the Chickaloon area. If this intertie goes through the opportunity costs to the state and the community will be much greater than the costs of finding an alternative to this needless capital expenditure. Chickaloon alone not only will be unable to capture tourist dollars, particularly from recreationists from the Anchorage bowl, but will not benefit for long from the construction itself. The access created by the right-of-way will open the area to further degradation by O.R.V. traffic.

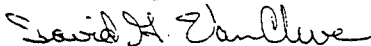
I made the suggestion previously to the A.E.A. representative, M.E.A. and the people of Copper Valley, when they were present at the NOVA meeting, to seek a way to alter the contract Copper Valley says they have with the State of Alaska to consume power from the

Solomon Gulch Dam so that they can take advantage of the power plant constructed by Hobbs Industries. That is a power source that already exists in the Copper Valley area. It appeared to me that this idea was rejected out of hand so I make it once again for the record.

The idea that it is a waste of railbelt money to promote and facilitate energy conservation is "pure baloney." I suggest that a representative from the Rocky Mountain Institute in Snowmass, CO be contacted to conduct an inventory the energy saving alternatives to the Copper Valley Intertie. The Rocky Mountain Institute is composed of respected experts in the field of energy conservation and was founded by Amory and Hunter Lovins noted authors and researchers in the field. R.M.I. also promotes community development and can facilitate consensus building activities among the interested entities which in the long-run will most benefit the entities concerned and the State of Alaska. I also suggest that we discuss and decide the best way to implement these alternatives not only for Sutton, Chickaloon, Glacier View, and Copper Valley, but the entire railbelt area.

In short I am opposed to the construction of the intertie. This project will result in a net loss not only for the people of Chickaloon but the people of the State of Alaska. It's just plain and simple an irresponsible waste of money. Spend the money on a constructive process of consensus building, energy conservation, and sustainable economic development. I respectfully submit these comments for your consideration and hope the result of this process will be acceptable and beneficial to everyone involved.

Sincerely,



David G. VanCleve

DOCUMENTATION OF PUBLIC COMMENTS  
ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE FEASIBILITY STUDY

RECEIVED  
JUN 01 1993  
ALASKA ENERGY AUTHORITY

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Mr. Richard Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, AK 99519-0869

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Name of Person Commenting:

MARK SWANSON

Mailing Address:

P.O. BOX 156

DELTA, AK 99575

COMMENTS:

I AM OPPOSED TO THE INTERTIE PROJECT. THE PROPOSED LINE WOULD DIRECTLY AFFECT MY HOME AND FAMILY. IT WOULD FORCE ME TO ABANDON MY HOME, AND WHERE WOULD I GO. I'VE SPENT THE LAST EIGHT YEARS IMPROVING THE LAND FOR NURSERY PRODUCTION AND A SAFE ENVIRONMENT FOR MY CHILDREN. THIS INTERTIE WOULD TAKE

Continued on Back

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COMMENTS: (Continued)

IT UNSAFE TO LIVE WHERE I HAVE CHOSEN  
TO BUILD AND LIVE FOR A LIFETIME. I FIND  
IT IRONIC THAT A POWERLINE COULD CAUSE ME  
TO MOVE WHEN THE POWER COMPANY HAS MADE  
IT IMPOSSIBLE FOR ME TO AFFORD POWER TO  
MY HOUSE. I FIND THIS VERY WRONG. I  
THINK THERE MUST BE OTHER ALTERNATIVES  
TO THIS PROPOSAL. THANK YOU FOR TAKING  
THE TIME TO READ THIS.

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JUN 08 1993

ALASKA ENERGY AUTHORITY

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Name of Person Commenting:

Sharon McEntee

Mailing Address:

P.O. Box 4

Sutton, Alaska 99674

COMMENTS:

Mr. Emerman,

P. J. Hill is much more  
able to describe the  
many reasons this  
Intertie is a ridiculous  
scam. Please consider  
these comments, opinions  
and information carefully.  
Sharon McEntee

Continued on Back



## Interties not deserving

Mike Doogan has been trying to nickel and dime us in making suggestions to the governor for state budget cuts. So far he has recommended cuts of approximately \$80 million — \$500,000 here and \$50,000 there. He has yet to suggest the cut that would save \$175 million — the legislative appropriation for electrical interties. If any part of the budget has a weak claim on public funds, the interties are it.

Most of these funds will be used to finance intertie transmission lines and related equipment between Anchorage and Kenai, Fairbanks and Healy, Glennallen and Sutton, and one near Ketchikan. These interties will supposedly increase the reliability of the electrical system so that there will be fewer power outages.

The primary question is whether electrical power is a deserving candidate for public funds. Typically, government intervention is justified when the market is unable to solve the problem of providing goods or services.

Market failures occur when it is difficult to charge for goods or services provided to consumers. Police and national defense are good examples. It would be difficult to have people voluntarily pay for these services because once they are provided they are available to all. The market fails because everyone tries to be a free rider — government should provide goods when the market can't.

However, it is not possible to be a free rider with electrical power. Consumers pay their bills because their power will be cut if they refuse. The market works.

Legislative appropriations for interties reflect the political acumen of the power lobby, the local power companies and the construction companies who would build these lines.

The cost of these projects is what Alaskan will forgo to pay for these interties. How many schools — which have a stronger claim on public funds — could be built for \$175 million?

What are the additional benefits that will be generated as a result of these lines — increased reliability for electrical consumers? When was the last major power outage that occurred as a result of a failure in the already-existing ~~transmission system~~? Most power outages in Anchorage occur as a result of failures in the local distribution systems, not in the interties. The big failures last winter would still have occurred if the proposed \$175 million projects had been in place.

The state is proposing to spend \$350 for every man, woman and child in the state on interties. A family of four would be better off spending \$1,000 on a portable electrical generator (they'd have \$400 remaining), than having the state fund the interties. Generators would protect consumers against the failures in the local distribution systems, something interties fail to do.

These intertie projects are not deserving of public funds. If these projects made economic sense they could be funded



through private capital markets, but projects that make little economic sense find funding to be much more problematic.

The electrical power interests find it is easier to lobby for "free" money in Juneau, rather than ask their customers to pay for projects of dubious value through their electric bills.

Please Mike, get to the main course. Suggest that the governor sort out the strong projects from the strong lobbyists where there is real money involved. The \$175 million could be spent in other ways, and provide far more benefits to the citizens of Alaska.

The powers that be need to figure out where government is efficient and effective, and where it is not. Taxpayers and school children should not be put in the position of subsidizing electrical consumers with illusory benefits.

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P.J. Hill is an economist at the University of Alaska Anchorage and teaches a course on public finance.

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JUN 10 1993

ALASKA ENERGY AUTHORITY

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Name of Person Commenting: Shirley A Swanson

Mailing Address: 2685 B Newbury Circle  
Burlington, Iowa 52601  
PH: 319/752-8072

COMMENTS: JUNE 6, 1993  
Dear Sir:

Knowledge of the Copper Valley Intertie Project has reached me through my son & family (Mark/Becky & Amos Swanson) who live near Sutton, Ak. Their 10 acres of property joins the current power line area and the new proposal would put them at (possible/probable) risk to continue to live there.

Mark & Becky Swanson (age 32) are IOWA people who were lured to Alaska in 1985 by "THE LAST FRONTIER" calling them to a life style they wanted and preferred. They are truly pioneers fulfilling a wish that began only in the day-dream mind of a grade school student thinking "wouldn't it be great to live in the North Country -- Alaska"!

Continued on Back

Upon graduation from the Univ. of Minnesota in horticulture they flew to Alaska with high hopes of adventure and hard work. Like all pioneers of the frontier they did have adventure, hard work, disappointment & set backs. In 1987 they chose

COMMENTS: (Continued)

10 acres of wilderness/frontier land; bought it and started planning for their future home. They were so proud & of course the envy of many who for one reason or another, didn't or wouldn't or couldn't do such a thing. The bottom line being "the Alaska Frontier" made it possible. They did clear the land and build a house, just the two of them doing all the work by hand, taking 1½ years to complete.

Moving day was Nov. 8, 1988 and I (proud MOM) was there when the stove pipe on the cookstove was hooked up and we spent the first night in their home. They chose the 10 acre homesite near Sutton knowing that Mark had to drive to Anchorage everyday to work at UAA and Becky drove to Palmer for work at the Alaska State Fair grounds where she plans, designs and heads up the beautiful flowers & vegetables you see at the Alaska State Fair each year. Becky even created and designed the Scarecrow Family (Bernie/Millie & children) you've seen at the fair.

Their home near Sutton is truly a picture perfect setting and like a page out of a Better Homes & Garden magazine. They built this home by themselves; building a road from the highway and designing the home of approximately 600 sq ft. They cook and heat with the wood cookstove and light the kerosene lamps; clear the many feet of snow and walk the long trail to their house in the woods because they choose to do this in "the last frontier". In April of 1992 a baby boy was born and they began plans for adding a 'baby room' to their already two-room house (this room now almost completed). They spin wool into thread and make their sweaters; grow their own spice/herb garden for cooking and making a diaper rash salve. They split wood with an axe and bake bread on the wood stove. They are living the motto of ALASKA ---- THE LAST FRONTIER !! in everyday life.

Of course - I'm prejudice !

This is a proud Mom/Grandma seeing the good life being lived and worked through the opportunity of the frontier. What a lucky little one-year-old boy, Amos Swanson, has to gain from the good life on the frontier.

This home cannot be moved from their property and the challenge of a dream come true would be only a memory if they cannot live in the home they built from scratch. They would survive but "the last frontier" motto of Alaska would be a broken dream that cannot be replaced for them.

I have visited them in their home and of course know all the pride they have in their home & family. I challenge one of your staff to visit their home! To see the home and the beautiful flower garden and to walk the trail and see the view.

I urge you to reflect on the lifestyle and family of Mark & Becky Swanson and baby boy, Amos, as well as others effected by this proposed Copper Valley Intertie Project. Please consider the cost and risk of such a project on "the Last Frontier".

The many friends and relatives living in Iowa are proud of their young people who want to live the good life today and we want ample opportunity for this to keep on happening.

We are proud to tell people "THE LAST FRONTIER" is still here. Most people just like to visit such --- but few want to live it.

----- a letter from MOM,  
on behalf of MARK and BECKY SWANSON

and 1-yr-old Amos

Sincerely,

*Shirley G. Swanson*

Mark/Becky Swanson  
P O Box 938  
Palmer, AK 99645  
PH: 907/745-1620



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JUN 14 1993

ALASKA ENERGY AUTHORITY

*Wayne Clark*  
P.O. Box 313  
Sutton, AK 99674  
June 3, 1993

Mr. Richard Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, AK 99519-0869

Dear Mr. Emerman:

I am writing you in regards to the Copper Valley Intertie.

I live on my homestead located just off the Glenn highway and right next to the Permenete Road. I am gravely concerned about the proposed locations for the intertie, as well as the true need for even having it.

First I question the areas where this huge monstrosity would be strung. We all live out here for the beauty and solitude of Chickaloon. This intertie would visually pollute our view of the beautiful valley and river below. I would live in Anchorage if I wanted to stare at towers and power lines.

Next is the safety factor. Studies have shown that those people living in the shadow of high voltage power lines have a higher incidence of leukemia in young children. That is just the tip of the iceberg. What bothers me is what we don't know about the affects. It's hard for city dwellers to believe, but, yes, there are actually people that live and work out here year-round. Then there are all the other residents. I'm talking about the multitude of wild creatures that also call the mountains and rivers their home. The construction of the intertie will disrupt their delicate habitats and sentence them to live underneath high voltage electricity the rest of their short lives. Who will speak for them? We will.

Last, I am not convinced that this project is truly necessary. The current pro-development climate in this state makes me think this intertie does nothing more than provide jobs to keep the state machine churning. Is there a true need? If so, I would appreciate some information on where I might find the statistics that support the claim that Glennallen and Delta are starved for power.

It doesn't take a genius to figure out why, wherever there are high voltage power lines erected near residential communities, property values plummet. It's ugly and unhealthy. This drop in value has happened across the country over and over wherever these lines have been put up.

I would greatly appreciate any further information you may have on the subject.

Thank you for your time.

Sincerely,

*Wayne Clark*  
Wayne Clark  
Chickaloon Resident

*Dave Harrison*  
Chickaloon Village Treasurer - Chickaloon Moose Creek  
Native Association Inc. President

*Warren J. Stoff*  
Chickaloon Resident

*Susan Archer*  
Concerned Human Being

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DOCUMENTATION OF PUBLIC COMMENTS  
ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE FEASIBILITY STUDY ALASKA ENERGY AUTHORITY

JUN 21 1993

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Anchorage, AK 99519-0869

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Name of Person Commenting:

Ken RYAN

Mailing Address:

BOX 190913

Anchorage AK 99519-0913

LANDOWNER-CHICKALOUN

COMMENTS: I STRONGLY OPPOSE INTERTIE BECAUSE

- ① It will wreck the pristine nature of my "BACKYARD."
- ② Makes no economic sense.
- ③ Will force others to subsidize CUE customers.

Continued on Back

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JUN 28 1993

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Name of Person Commenting:

MICHAEL H. EVANS

Mailing Address:

HCOI BOX 6205

PALMER, AK 99645

COMMENTS: WHAT seems like a LOGICAL SOLUTION that would BENEFIT every body involved, (not JUST GLENNALLEN) would to Build a Gas LINE from Palmer to Glennallen. AT the END of the GAS LINE in the GLENNALLEN area Build a gas powered POWER PLANT. It BELUGA HAS. ① This way GLENNALLEN would benefit 2 ways, a more reliable ELECTRIC SOURCE plus <sup>the people of</sup> an alternate energy source. ② Also the number of communities between the two <sup>cheaper</sup> points would benefit from the natural Gas. (They won't get any benefit from Continued on Back the Intertie) ③ The Gas line would be buried thus not creating the eye sore this Intertie would. ④ The monies would be spread out to more ~~comp~~ types of Contractors making it fairer for everybody.  
over



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COMMENTS: (Continued)

⑤ The power plant would create a number of permuate jobs for the <sup>and GAS LINE</sup> Glenmullen area, where when the intertie is done, its DONE. ⑥ When the GAS line is built from the NORTH SLOPE TO VALDEZE, then a ~~Gas~~ Nat. GAS GRID will be established. ⑦ The GLENN H.W. could be brought up to Fed Standards with matching Fed. monies (THUS creating more jobs) simultaneously with the Gas line construction, with the Gas line using ~~the~~ the newly improved Road Bed (and sharing some of Earthwork) along the H.W. route.

The INTERTIE seems like a QUICK FIX where the GAS LINE would have a long term Benefit for the whole area from Palmer to Copper River Valley. The Cost would be more - but there is still more money in the Rail Belt Fund to accodate this concept plus The Fed matching Funds for the H.W. Project.

IN Reguards to the EXISTING options for the Intertie proposed Routes - ~~I would support~~ the only route that I would support would be the Back Country route (I.E. Boulder Creek to Caribou Creek ~~and~~ etc.).

Thank you

Michael H. Evans

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June 1993

DOCUMENTATION OF PUBLIC COMMENTS RECEIVED  
ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE FEASIBILITY STUDY JUL 07 1993

ALASKA ENERGY AUTHORITY

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Mr. Richard Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, AK 99519-0869

Name of Person Commenting: Dianne Milic  
Mailing Address: P.O. Box 28  
Sutton Ak  
99674

COMMENTS:

Please Do NOT do this!

① My neighbors live in the range of the EMF and they are going to have to move back to Michigan.

② The school is too close for comfort.

③ The UGLINESS of man's powerlines on God's mountains will permanently scar this valley. (That I moved here for)

④ ~~WHY ARE YOU ASKING TO TORNAWANT IT!~~

⑤ I don't want my electric bill to reflect YOUR efforts to induce industry in Copper Valley.

⑥ This is supposed to be the last frontier - men in suits who don't care about anything but money - are doing this without the people's support! why not use coal? →

7. The high voltage wires will be an ENDLESS MAINTENANCE COST. We have high winds and heavy snows that cause intense drifting. They would also be targets for vandalism — NOT JUST BY KIDS EITHER. People have moved here to have freedom from big businesses

8. Did ANYONE ASK US IF WE WANT IT? IT IS BAD PUBLIC RELATIONS

9. We 29,000 users in the Mat Valley are being asked to <sup>(pay for)</sup> suffer for the 2,600 users in Copper Valley. 70 million dollars is \$26,923.07 per person. ARE YOU ALL CRAZY? That would be like introducing a project in the Mat Valley at a cost of 783 Million dollars. Where is the benefit?

10. THERE **HAVE TO BE ALTERNATIVES!**

11. Those high power lines are already ~~\_\_\_\_\_~~ DINOSAURS, in other parts of the U.S.

12. We already need energy assistance because of the high unemployment rate. Have you considered a rate ~~\_\_\_\_\_~~ hardship on the unemployed?

Mr. & Mrs. Kenneth R. Cobb  
3126 Tamworth Circle  
Anchorage, AK 99504-3733

RECEIVED

JUL 07 1993

ALASKA ENERGY AUTHORITY

7-1-93

Mr Richard Emeeman,

I would like to write some  
written comments as to the Sutton  
to Glennella Transmission line.

First off a little back ground of  
our property in Sutton. We looked for  
a piece of property like this one for  
almost 3 years and it seems to have  
just about everything we wanted for  
our retirement home, with our homebuilt  
Alaska Log. It has good land (which is  
20 acres) good trees, a creek running thru  
it, and a view of mountains around us  
also we have already worked every extra  
moment, cutting in a road, log archway at  
driveway entrance, rock flower bed at the  
entrance also.

We have all our plans drawn for our  
log house, and later small guest log cabin.

We decided to build our garage first  
so we would have winter projects and a  
place to keep a few tools.

The design of the garage was a flat  
roof so when our log ~~was~~ house was built  
we can walk out of the second level onto  
(1073)

Mr. & Mrs. Kenneth R. Cobb  
3126 Tamworth Circle  
Anchorage, AK 99504-3733

the roof of the garage to view the mountains to our North, which is where the proposed Power line is going to be now.

So our retirement home + view is starting to crack and the view spoiled by a large transmission line going to Glennallen? Why is it they can't get there own power source in Glennallen?

It seems this is a lot of Expense wire, towers + labor to run all the way to Glennallen -

Im sorry for the Electricians used in Glennallen but when they bought there, they knew of the power they had. just as I knew the view we have when we bought, so why should the people of Sutton, all the way to Glennallen be subject to this view of this transmission line?

Maybe Glennallen could pitch in + buy my property + all the work we have done there, should be a great resale with all those lines across the mountains! Not to mention all the reports of living under <sup>and around</sup> power lines can cause or enhance cancer!

(2 of 3)

Mr. & Mrs. Kenneth F. Cobb  
3126 Tamworth Circle  
Anchorage, AK 99504-3733

So you can tell by this short story  
Novel, I am enraged by this whole  
thing.

Glennallen is not my problem,  
and my view is my problem so  
lets take care of both problems  
& find another way to shine the  
lights in Glennallen!

So I ask for this because  
this will be my Retirement Home  
Soon, Don't make me start  
all over again looking & start  
to build all over again.

Ken Cobb  
Marie Cobb

cc: Home file

(3 of 3)

I feel there are other alternatives  
the people in the Copper Valley area  
can use to lower their power costs.

We have a beautiful and very  
large state. I feel it would be a  
great injustice to deface such a  
scenic + ~~gorgeous~~ gorgeous stretch of highway.  
There has to be an alternative.

Sincerely,  
Barbara Leppanen

June 1993

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Alaska Energy Authority  
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Anchorage, AK 99519-0869

Name of Person Commenting: Barbara Leppanen  
Mailing Address: Box 364  
Sutton, AK 99674

COMMENTS:

- I'm very much against this intertie project, for several reasons:*
- 1. I'm concerned about health risks to my young children.*
  - 2. I own a tourism business on the Glenn Hwy. It would be a true eye-sore to our beautiful area.*
  - 3. It would open up to much area for people to disturb the wildlife & hunting in our area.*
  - 4. What risks would it have on the wildlifes health, therefore leading to health risks to us.*

*ALLPR*



June 1993

DOCUMENTATION OF PUBLIC COMMENTS  
ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE FEASIBILITY STUDY

RECEIVED

JUL 12 1993

ALASKA ENERGY AUTHORITY

You are invited to comment on the proposed Copper Valley Intertie project which would consist of a 138-kV electric transmission line from Sutton to Glennallen. If you wish to submit written comment for consideration and inclusion in the feasibility study, please submit such comment as soon as practical to:

Mr. Richard Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, AK 99519-0869

Name of Person Commenting:

~~XXXX~~ Larry Leppanen

Mailing Address:

HC 03 Box 8220  
Palmer, AK 99645

COMMENTS:

I am against this intertie, for the following reasons.

1. Health risks to my family.
2. Impact on my tourism business.
3. Disturb wildlife & hunting areas.
4. Health risks to wildlife.

I'm sure there's an alternative for Copper Valley's electric problems. I feel they should have cheaper power, but not at our expense.

Larry Leppanen

June 1993

RECEIVED

DOCUMENTATION OF PUBLIC COMMENTS  
ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE FEASIBILITY STUDY

JUL 19 1993

ALASKA ENERGY AUTHORITY

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Mr. Richard Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, AK 99519-0869

Name of Person Commenting:

Sharon Dunlap

Mailing Address:

P.O. Box 17

Sutton, AK 99674

COMMENTS:

The intertie project is a very expensive project that would affect the wildlife and the land values around the intertie project. The negative results far outweigh the positive results in the project. The intertie is a waste of funds for the small community of Glennallen.

June 1993

RECEIVED

JUL 19 1993

DOCUMENTATION OF PUBLIC COMMENTS  
ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE FEASIBILITY STUDY

ALASKA ENERGY AUTHORITY

You are invited to comment on the proposed Copper Valley Intertie project which would consist of a 138-kV electric transmission line from Sutton to Glennallen. If you wish to submit written comment for consideration and inclusion in the feasibility study, please submit such comment as soon as practical to:

Mr. Richard Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, AK 99519-0869

Name of Person Commenting:

Margaret Dunlop

Mailing Address:

P.O. Box 17

Sutton, AK 99674

COMMENTS:

*The line is unhealthy, ugly,  
would disrupt hunting, and animal  
habitat.*

*Copper Valley has sufficient power  
now & this is just another project  
to line individual pockets.*

June 1993

DOCUMENTATION OF PUBLIC COMMENTS  
ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE FEASIBILITY STUDY

RECEIVED

JUL 20 1993

ALASKA ENERGY AUTHORITY

You are invited to comment on the proposed Copper Valley Intertie project which would consist of a 138-kV electric transmission line from Sutton to Glennallen. If you wish to submit written comment for consideration and inclusion in the feasibility study, please submit such comment as soon as practical to:

Mr. Richard Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, AK 99519-0869

Name of Person Commenting:

Ivan M. Gilliam

Mailing Address:

12301 Johns Road, #21  
Anchorage, Alaska  
99515

COMMENTS:

Own property near mi. 83, Glenn  
Lwy - Strongly oppose intertie  
going up main Mat-River corridor  
or w/in view of Bonnie Lake.  
Wage that other options be fully  
researched/considered to provide adequate  
power but to also bear in mind  
other factors such as natural beauty  
and tourism potential as well as  
resident satisfaction. Ivan M. Gilliam

6, Skitfield St,

London W12 0HN, U.K

5. 8. 93

RECEIVED

AUG 18 1993

ALASKA ENERGY AUTHORITY

Dear Mr Emerman,

We have just returned from a wonderful 3 week vacation in Alaska - spending time in Denali & the Matanuska valley. You are so lucky to live in such a beautiful, dramatic country. That is why leaving that you were even considering constructing an electric transmission line to believe, it would destroy the beauty of the wilderness & we would feel we very quickly a financial liability. Tourists do not go to Alaska to see power lines - if that were the case they would not need to leave their backyards. The wilderness of Alaska needs to remain wild. It is a unique place - don't bring it down to the mundane level of the 'civilised world'.

we recognize, of course, that you do need to provide power for communities & industry but it would seem much more financially prudent in the long term to do this without destroying the environment - I'm sure this could be done with investment.

In conclusion - a plea from 2 visitors to Alaska who totally tell us love with the country - don't ruin the beauty of such a special place for the sake of a few dollars - it will not pay off in the long run.

Yours sincerely

Edward Bell

Richard Zell ...

2561 Lovejoy Drive  
Anchorage, Ak 99508  
August 30, 1993

Dick Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, AK 99519-0869

Dear Mr. Emerman:

Brent Petrie asked me to send you my suggestions on the routing of the Glennallen intertie even though it is a bit late in your process. I know part of the area quite well. I am the author of 55 Ways to The Wilderness, a popular southcentral hiking guide. Two of the trails in the book are part of the intertie route alternatives. I have walked both of these areas several times. We also have had a cabin in the Dan Creek drainage for 25 years.

I urge that the justification for running this line be really strong before it is built. This stretch of Glenn Highway and the mountains on either side are some of the most magnificent in the state, both for the highway traveler and the backcountry recreationist. These uses will become increasingly important and valuable over time. All possible power source alternatives should be exhausted before building a powerline through this area. If this loan were applied to some other source, would it become feasible? I'm sure legislators would be willing to consider reappropriating the funds if the study were to find alternatives.

Though not building this line is my recommended alternative, I do have suggestions for the least harmful routing for part of the line. I am enclosing a set of maps with my route suggestions. The part of the route that I know well is from Chickaloon to Eureka or Pass Creek.

The main criteria for route siting should be to have as little impact as possible on existing uses. That means siting it away from the magnificent views afforded by the Glenn Highway, away from existing homes, and away from pristine or relatively pristine recreation areas.

In general I would favor routing the line along the Glenn Highway corridor where it can be routed away from homes and where it will not detract from the magnificent views that highway affords.

I have not looked at whether this is feasible or not because I do not have the information on where the homes are. If it is necessary to route it away from the Glenn Highway, I have the following suggestions for the area that I know. The overview of my recommendation is to go up Boulder Creek to just beyond the Simpson Cabin, go along the bench in front of Anthracite Ridge, using the alternate routing back against the ridge, then go up Hicks Creeks to Caribou Creek, and along Caribou Creek to Squaw Creek.

A more specific description and explanation is as follows: starting from the east end of route

segment S 3-4, I urge the alternate S 4-5. Do not go up Boulder Creek or over Chitna Pass. This is a beautiful, relatively pristine area—particularly the pass. Brent had the impression that Boulder Creek had been torn up but that is not the case. There is an ORV trail that goes up the river but it is not overly intrusive. The pass is beautiful and has only a horse trail over it. A powerline would change the character completely—in my mind, it would destroy the area as a wilderness hike.

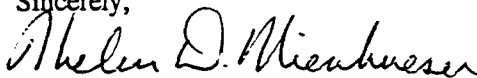
Routing the powerline in front of Anthracite Ridge is the lesser of several evils. The alternate route there is set back against the ridge and thus would be less obtrusive, since the main view from the broad bench is of the Chugach to the south. Please do not use the main S 4-5. The trail in our book follows the Chickaloon-Knik-Nelchina trail along that bench in front of Anthracite Ridge. The view from that trail of the Chugach is one of the most magnificent I have seen. A powerline in the foreground would destroy it. A powerline set back against the ridge would be preferable.

From the east end of S 5-6, please follow S 6-8 up Hicks Creeks. This valley is indeed badly scarred by years of ORV use over marshy ground. A powerline ought to be sited where there is already some development rather than in pristine areas. Hicks Creek is not pristine. On the other hand, Dan Creek is pristine—a lovely relatively untouched valley.

From Caribou Creek and S 7-8 I do not have a strong preference. Alfred Creek is shorter and already heavily impacted by mining. On the other hand it is a narrow canyon in many places and would be hard to make unobtrusive. For that reason Squaw Creek is probably preferable even though it means bringing the line around the west end of Syncline Mountain where I do not think there is much development at present. I would urge that landscape architects look at how to site the line in Squaw Creek to make it as unobtrusive as possible from the Squaw Creek road which is receiving increasing recreational use as well as hunting use.

I hope that these suggestions will be useful to you and that you can send them on to join the others if you have already passed the main group of comments on. I would like to know what your final recommendations are.

Sincerely,



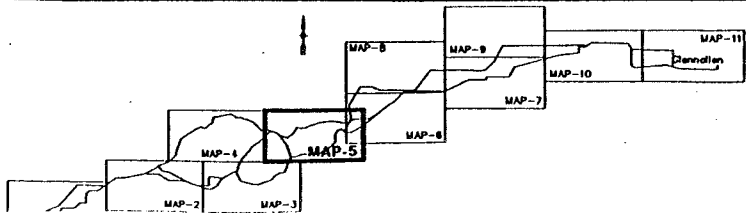
Helen D. Nienhueser

cc Brent Petrie



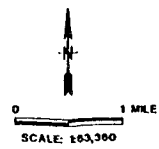
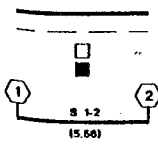


MAP INDEX



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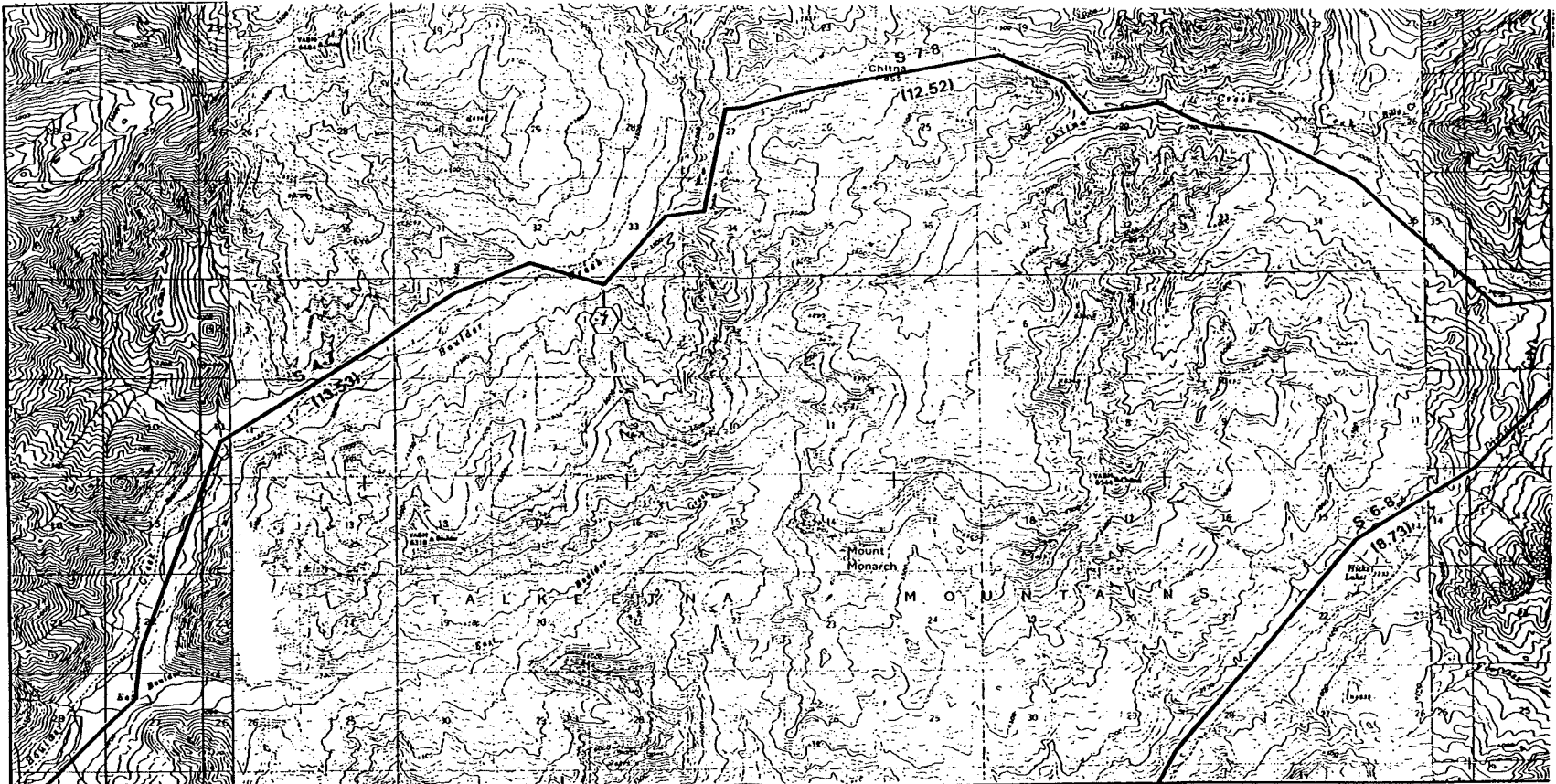
- ALTERNATIVE ROUTE SEGMENTS
- ROUTE MODIFICATIONS POSSIBLE
- EXISTING SUBSTATION
- PROPOSED NEW SUBSTATION
- SEGMENT DESIGNATION S 1-2, Lk. BETWEEN POINTS 1 AND 2
- MILEAGE BETWEEN POINTS IN ( )



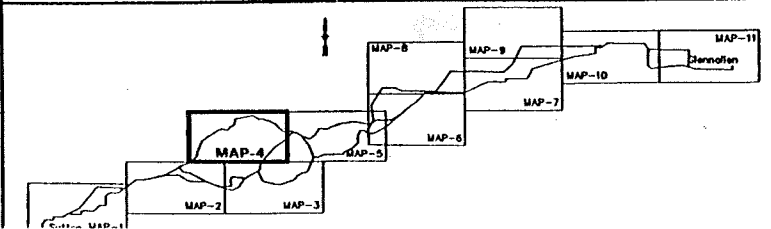
ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE  
FEASIBILITY STUDY

STUDY ROUTE  
ALTERNATIVES  
MAP-5 OF 11 MAPS  
JUNE 1993

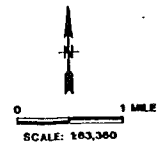
R.W. BECK



**MAP INDEX**



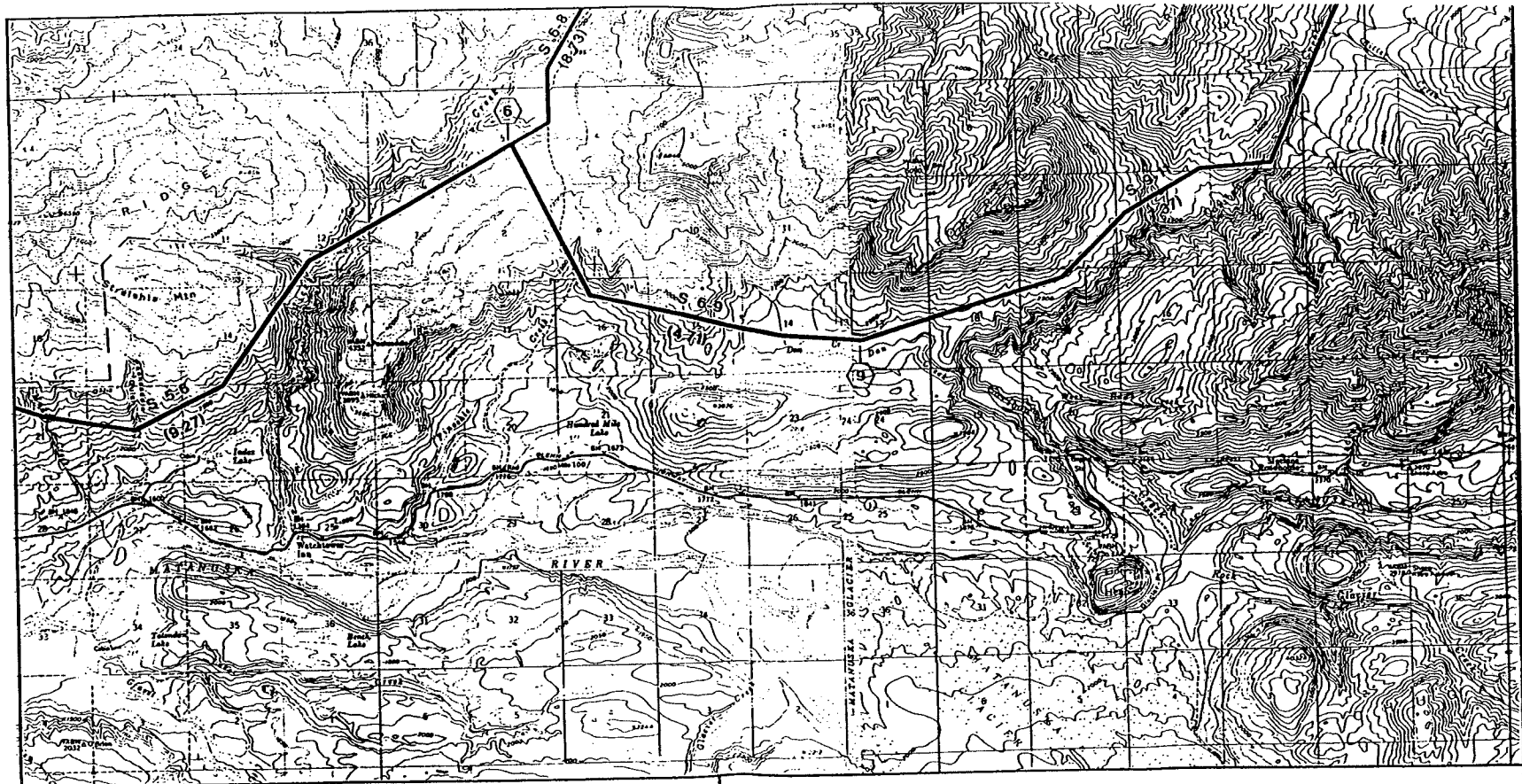
- LEGEND**
- ALTERNATIVE ROUTE SEGMENTS
  - - - ROUTE MODIFICATIONS POSSIBLE
  - EXISTING SUBSTATION
  - PROPOSED NEW SUBSTATION
  - ① ② SEGMENT DESIGNATION (1-2, Ls. BETWEEN POINTS 1 AND 2)
  - (5.50) MILEAGE BETWEEN POINTS IN ( )



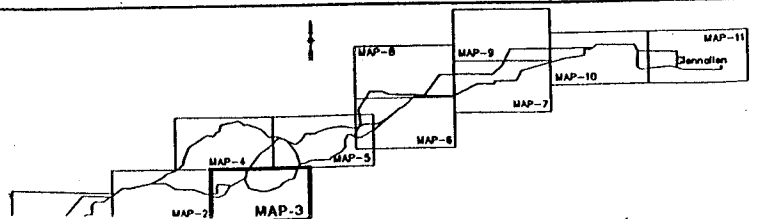
**ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE  
FEASIBILITY STUDY**

**STUDY ROUTE  
ALTERNATIVES  
MAP-4 OF 11 MAPS  
JUNE 1993**

**R.W. BECK  
AND ASSOCIATES**

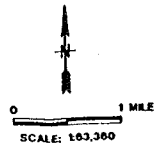


**MAP INDEX**



**LEGEND**

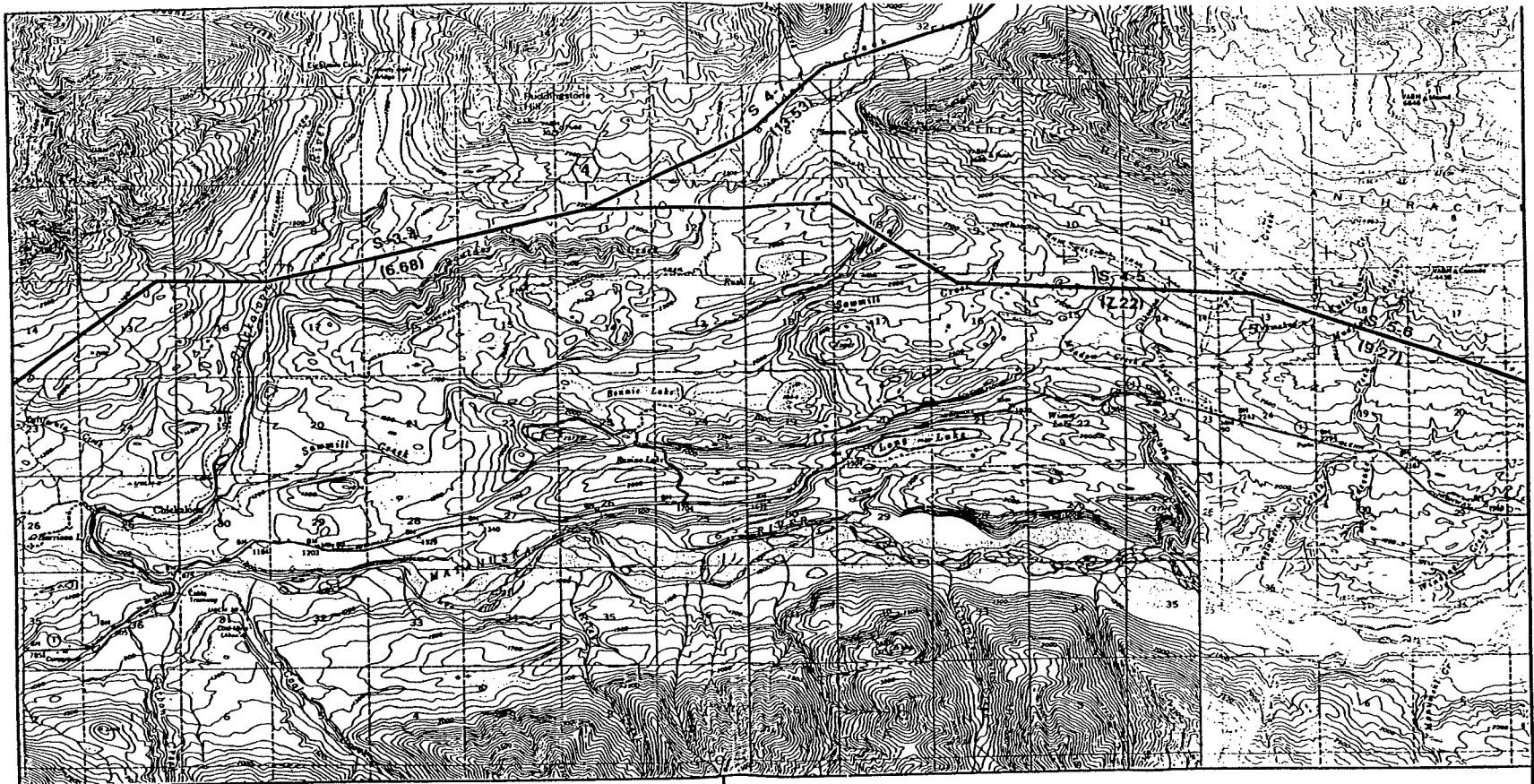
- ALTERNATIVE ROUTE SEGMENTS
- ROUTE MODIFICATIONS POSSIBLE
- EXISTING SUBSTATION
- PROPOSED NEW SUBSTATION
- SEGMENT DESIGNATION S1-2,  
1.6 BETWEEN POINTS 1 AND 2
- MILEAGE BETWEEN POINTS  
IN ( )



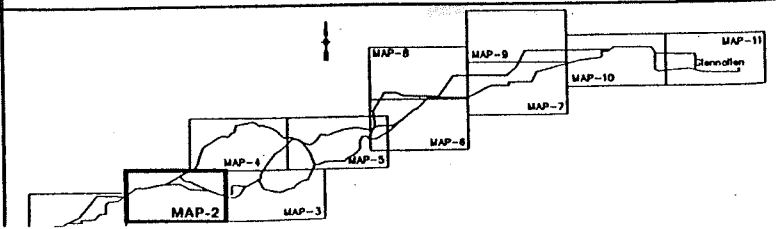
**ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE  
FEASIBILITY STUDY**

**STUDY ROUTE  
ALTERNATIVES  
MAP-3 OF 11 MAPS**

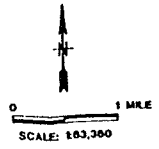
**JUNE 1993  
R.W. BECK  
AND ASSOCIATES**



**MAP INDEX**



- LEGEND**
- ALTERNATIVE ROUTE SEGMENTS
  - - - ROUTE MODIFICATIONS POSSIBLE
  - EXISTING SUBSTATION
  - PROPOSED NEW SUBSTATION
  - ① S 1-2 (5.56)
  - ② SEGMENT DESIGNATION S1-2, LA. BETWEEN POINTS 1 AND 2
  - MILEAGE BETWEEN POINTS IN ( )



**ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE  
FEASIBILITY STUDY**

**STUDY ROUTE  
ALTERNATIVES  
MAP-2 OF 11 MAPS  
JUNE 1993**

**R.W. BECK  
AND ASSOCIATES**

# Trustees for ALASKA

A Non-Profit. Public Interest. Environmental Law Firm.

John Heberling  
R.W. Beck & Assoc.  
2101 4th Ave., Suite 600  
Seattle, WA 98121-2375  
VIA FACSIMILE: (206) 441-4964

OCT 12 1993

R.W. BECK & ASSOCIATES  
SEATTLE, WA

September 7, 1993

Re: Sutton-Glenallen Intertie, Economic Feasibility Study

Dear Mr. Heberling,

On behalf of the Alaska Center for the Environment (ACE) and Trustees for Alaska, I am writing to express concerns about the proposed electrical transmission intertie between Sutton and Glenallen. Both ACE and Trustees have members who live in, use and enjoy the region which would be adversely impacted by a Sutton-Glenallen intertie. For a multitude of reasons, constructing an intertie in this region makes no economic sense.

As an initial matter, the scope of an economic feasibility study of an intertie must include a study of the reasonable alternative sources of power available to the Copper River region. The alternatives which should be studied include, at a minimum:

- \* conservation measures;
- \* geothermal projects;
- \* increased efficiency diesel generators using the latest technology concerning atomizers;
- \* hydroelectric projects;
- \* a coal-fired power plant.

We do not suggest that these alternatives are necessarily preferable, from an economic or other perspective, to an intertie. A feasibility study which does not at least consider them, however, would not be helpful and would most certainly be flawed. See AS 44.83.181.

There are also many other factors which must be considered and discussed in an economic feasibility study for an intertie project, including weighing the costs and benefits of an intertie and determining the potential effect of the intertie on the environment. AS 44.83.181. Some of the factors which should be studied include, but are not limited to, the following:

- \* impact on tourism due to the effect on the viewshed;
- \* impact on the economy of people who live along the intertie corridor;

- \* impact on the lifestyles/quality of life of the people who live along the intertie corridor;
- \* likely increase in hunting effort due to increased access and how this may impact the already limited wildlife resources of the area;
- \* impact on other recreational uses of the region;
- \* impact on the health of the people in the region due to electro-magnetic radiation;
- \* impact on area due to increased access from roads associated with the project;
- \* impacts on adjacent BLM land;
- \* impact on wetlands in the region;
- \* impacts on moose populations in the Matanuska Valley moose range;
- \* impacts on fish species due to erosion from construction and maintenance activities and increased fishing effort due to increased access;
- \* impacts on the Copper Valley migratory bird fly-way, including impacts on trumpeter swans, peregrine falcons and bald and golden eagles.

We urge you to take this opportunity to prepare a fair and detailed analysis of the economic feasibility of the proposed intertie; one which takes into account all the potential impacts of the intertie and the significant concerns of the people in the region, and in Alaska, to an intertie in this area.

If you have any questions, please do not hesitate to call.

Sincerely,



Peter Van Tuyn

cc: Alaska Public Utilities Commission  
Bureau of Land Management  
U.S. Fish and Wildlife Service  
Alaska Department of Fish and Game  
Alaska Department of Natural Resources



OCT 12 1993

R.W. BECK & ASSOCIATES  
SEATTLE, WA

October 6, 1993

Chris Rose  
Co-Chair ACRED  
General Delivery  
Sutton, Alaska  
99674

Mr. Richard Emerman  
Project Manager  
Sutton-Glenallen Intertie  
P.O. Box 190869  
Anchorage, Alaska 99519-0869

Dear Mr. Emerman:

During this past spring and summer many residents along the Glenn Highway expressed their opposition to the proposed Sutton-Glenallen intertie by attending meetings and writing comments to the the now defunct Alaska Energy Authority. However, most of those same residents feel like their concerns have been downplayed, especially by the utility interests in the Copper Valley (CVEA) who have been working so hard behind the scenes to get the project approved with as little public participation as possible. In response to the situation, Alaska citizens opposed to the intertie have recently formed a citizen's group named Alaska Consumers for Responsible Energy Development (ACRED). This letter's purpose is to outline the reasons ACRED is opposed to the intertie and to notice all parties involved that ACRED is prepared to:

- 1) lobby against the feasibility and viability of the project;
- 2) oppose the necessary permitting of the project and;
- 3) enlist legal assistance to fight the project.

Before going into the specific problems ACRED has with the substance of the project, we would first like to point out the problems we see in the process thus far.

First, we believe that the legislature's appropriation of money for this project last spring (subject to an approved feasibility study) violates the intent of Alaska Statutes 44.83.177-187 which clearly contemplate an approved feasibility and a plan of finance before the project is submitted to the legislature. The intent of such a process is obvious: If a project has not yet been deemed feasible, no state monies should be thrown at it.

Second, we believe the public comment four years ago in the reconnaissance study phase of the project is inadequate to address the intertie contemplated today. The project contemplated in the 1989 "Railbelt Intertie Reconnaissance Study: Northeast Transmission Intertie Project" was of a different scope than the current project. More importantly, comment from four years ago is too removed in time to be meaningful. The general proposal outlined in the late 1980's was nowhere near as immediate to concerned citizens then as is the newly re-vamped project which surfaced so rapidly last spring.

Third, comment taken since last spring has been inadequate. Meetings were always characterized by Energy Authority staff as "informational". The meetings were held in the summer, the most difficult time for concerned residents to take time out to investigate the project. And finally, no official public testimony was taken.

Fourth, comment on the forthcoming economic feasibility study also appears destined for inadequacy. The initial plan was to have a draft feasibility study completed by mid summer. Residents were led to believe they would have the opportunity to comment on the draft. However, it was then announced that instead of a draft study coming out in July and a final draft being ready near the end of the year, residents were informed there would be no summer draft and a final study would come out in the fall.

Finally, the Energy Authority never solicited public comment from residents of Palmer, Wasilla, or Anchorage. There are people in all those communities who use the area along the proposed route of the intertie and would like to comment on the proposal. The end result of all of the above deficiencies in the comment process has been still less public participation. One of ACRED's missions now is to get the word out about the intertie to people in all affected communities.



Now we would like to briefly outline the reasons for ACRED's opposition to the intertie.

### I Alternatives To The Intertie Have Not Been Fully Explored

First, we are not convinced that:

- 1) a true need has been shown for a different source of power in the Copper Valley and
- 2) whether the goal of lowering or stabilizing electric rates in the Copper Valley justifies the economic and social costs an intertie would bring along with it.

However, if Copper Valley does need more power, we believe that alternatives to the intertie do exist. These alternatives include:

- 1) The hydroelectric potential of the Copper Valley region which has not been adequately explored;\*
- 2) Higher efficiency diesel generators that use atomizers to increase efficiency and reduce emissions;
- 3) A co-generating coal fired plant in the Glennallen area\* and;
- 4) Conservation measures in tandem with any of the above.\*

\*the Reconnaissance Study ordered by the Alaska legislature in July of 1987 asked for:

**A REVIEW AND EVALUATION OF RAILBELT ENERGY  
POWER ALTERNATIVES INCLUDING COAL-BASED  
GENERATION, NATURAL GAS-BASED GENERATION,  
CONSERVATION, THE DEVIL CANYON HYDROELECTRIC  
PROJECT, AND OTHER HYDROELECTRIC ALTERNATIVES.**

Excerpt from capital budget passed during special session, July 1987 (emphasis added).

The bottom line is that the intertie has too many social and economic costs to justify it as the alternative to meet any increased needs CVEA may have.

## II The Intertie will Adversely Affect Our Quality Of Life

Residents along the proposed route from Sutton to Sheep Mountain are near unanimous in their opposition to the intertie. At stake for many is a quality of life that people have sought out and found in the Matanuska Valley. Adverse affects the intertie will produce for our quality of life include:

- 1) Unsightly transmission lines in one of the most beautiful populated valleys in the state of Alaska. These have the potential for adversely affecting a tourist-based economy that many people along the route now depend upon.
- 2) Invasion and opening-up of wild places. Construction and maintenance of the intertie will bring with it noise, access roads, and people. All this activity will damage the essence of the wilderness along the front range of the Talkeetna Mountains.
- 3) The access roads mentioned above will also provide increased hunting access to the backcountry which will increase the competition for game resources that are already becoming scarcer.
- 4) Construction of the intertie will damage and alter the historical trail system that has been in place since the beginning of this century.
- 5) Construction of the intertie will damage Native American cultural resources along the route.
- 6) Construction of the intertie will essentially ruin the aesthetic character of several high-use recreation areas, including Boulder Creek and Chitina Pass.

For all of the above reasons, we feel that any marginal economic benefits to the citizens of the Copper Valley from the intertie that may exist are heavily outweighed by the social costs to the residents along the intertie's route.

### III The Intertie Will Have Adverse Environmental Affects

Finally, ACRED is concerned about several environmental issues that are raised by the proposed construction of the intertie. These include:

- 1) Concerns about impacts to peregrine falcons along the proposed route. The falcons are protected by the Federal Endangered Species Act (ESA).
- 2) Concerns regarding impacts on nesting bald and golden eagles along the proposed route. The Bald Eagle Protection Act prohibits the taking of eagle tree nests. Furthermore, Anthony and Issacs, in a 1989 publication for the Journal of Wildlife Management, recommend that human activities be restricted within 800 meters of nest sites during the breeding season, which, in Southcentral Alaska, extends from April 1 to August 31.
- 4) Impact on migratory birds in the Copper Valley flyway that may collide with the powerlines, especially the threatened trumpeter swan, also protected by the ESA.
- 5) Adverse environmental impacts on Bureau of Land Management (BLM) land the proposed route would cross. These impacts will need to be addressed in an Environmental Impact Statement (EIS) as required by the National Environmental Policy Act (NEPA).
- 6) Impacts to moose populations in the Matanuska Valley Moose Range. We are especially concerned about the impact of new service and access roads that will increase hunting access for metropolitan hunters.
- 7) Impacts to other species of wildlife from the above mentioned access roads.
- 8) Impacts to stream fish populations affected by erosion of soils resulting from the construction of the intertie and its associated access and maintenance roads.
- 9) Impacts of increased noise levels on wildlife as well as humans. This noise level will increase both as a result of

construction and maintenance of the intertie , as well as increased use of the affected areas via the access and maintenance roads.

10) Impacts to freshwater streams caused by work in, or crossing of, streams during construction and maintenance of the intertie.

11) Impacts on significant areas of wetlands the intertie would cross.

12) Impacts on humans and wildlife from electro-magnetic fields (EMF's). These EMF's are highly suspected of causing cancer.

This letter does not contain an exhaustive list of our concerns. We are in the process of investigating other possible impacts the powerline may have, as well as arranging to obtain an independent economic analysis of the viability and feasibility of the intertie. However, we hope that this letter will help all the parties involved understand how serious our concerns are. We also hope it helps those involved understand how determined we are to see that those concerns are met. Please feel free to contact me if you have any questions or comments. Thank you for your consideration.

Sincerely,



Chris Rose  
Co-Chair ACRED

cc.

R.W. Beck and Associates  
Trustees for Alaska  
Alaska Center for the Environment

Alaska Public Utility Commission  
U.S. BLM, Regional Office  
U.S. Dept. of Fish and Wildlife, Regional Office  
Alaska Dept. of Fish and Game  
Alaska Dept. of Natural Resources  
Alaska Dept. of Community and Regional Affairs  
Board of Directors, MEA  
Board of Directors, CVEA  
Alaska Public Interest Research Group  
Chickaloon Village Traditional Council  
Matanuska Susitna Convention and Visitors Bureau  
Anchorage Convention and Visitors Bureau  
Alaska Office of History and Archeology  
Alaska Division of Tourism  
Matanuska - Susitna Borough Assembly  
Alaska Visitors Association

Dear Commissioner Blatchford:

I am opposed to the construction of the Sutton to Glenallen intertie because:

GENERALIZATION... Community Impact,  
ENVIRONMENT IMPACT

Name: JESS C. TREMAINE

Address: Box 1242  
Chickaloon, Alaska 99674

Dear Commissioner Blatchford:

I am opposed to the construction of the Sutton to Glenallen intertie because:

My neighbors will move to Michigan because of the EMF on their property

Name: MIRO MILIC

Address: Box 28  
SUTTON, AK. 99674

Dear Commissioner Blatchford:

I am opposed to the construction of the Sutton to Glenallen intertie because:

I can't believe the land I bought will be ruined and uninhabitable by this intertie. 60\$ million to serve 8000 of us! Outrageous!

Name: This is unnecessary and political flim flam!

Address:

Chris Ly Longley Flintoff  
P.O. Box 103814  
Anchorage, AK. 99510

Dear Commissioner Blatchford:

I am opposed to the construction of the Sutton to Glenallen intertie because:

We are counting on tourism to come to the Valley for our income.

Name: Dianne Milic

Address: Box 28  
Sutton, Ak. 99674

Dear Commissioner Blatchford:

I am opposed to the construction of the Sutton to Glenallen intertie because:

BUILD A POWER PLANT IN GLENALLEN

Name: MERLE D. JOHNSON

Address: P.O. Box 277  
SUTTON AK 99674

Dear Commissioner Blatchford:

I am opposed to the construction of the Sutton to Glenallen intertie because:

Name: James Kimball Vicki Kimball

Address: P.O. Box 1200  
Chickaloon AK. 99674

Dear Commissioner Blatchford:

I am opposed to the construction of the Sutton to Glenallen intertie because:

I LIVE DIRECTLY UNDER THE PROPOSED SITES.

Name: CHRISTOPHER ERIC Rhea

Address:

HCO3 BOX 8374-B  
PALMER AK 99645  
MILE POST 95 GLENN HWY  
VICTORY ROAD

Dear Commissioner Blatchford:

I am opposed to the construction of the Sutton to Glenallen intertie because:

I am not convinced it is needed. Other options not thoroughly discussed.

Name: and because it might be being asked to power a military

Address: operation called HAARP

Tom Lee  
Box 2771  
PALMER 99645

Dear Commissioner Blatchford:

I am opposed to the construction of the Sutton to Glenallen intertie because:

The state cannot afford a NO interest load. Alternatives have not been pursued.

Name: Becky Long

Address: Box 344  
Talkeetna, AK 99676

Dear Commissioner Blatchford:

I am opposed to the construction of the Sutton to Glenallen intertie because:

It is a waste of Alaska's money to build a power line that costs this much.

Name: <sup>for only \$1,000</sup> I also believe that Copper Valley Utility has

Address: tried to unduly influence the feasibility study in their favor. A coal plant would provide jobs in several rural areas where people need work

JS Doyle  
Box 1121  
Chickaloon  
AK 99674

Dear Commissioner Blatchford:

I am opposed to the construction of the Sutton to Glenallen intertie because:

They can't give proper service to the Mat-Su Valley - especially the Chickaloon area - power is constantly out at the slightest storm or wind with spend millions for an intertie when there's need of an up grade service in my area.

Name: George Coon

Address: PO Box 223  
Sutton, Alaska  
99674

Dear Commissioner Blatchford:

I am opposed to the construction of the Sutton to Glenallen intertie because:

of the negative impact on the scenic beauty of the Matanuska Valley.

Name: Jim Bauer

Address: Box 172  
Sutton AK 99674

Dear Commissioner Blatchford:

I am opposed to the construction of the Sutton to Glenallen intertie because:

- 1) Cost: benefit ratio negative
- 2) Preferred economic and environmental alternatives
- 3) Negative effect, long-term AND short term on tourism

Name: Michelle Schuman, Env. Scientist

Address: PO Box 242  
Sutton, AK  
99674

DOCUMENTATION OF PUBLIC COMMENTS  
ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE FEASIBILITY STUDY

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Please submit your comments as soon as practical to the following:

Mr. Richard Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, AK 99519-0869

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Name of Person Commenting:

Sam & Gina Hoeb

Mailing Address:

P.O. Box 1211  
Cheekaloon, Alaska 99674

JAN. 15<sup>th</sup> 1994  
S.L.

COMMENTS:

WE HAVE BEEN RESIDENTS HERE FOR 17 YEARS AND ARE  
TOTALLY AGAINST THE PROPOSED INTERTIE PROJECT THROUGH  
OUR AREA. ASIDE FROM THE PROJECT BEING DIRECTLY  
ACROSS FROM OUR HOME ON FISH LAKE ROAD,  
OTHER NEGATIVE FACTORS CERTAINLY PLAY A PART AS WELL

Continued on Back



- 1/ DESTRUCTION OF NATURAL HABITAT WHICH CURRENTLY EXISTS.
- 2/ OPENS A PATHWAY FOR INFLUX OF HUNTERS IN AREA AND CERTAIN OPPORTUNITIES OF TRESPASSING ON PRIVATE AND NATIVE LANDS.
- 3/ POTENTIAL FIRE HAZARDS IN REMOTE AREAS WITH THE HIGH VOLTAGE LINES IN TURN WOULD BURN THOUSANDS OF ACRES OF PRIVATE, NATIVE & STATE LANDS. ACCESS TO FIRES IS VIRTUALLY IMPOSSIBLE EXCEPT BY AIR.
- 4/ HAZARDS FOR LOW FLYING AIRCRAFT WHICH FREQUENTLY COME LOW IN AREA DUE TO WEATHER CONDITIONS.

IT IS TYPICAL THAT A PROJECT WOULD EVEN BE CONSIDERED WHEN OUR BASIC ELECTRIC WHICH IS IN PLACE HAS NEVER RUN 3 WKS. CONSECUTIVE WITHOUT AN OUTAGE SINCE THE SERVICE WAS MADE AVAILABLE. WHY UPGRADE AN AREA SO FAR AWAY WHEN THE UTILITIES THAT ARE IN PLACE HAVE NOT BEEN FINE-TUNED. LETS BE REALISTIC, SCRATCH THE PROJECT AND TAKE CARE OF WHAT'S CURRENTLY IN PLACE.

12/19/93

Box 344, Talkeetna, AK 99670

RECEIVED

JAN 04 1993

Dear Commissioner Blatchford,

This regards the proposed  
intertie from Sutton to Glenallen.

COMMISSIONER'S OFFICE  
COMMUNITY & REGIONAL AFFAIRS

I am opposed to this intertie  
for economical, environmental, &  
community impact reasons.

1) Economic

This is a pork barrel project.  
You officials cry about a budget  
crunch but keep funding unneeded  
projects. It is practically a  
subsidized project to encourage  
expansion of industry and military.  
Let industry put up the money  
for electrical needs.

2) Environmental

If there is a need for more electrical  
output, alternatives need to be  
pursued... Energy conservation,  
energy efficiency

The impact on the environment  
will be detrimental. Downed trees  
could encourage spruce bark beetle  
infestation. It will open up  
access to the area which will  
impact animal populations & their habitat

3) It will change the community.  
I know this from experience  
having lived near the construction  
of Intertec near Talkeetna. The  
construction phase brought crime  
into our community.

I am also concerned that the  
feasibility study will not be  
an independent or impartial  
study due to the influence of  
the Copper Valley Electrical  
Association. They have met with  
the consultants.

This is to request you put me into  
the bureaucratic loop in order  
to be able to comment on the  
draft study.

Becky Long  
cc: Office of Management & Budget  
Senator Jay Kerttula  
Representative Menard  
AK Industrial Development & Export  
Authority

RECEIVED

JAN 04 1993

COMMISSIONER'S OFFICE  
COMMUNITY & REGIONAL AFFAIRS

KEVIN WALKER

PO Box 1911  
Seward, AK 99664  
(907) 224-5111

December 30, 1993

Edgar Blatchford, Commissioner  
Department of Regional and Community Affairs  
Room 217 Community Building  
PO Box 112100  
Juneau, AK 99811-2100

Dear Mr. Blatchford:

Please save the State of Alaska \$60,000,000 by **NOT** approving the Sutton Glennallen intertie.

I lived at milepost 105 on the Glenn Highway 2 years ago amidst the beauty of the Matanuska Valley. I met no one in the area who approved of the intertie. \$60 million is a tremendous amount of money and this project would benefit very few people and scar a wonderful area. With the present budget crisis we can no longer afford these pork barrel projects. If distributed among Alaska's residents, this \$60 million would be \$120 for every man, woman, and child.

Please **REJECT** the R. W. Beck feasibility study.

Sincerely,



Kevin Walker

Deborah L Walker

P O Box 246

Sutton, Alaska 99674 December 28, 1993

RECEIVED

DEC 28 1993

Commissioner Edgar Blatchford  
Dept. of Community and Regional Affairs  
P. O. Box 112100  
Juneau, Alaska 99811-2100

COMMISSIONER'S OFFICE  
COMMUNITY & REGIONAL AFFAIRS

Dear Mr. Edgar Blatchford,

This letter is to let you know that I am in strong opposition to the Glennallen Intertie that MEA wants to construct.

At first when I learned of this project, I was neither for or against it. But then last weekend when I went home to my house mile 72 and a quarter on the Glenn Highway, and faced another 4 hours of plowing the snow from around my house and opening up my driveway, only to discover the power was out, and it remained out till the following afternoon, I was really mad.

I go through these power outs every year like clock work, and it remains out for at least a minumim of 4 hours before there seems to be anything done. The month of Oct. it went out because of high winds, when I called in the comment I received was that there must be a tree on the line out there that was causing my power to surge, and that it should burn itself through the line any time now.

Every year, I get the same excusses that theres trees on the line, or that the transformer is worn out and it hasn't been brought up to date.

Well, if MEA can't keep the people in the Sutton, Chickaloon areas in power during the winter months, or high winds, or up date transformers then Why Should MEA and the State spend up to \$ 60 Million dollars, according to the research figures of ACRED and only serve 8,000 to 9,000 people?

I don't want to see anymore of our money, state, or revenue bonds by the Alaska Industrial Development and Export Authority be squandered on any projects until the power in my area can be stablized. If the power hadn't been off for as long as it was, I would have been able to unthaw my waterline, now it remains froze and most likely will remain frozen until this spring.

*Sincerely*

*Deborah Walker*  
*Chickaloon resident*

*745-3521*

May 25, 1993

An Open Letter To:

Board of Directors  
Copper Valley Electric Association  
P.O. Box 45  
Glennallen, Alaska 99588

Dear Ladies & Gentlemen:

I have followed with great interest CVEA's actions in obtaining funding for the Sutton to Glennallen intertie. As a past Board member and legislator, I have been totally supportive of finding ways to lower our exorbitant electrical rates.

I am quite concerned though that the manner in which the legislature has passed a bill to fund this intertie with a loan, rather than a grant, is not going to lower our rates. As I read the legislation CVEA members will have to pay back to the state thirty five million dollars over fifty years. That works out to \$700,000 a year. We would also have to borrow, at market rates, as much as ten million more dollars. This would make CVEA's payments about a million dollars per year.

My understanding is that CVEA would also be responsible for the maintenance and upkeep on the line for the same fifty year period or for the life of the line. With our existing tie line between Valdez and Glennallen, the state pays for the maintenance and any major problems, such as repairs after an avalanche.

When we were sold on the idea of building Solomon Gulch Dam and the Intertie over Thompson Pass, we were under the impression that our rates would be reduced because of their construction. But ever since they were built, people have used them as excuses as to why our rates are so high.

I ask that the Board of Directors take all the time they need and obtain every bit of information necessary to determine that funding this intertie with loans will absolutely cause our rates to be lowered

substantially. Take into consideration the worse case scenario, because it often seems that the worse case scenario ends up being reality. Consider:

1. Can we afford a 35 million dollar no interest loan, paid back over fifty years?
2. How much more would we have to borrow at market rates?
3. What will be the cost of maintaining this line?
4. How will we pay for major repairs such as those caused by an avalanche?
5. What is the life expectancy of the line? Will we have to rebuild it before it is even paid off?
6. We had this as a partial grant in the Senate version; is there some other way to fund this project that would put a smaller debt on our co-op?
7. Finally, are you completely sure that when this tie-line is complete, our electrical rates will be reduced and stay reduced for the life of this loan?

Everyone wants to see our electrical rates reduced. It is the main disadvantage that most businesses have in competing with other communities around the state. It is also a substantial cost of living in the area for every resident. We know that you, as a Board, have been working hard to get this funding. But you need to be extra careful now to be sure that this is the best course of action for CVEA to take. You need to be extra sure that this is the best deal that CVEA can get. We can not afford another disastrous period of prolonged excessive debt.

Thank you.

Gene Kubina  
Box 2463  
Valdez, Ak 99686



DOCUMENTATION OF PUBLIC COMMENTS  
ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE FEASIBILITY STUDY

RECEIVED  
APR 12 1993  
ALASKA ENERGY AUTHORITY

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Mr. Richard Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, AK 99519-0869

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Name of Person Commenting:

SIMONE PULP MANN

Mailing Address:

PI PER 155  
GLINN ALLEN, AK 99674

COMMENTS:

*This would be OK if lines  
did not cross any private  
property.*

Continued on Back

RECEIVED

DOCUMENTATION OF PUBLIC COMMENTS  
ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE FEASIBILITY STUDY ALASKA ENERGY AUTHORITY

APR 22 1993

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Name of Person Commenting:

Graham Ward

Mailing Address:

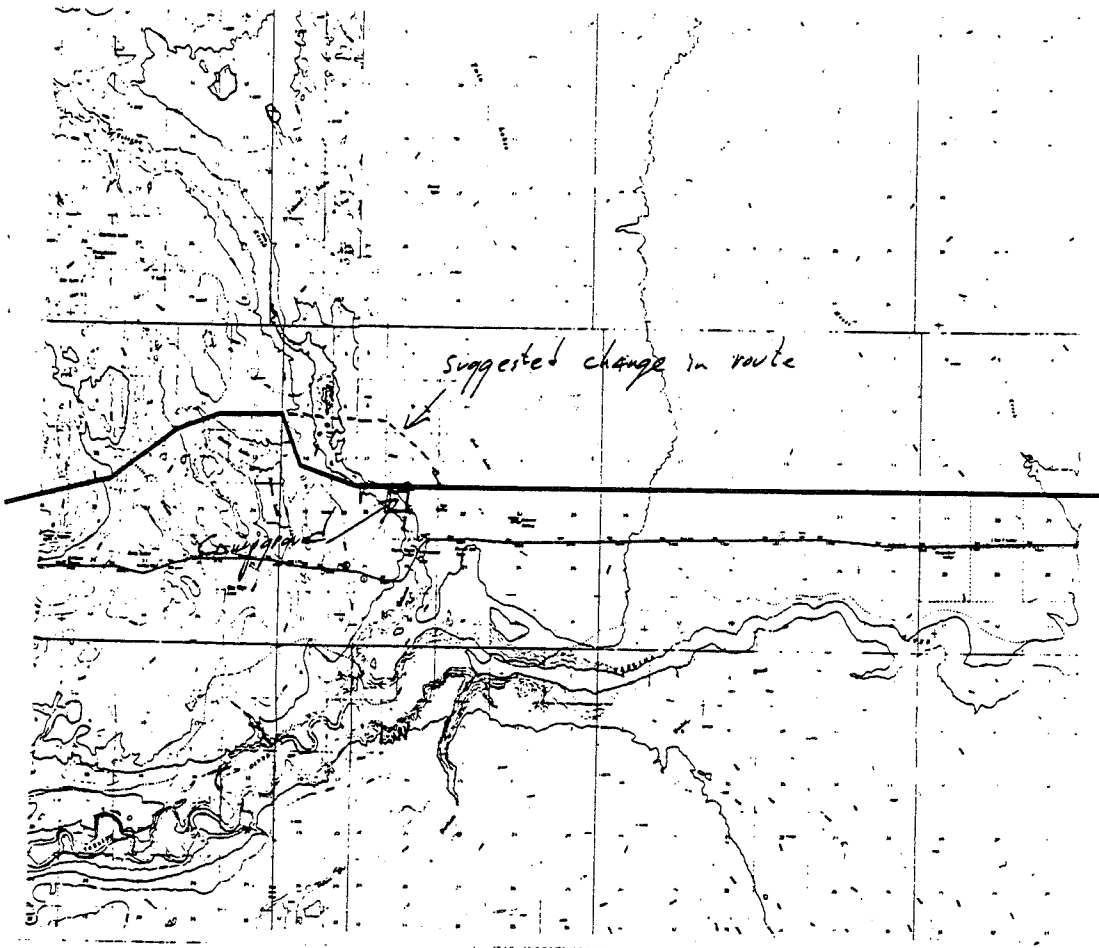
Box 23

Glennallen AK 99588

COMMENTS:

My campground, Tolsona Wilderness Campground is about 1 mile up Tolsona Creek (see map) and it appears that the transmission line would cross the back of the campground.  
If the line could be moved one mile further from the road (see suggested route on map) I would be most appreciative.

Continued on Back



**LEGEND**

- ALTERNATIVE ROUTE 1 (PRELIMINARY)
- ALTERNATIVE ROUTE 2 (PRELIMINARY)



SCALE: 1:66,000

ALASKA ENERGY AUTHORITY  
 COPPER VALLEY INTERTIE  
 FEASIBILITY STUDY  
**PRELIMINARY ROUTE  
 ALTERNATIVES**  
 SHEET 6 OF 7 SHEETS  
 MARCH 1983  
 R.W. BECK  
 CONSULTANTS

HC60 Box 306T  
Copper Center, AK 99573  
May 6, 1993

Richard Emerman  
Alaska Energy Authority  
PO Box 190869  
Anchorage, AK 99519

RECEIVED  
MAY 10 1993  
ALASKA ENERGY AUTHORITY

Re: Sutton-to-Glennallen Intertie Feasibility Study

Dear Mr. Emerman:

My husband and I live in the Copper River Valley (Kenny Lake area) and purchase power from Copper Valley Electric Association (CVEA). I have several concerns about the proposed Sutton-to-Glennallen Intertie, specifically:

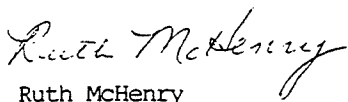
- 1) Will it be a good deal for the State of Alaska, or could greater benefits be obtained by spending the money in another way?
- 2) Will it be a good deal for CVEA consumers? (I have heard from many friends and neighbors that power rates went up after the Valdez intertie was completed.)
- 3) Are there health risks to people living near the proposed intertie? It sounds as if the scientific debate continues. I would not want to enjoy lower electric rates at the expense of the health of others.

I hope that the feasibility study will study these questions in depth and present its conclusions in clear terms that the public can understand. In addition, I hope that the study will compare the proposed intertie with other options, including:

- 1) a "clean coal" power generation plant in the Glennallen area, utilizing Matanuska Valley coal;
- 2) a natural gas power generation plant, utilizing either North Slope natural gas or possible Copper River Basin natural gas reserves, when these resources become available;
- 3) co-generation by Petro Star Refinery in Valdez, which (I have heard) is using about 25% of CVEA electricity;
- 4) conservation, which has not yet been vigorously promoted by CVEA.

An objective assessment of all the options will be in the best interests of CVEA consumers and all Alaska residents.

Sincerely,

  
Ruth McHenry



HC O3, Box 8392, Palmer, Alaska 99645 Phone: (907)745-4203 FAX: (907)745-4206

May 28, 1993

Dick Emerman  
Alaska Energy Authority  
PO Box 190869  
Anchorage AK 99519-0819

RECEIVED

JUN 02 1993

ALASKA ENERGY AUTHORITY

Dear Mr Emerman,

I appreciated being able to chat with you on the phone and update you as to our feeling in the Glacier View area on how the proposed power line is routed.

As, per our conversation, you mentioned that the present power line routing is scheduled to go directly in front of Anthracite Ridge, up Hicks Creek, over Pinochle Pass, over Dan Creek Basin, up to Caribou Creek, Alford Creek and on up the highway toward Glennallen.

At our Community Council meeting a number of our residents who hunt, fly and are actively involved in the back country have discussed the routing. They have even measured a back country route from the start of Boulder Creek all the way to the borough boundary lines near Nelchina. They found that it is the shortest possible route and has the least obstacles.

You mentioned in our phone call that there seems to be some difficulty getting over Chitna Pass. This is not as troublesome as the present routing going around Strelshla, up Hicks Creek and over in to Dan Creek. Those are formidable areas and would be extremely hard to maintain.

Also, during our conversation, we discussed the fact that on the front side of Strelshla mountain is an Environmental Issue in the form of a rock glacier which contains large boulders with 15-20 feet of ice underneath them. While on the phone, I gave you the name of a man who has been dealing with that area, Mr Kerwin Krause. He is with the State of Alaska, presently in the mining division. He was formerly responsible for monitoring the rock glacier. His phone number is 762-2145.

We also noted during our phone conversation that presently there are nineteen schools from the Anchorage School District using the site of the rock glacier to hunt for fossils, as that whole area is filled with natural fossils. This is a place that, I am sure, would need an extreme amount of consideration in your environmental impact study to make sure that it met all the standards that have been imposed on a power line such as this.

ALPINE CAMP . RANCH CAMP . TEEPEE CAMP . WILDERNESS CAMP . CONFERENCE CENTER (Mile 95, Glenn Hwy.)  
CAMP LI-WA (Fairbanks)

Emerman letter, May 26, 1993

page two

It is presently my feeling, and that of many in our community, that the present chosen route is not a viable route for a structure such as a power line. And, it has been the stance of the Glacier View Community Council that to run the proposed Sutton-Glennallen Intertie line through the back country is a much better route.

Further discussion brought up the possible expense of maintenance, but in talking to the General Manager of Glennallen, he said that Copper Valley Electric Association will be maintaining the line by helicopter. So, we feel that it is much better to put the power line in the back country, where it is easy going up Boulder Creek, Caribou and Alford Creek and could eventually be maintained by a track type vehicle.

Your response to this letter would be very much appreciated so that we may maintain clear communications with you and your organization as you attempt to install this power line.

Sincerely,



Stan Gillespie  
President/CEO

ldb

**RECEIVED**  
JUN 10 1993

**DOCUMENTATION OF PUBLIC COMMENTS  
ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE FEASIBILITY STUDY** ALASKA ENERGY AUTHORITY

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Alaska Energy Authority  
P.O. Box 190869  
Anchorage, AK 99519-0869

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Name of Person Commenting:

Rex J. Close

Mailing Address:

5601 COLLEGE DR.  
ANCHORAGE, ALASKA 99504

COMMENTS:

WILL NOT BE MAKING VERBAL COMMENT  
BUT AM VERY INTERESTED IN SELECTED  
RIGHT-OF-WAY AND TYPE/STYLE OF  
SUPPORT STRUCTURE TO BE USED IN THE  
M.P. 102 GLENN WAY AREA.  
PLEASE KEEP ME INFORMED OF ALL  
MATTERS CONCERNING THIS STUDY.

Continued on Back

Rex J. Close

**COPPER VALLEY ECONOMIC DEVELOPMENT COUNCIL, INC.**  
P.O. Box 9  
Glennallen, Alaska 99588

RECEIVED

NOV 08 1993

DIVISION OF ENERGY/DCRA

November 4, 1993

Dept of Community and Regional Affairs  
Energy Division  
333 W. 4th Avenue  
Anchorage, Alaska 99501-2341

To Who It May Concern:

Copper Valley Economic Development Council, Inc., would like to re-emphasize its support for the Sutton to Glennallen Intertie. Attached is a resolution, offering that support. As we have stated in the past, the construction of this line is essential to the region if we are to become a sustainable economy. The prospects of increased energy costs in the region negatively impacts the development potential for the region.

Enclosed you will find a copy of our Five Year Strategic Plan for the region. Over 150 residents participated in this planning process. Each discussion group emphasized the need for lower energy costs.

We are vehemently opposed to the construction of a coal fired plant in the downtown area of Glennallen. Part of our Strategic Plan calls for the beautification of that area, to make it more appealing to not only the visitors to our region, but to potential business starts as well. The addition of a coal fired power plant, will detract and hinder those efforts. Downtown Glennallen sits in a hole and wood smoke has difficulty escaping, as would emissions from a coal fired plant. Glennallen has been installing a sewer system throughout the core area of town. The water requirements called for in the coal fired system would require massive improvements to a brand new system. There are no funds currently available to make those improvements.

CVEDC urges you to support this intertie and the benefits the region will see economically as a result. As identified by several State and Federal agencies, we have the potential to become a very economically sound region only if we can provide power in the region at affordable rates.



**ARDOR**

SHAPING ALASKA'S FUTURE

Ph. (907) 822-5001 - Fax (907) 822-5009

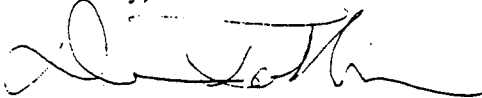


DCRA  
pg. 2  
Nov. 2, 1993

Please look at the benefits to be gained for the majority of Valdez and Glennallen, rather than the small minority opposing the project.

We look forward to the construction of this line in a timely manner and the benefits our region will enjoy as a result.

Sincerely,



Donna Tollman  
Executive Director

eng: Dick Em - ltr & report of strategic plan  
cc: Jke  
Dennis > ltr & resolution only

COPPER VALLEY ECONOMIC DEVELOPMENT COUNCIL

RESOLUTION 93-007

SUPPORT FOR THE THE SUTTON TO GLENNALLEN INTERTIE

WHEREAS, the Copper Valley Economic Development Council is a nonprofit corporation with the State of Alaska, and was formed as a partnership of the public and private sectors of the Copper Valley region of Alaska to address the economic problems and potential growth of the region; and

WHEREAS, the Copper Valley Economic Development Council Board of Directors recognize the major limiting factor to economic development within the Copper Valley region is the high cost of electrical power; and


WHEREAS, the residents and businesses in the Copper Valley region receive central station service from Copper Valley Electric Association, Inc., and pay some of the highest unsubsidized rates in the State of Alaska; and


WHEREAS, Copper Valley Electric Association has continually looked for ways to reduce the cost of power in this region and has determined to date that the only permanent fix to the rate situation would be the Sutton to Glennallen intertie, connecting Copper Valley residents to the Railbelt grid; and

WHEREAS, stable or reduced electrical rates would support the economic development within our region, it would entice new businesses as well as encourage current businesses to expand, as identified in our Economic Development Plan; now therefore

BE IT RESOLVED, the Copper Valley Economic Development Council supports Copper Valley Electric Association's efforts and respectfully requests the Department of Community and Regional Affairs; Division of Energy to support and approve the loan funding for the design and construction of the Sutton to Glennallen intertie.

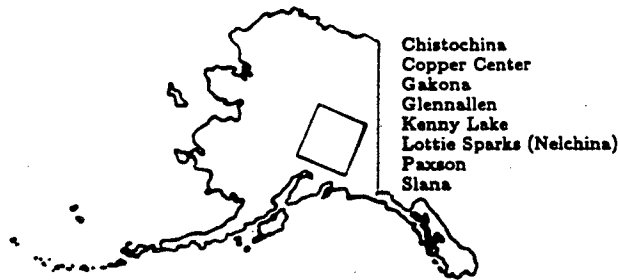
Approved and signed this 27th day of October, 1993, in Glennallen, Alaska.

  
Secretary (attest)

  
President

(seal)

# *Copper River School District*



Superintendent's Office  
Box 108  
Glennallen, Alaska 99588  
(907) 822-3234

RECEIVED

OCT 28 1993

DIVISION OF ENERGY/DCRA

October 26, 1993

Don Harris, Director  
DCRA  
Division of Energy  
P. O. Box 190869  
Anchorage, AK 99519-0869

Dear Mr. Harris:

I am writing to you as a school administrator about the Sutton to Glennallen transmission line project. As I review the economic impact upon the educational programs at the Copper River School District, I am overwhelmed by the amount of savings that would be realized by the approval of this electric transmission project.

The present source of electric power for the Copper River School District via the Copper Valley Electric Cooperative is from a blended cost of power originating from diesel powered and hydro-generated plants. That cost to the district as a consumer was .10/kwh in 1992. The CRSD budget for electricity is over \$172,000.00 annually. The cost of power generated by hydro-electricity at .064/kwh can save the district \$62,000.00 annually.

The Copper River School District could make better use of its resources for classroom instruction and materials. The savings of \$62,000.00 annually would enable the district pursue a variety of projects to improve instruction. CRSD could add a teacher to its staff to help in the instruction process, or the savings of \$62,000.00 would enable the district to add much needed science equipment, or we could purchase 50 computers to assist our students in their instruction.

In a ten year period, these savings would amount to a million dollars. This is a sizable chunk of revenue that would not have to be spent on mere comfort, but for real education of our youth.

A least-cost central service station is needed to curb the cost of electricity and to place our revenues into actual educational opportunities. A reduction in expenditures for this entity alone is justification for approval of the Sutton to Glennallen transmission line. This is a most feasible plan to curb the high cost of electricity.

When it comes to heating, electricity is a wise and safe choice, but it must also be affordable. Today it is not, but with the Sutton to Glennallen transmission line, it can be.

Sincerely,



Reid Straabe, Supt.

cc: Richard E.  
Dke  
Bennis

**SEND**  
INTERNATIONAL of Alaska

P.O. Box 369

Glennallen, Alaska 99588

Phone (907) 822-3291

September 14, 1993

RECEIVED

SEP 16 1993

ALASKA ENERGY AUTHORITY

Mr. Richard Emerman  
Alaska Energy Authority  
PO Box 190869  
Anchorage, AK 99519-0869

Dear Mr. Emerman:

I am writing to express my support of the Sutton to Glennallen intertie, which received a \$35 million dollar zero interest free loan through the legislature in 1993. We would like to express our support and our need for electricity to be used through this intertie.

We have a radio station, a medical facility, a Bible college and other facilities here that certainly need lower electrical costs. We believe that as a growing contributor to the state of Alaska, we are hindered by having higher electricity rates than most other places in the state of Alaska and we believe we should have equal opportunity with both Anchorage and Fairbanks in receiving reasonable electrical rates.

Currently, we are paying .21 cents a kilowatt hour for electricity in this area, as compared to those in other areas that are being subsidized by the state of Alaska. I believe that this transmission line would provide for the growth of the communities along the line as well as in the Copper River Basin and Valdez.

We would like to see our quality of life enhanced here and we believe that by having stable and reasonable electric power available that the area would be more quickly developed and we would become even more of a contributor to the welfare of our state.

We certainly would like to have your support in seeing this project through and this transmission line completed.

Sincerely,



Vernon R. Stevenson  
Area Director

cc to John Downs

*Ahtna, Inc.*

GLENNALLEN OFFICE  
P.O. BOX 649  
GLENNALLEN, AK 99588  
PHONE: (907) 822-3476  
FAX: (907) 822-3495  
TOLL FREE 1-800-478-3443

September 13, 1993

ANCHORAGE OFFICE  
406 W. FIREWEED LANE, NO. 101  
ANCHORAGE, AK 99503  
PHONE: (907) 274-7662  
FAX: (907) 274-6614

Richard Emerman  
Alaska Energy Authority  
P. O. Box 190869  
Anchorage, AK 99519-0869

RECEIVED

SEP 16 1993

ALASKA ENERGY AUTHORITY

Dear Mr. Emerman:

Ahtna, Inc. and its subsidiaries, along with our shareholders and employees, are located in the Glennallen area which is served by the Copper Valley Electric Association (CVEA). It is no secret that the present CVEA membership pays one of the higher kilowatt rates for electricity in the State of Alaska. As a consequence, CVEA has continually sought ways to reduce its rates to consumers.

The most recent effort has been an attempt to get the State of Alaska, through the legislature, to fund a Sutton to Glennallen power intertie. As you know, the legislature did approve \$35 million zero interest loan earmarked for this project. Ahtna, Inc. totally supports this project, as we see positive, long-term benefits from such a project. We believe that the rates could be reduced over an extended time with the tie of CVEA to the railbelt energy grid. Of course, with reduced electrical rates the overall economy and the quality of life could be greatly improved in the Copper River Basin.

We ask that you give a favorable consideration to this proposed project.

Sincerely,

*Roy S. Ewan*

Roy S. Ewan  
President/CEO

RSE:dag

Copper River Emergency Medical Service  
Box 529  
Glennallen, Alaska 99588

September 10, 1993

Mr. Richard Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, Alaska 99519-0869

RECEIVED

SEP 15 1993

Dear Mr. Emerman:

ALASKA ENERGY AUTHORITY

Our organization has voted unanimously to support the Sutton - Glennallen Intertie project. We believe that the project will provide for lower electrical rates in the long run as well as reduce dependence upon fossil fuels. Lower electrical rates will allow business's to operate which can't now due to electrical costs. Our organization is not a major consumer of electricity; however, the impact of high cost electricity to our budget is significant.

We urge your support of the Sutton-Glennallen Intertie project.

Sincerely,



Kenneth Roberson, Vice Chairman  
Copper River EMS  
Box 529  
Glennallen, Alaska 99588

COPPER VALLEY ECONOMIC DEVELOPMENT COUNCIL, INC.  
P.O. Box 9  
Glennallen, Alaska 99588

RECEIVED

SEP 13 1993

ALASKA ENERGY AUTHORITY

September 7, 1993

Mr. Richard Emerman  
Alaska Energy Authority  
P. O. Box 190869  
Anchorage, Alaska 99519-0869

Dear Mr. Emerman:

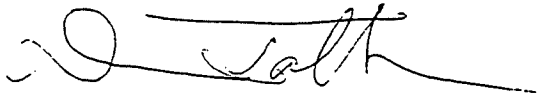
*Copper Valley Economic Development Council, Inc., has long been aware that the major barrier to economic development and sustainability in the Copper Valley is the high cost of energy. We have been active supporters of the construction of the Sutton to Glennallen intertie and previous intertie proposals. We would like the feasibility study to reflect this support. Without stable power rates, economic development, which translates to jobs and well being are not a real possibility in our region.*

*Existing businesses are affected as well as new ones. The distinct possibility of power increases over the next several years will be a major factor for a new enterprise and for the existing ones to open and remain open.*

*School budgets are on the decrease and operational expenses are on the increase. The savings to the school district alone would be enough to offset some of the declining revenues they face over the next several years.*

*The arguments for construction of the Sutton to Glennallen Intertie are endless and we are sure stated often. It is unfortunate that a few people cannot see that an entire region of the State of Alaska is affected by their determination to stop this construction. We urge you to look at the good that can be derived from this construction and at the opinions of the majority, rather than the minority.*

Sincerely,



Donna Tollman  
Executive Director



**ARDOR**

SHAPING ALASKA'S FUTURE

Ph. (907) 822-5001 - Fax (907) 822-5009



CROSSROAD  
MEDICAL CENTER

P.O. Box 5 Glennallen AK 99588  
Telephone (907) 822-3203

Formerly Faith Hospital, a division of SEND Intl. of Alaska

September 7, 1993

RECEIVED

SEP 13 1993

ALASKA ENERGY AUTHORITY

Mr. Richard Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, Alaska 99519-0869

Dear Mr. Emerman:

I am writing to you in regards to the Sutton to Glennallen Intertie. I would like to see the intertie go through to provide reliable power at a reduced cost which would stabilize or reduce current rates paid by the Copper Valley Electric Association consumers.

Stable or lower electrical rates would assist in promoting economic development within the communities served by CVEA.

CVEA currently owns, maintains, and operates two diesel plants which will increase in cost to maintain as they get older.

As the only health care facility in the area, we are concerned with keeping overhead costs as low as possible.

Thank you for your consideration in this matter.

Yours in Christ,

*Dawn Oaks*

Dawn C. Oaks  
Administrator

DCO/pl1

**TOLSONA WILDERNESS CAMPGROUND**

P.O. Box 23 Mile 173 Glenn Hwy.  
Glennallen AK 99588-0023

August 31, 1993

Mr. Richard Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage AK 99519-0869

Dear Mr. Emerman,

As owner and operator of a campground in Glennallen I am fully aware and concerned about the high electric prices in our area. Some campers have several 1000w electric heaters and are still appalled that I have to charge \$3.00 extra for electric hookups. Even at this rate I sometimes only break even for 22¢/KW, 2000w/hr. for 8 hrs. is \$3.52.

Last month the campground electric bill was over \$750.00. Anything that can be done to stabilize or reduce these rates would be greatly appreciated.

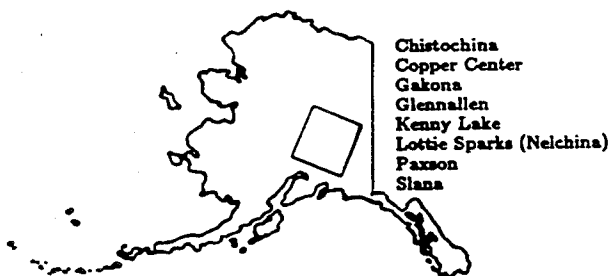
I also want to thank the engineers for moving the proposed route of the line slightly north so that it won't cross over my campground.

Sincerely,

A handwritten signature in black ink, appearing to read "Graham Ward", written in a cursive style.

Graham Ward.

# Copper River School District



Superintendent's Office  
Box 108  
Glennallen, Alaska 99588  
(907) 822-3234

August 31, 1993

Mr. Richard Emerman  
Alaska Energy Authority  
P. O. Bo 190869  
Anchorage, Alaska 99519-0869

Dear Mr. Emerman:

The Copper River School District Board of Education wishes to reiterate its support of the Sutton to Glennallen Intertie.

Copper Valley Electric Association (CVEA) currently owns, maintains, and operates two diesels plants; one in Valdez and one in Glennallen. As these units get older and are used more it will be more costly to maintain them in good operational condition. The transmission line would allow CVEA to place these diesel plants into either cold or warm standby so they would be available in case of an emergency.

The intertie would tie CVEA members to the railbelt energy grid and provide reliable power at a substantially reduced cost that would stabilize or reduce current rates paid by CVEA consumers. Lower or stable rates could help to enhance the quality of life for those living in the CVEA service area and provide an avenue to promote economic development within the community.

A copy of the original resolution in support of the intertie passed on February 8, 1993, is enclosed.

Sincerely,

Reid Straabe  
Superintendent

Enclosure

RECEIVED

AUG 31 1993

ALASKA ENERGY AUTHORITY

Greater Copper Valley Chamber of Commerce  
P.O. Box 469  
Glennallen, Alaska 99588

Michael J. Swisher  
H.C. 60 Box 339  
Copper Center,  
Ak. 99573

August 29, 1993

Mr. Richard Emerson  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, Alaska 99519-0869

Dear Mr. Emerson:

Regarding the Sutton to Glennallen Intertie: I am very much in favor of the Intertie as it would not only pick up new subscribers but would lower the cost/KWH for all involved.

Minor extensions could be made to the Tiekel area where other subscribers could be picked up.

CC: Greater Copper Valley Chamber of Commerce.

CC: Tiekel River Lodge.

Sincerely,



Michael J. Swisher



## LOG HOMES OF ALASKA

P.O. Box 366  
Mile 2 TOK Cutoff  
Gakona, Alaska 99586  
Telephone (907) 822-5105

RECEIVED

AUG 31 1993

ALASKA ENERGY AUTHORITY

August 28, 1993

Dear Mr. Emorman,

I have been a resident and a businessman in the Copper River Valley for over 18 years. One of our major concerns is the price we have to pay for electricity now and the possibility of paying significantly more in the not-to-distant future.

I strongly support the Sutton-Dennah Inter-tie Bill with hopes of having our electrical rates somewhat stable for the future. I believe the Inter-tie would benefit all of the people associated with this Inter-tie. Any assistance you can give us in getting this plan to become a reality would certainly be appreciated. Thank you

Sincerely  
John [Signature]

Old Post Office Gallery

BOX 379  
COPPER CENTER, ALASKA 99573  
(907) 822-3694

RECEIVED

AUG 27 1993

ALASKA ENERGY AUTHORITY

8.26-93

Dear Mr. Emerman,

As a business woman in the Copper Basin I recognize the great need to stabilize the escalating cost of power. I wish to express my support for the Sutton to Glennallen initiative. I believe that without it economic growth in the future will be lacking grim.

Sincerely  
Joanne Fort Noodle

# Gakona Junction Village



August 25, 1993

Alaska Energy Authority  
P. O. Box 190869  
Anchorage, AK 99519-0869

RECEIVED

AUG 30 1993

ALASKA ENERGY AUTHORITY

Attn.: Mr. Richard Emerman, Senior Economist

Re: Sutton to Glennallen Intertie - Comment

Dear Mr. Emerman:

It has brought to my attention that you are receiving many comments from some of the citizenry along the proposed route of the Sutton to Glennallen Intertie that contain predominantly negative responses. We are hearing that those concerns center around the intrusion of the power line onto their properties and some have expressed concern over the emissions question.

As a benefactor of the reduced rates we are hopeful of receiving I, for one, am very concerned for the health of my family, business and neighbors in our surrounding communities in the Copper Valley. Whereas, I agree with the folks from the Sutton area that the line needs to be shielded from sight and all reasonable steps must be taken to insure the complete safety of the populous, I must take exception to the attitude of some that are professing to destroy this project under any and all conditions.

Last month, June 1993, my small business paid \$1870. In July the bill was in excess of \$2500 and I just paid \$2700 for the latest billing. My research shows that had we been in Anchorage, Fairbanks or many other locations in Alaska these bills would have been less than half of what we are paying. Like many in Alaska we are working under very difficult circumstances and want to do all we can to continue to be in business. If, however, the rising costs price us out of our markets we have no choice but to either sell to someone else who will only eventually fail or close the doors.

Our electric rates are critical to our health and welfare and if the Sutton-Glennallen Intertie is the viable solution to the problem we must work with all diligence in that direction. As you know the option to this plan is to rebuild the existing plant at millions of dollars, increasing rates, pollution, and operating costs while, at the same time, disallowing new business development, and creating more government control of a dinosaur system.

I urge you to listen to the concerns of the citizenry and build the Intertie with respect to their objections but in any event . . . Build the Intertie!

Sincerely,

  
L. Alan LeMaster, President  
Gakona Junction Village, Inc.

cc: Mr. Clayton Hurless, General Manager - Copper Valley Electric Association  
Mr. Robert "Bob" Sunder, President of the Board of Directors - CVEA  
file

# Gakona Junction Village



August 25, 1993

State of Alaska  
Department of Community and Regional Affairs  
Division of Energy  
P. O. Box 190869  
Anchorage, AK 99519-0869

RECEIVED

OCT 26 1993

DIVISION OF ENERGY/DCRA

Attn.: Mr. Don Harris, Director

Re: Sutton to Glennallen Intertie - Comment

Dear Mr. Harris:

With the winter months just ahead it brings with it the final phases of our work with the above noted Sutton - Glennallen Intertie. We coop members are expecting the final round of public comment meetings when R. W. Beck and Associates completes their feasibility study within the next few weeks.

We are looking forward to their findings and a final determination on which way to move so we can, once and for all, get on with it.

Some weeks ago I sent correspondence to Mr. Richard Emerman urging him to give our intertie project priority consideration as we are desperately struggling to stay in business while we await lower power costs.

As you are aware, we in the Copper Valley are paying about the highest unsubsidised rates for electricity in Alaska, the United States and possible the World! We are not just a little bit higher, but more than double that being charged our neighbors in Fairbanks, and Anchorage and over 4 to 5 times the rates charged in many communities in the lower 48.

Well, Mr. Harris, I must say this is no small burden to bear. To operate my small business we will spend up to \$2700 a month this year for electricity. It is a burden that can, in fact, easily put us over the edge and cause our company to fail if it continues to increase as is projected by our studies. Thus, my concerns. We *must* turn this around!

We are now learning about an alternative source of power through steam generation using coal boilers as proposed by Slana Energy and Hobbs Industries. I have had the opportunity to talk with some of the principals of this system but, much like our national health plan in Washington, there is a lot of rhetoric but nothing is showing itself on paper. Their claims are impressive and deserve full consideration before making any final judgment. Whereas they seem to have answers for every question we have not had any hard evidence that will verify their claims. I am sure they are in the process of preparing something for distribution but to date we only have lip service. Time is of essence and we can only continue to give these ancillary proposals limited time to prove themselves. After that we must move on if we are to cut power costs and save the businesses within the communities in the Valley and Valdez.

As I understand Copper Valley Electric Association position they are recommending we construct an intertie to Sutton from Glennallen that will allow us to bring up to 40 mw of



power to our valley. About 4 times that being used at presently and 4 times that proposed by the coal generation system; thus, allowing for many years of growth. This line will be funded by a state, no-interest loan, granted by the last legislature and subordinate costs will be raised through a \$25 million bond offering through the Alaska Industrial Development and Export Authority should those funds be needed.

The intertie will have a life of something over 50 years (more than double that proposed by the coal generation folks) and is upgradeable to more power capacity as needed in the future with relatively few dollars. It will provide a source of power for all the members of the Copper Valley Cooperative with no additional pollution, fewer costs and higher rates of efficiency. Additionally it will easily allow for expansion of our system to accommodate many communities in the area and large consumers of the nature of the Petro Star chemical plant recently brought on line in Valdez.

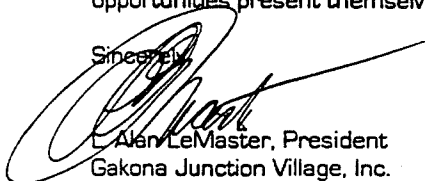
The concerns and objections of the individuals and businesses along the proposed right of way have been heard and addressed by moving the right of way a considerable distance at a great cost to the Coop . . . but, this will keep the line off private land, eliminate visibility, and keep the power away from people and livestock. A move that is correct and had to be done. There are among that group, however some who will not be satisfied if we run the line through Cabo San Lucas. They are objecting to everything from the need to keep the line from view to damaging the wilderness from walking around on the ground. Much of their objection is beginning to fall on deaf ears in the Valley as they reach too far in their zealous effort to keep us from having the very thing they are enjoying . . . lower electric rates and reasonable costs

We are being told that the new retail power rates from an interconnect with the Sutton-Glennallen intertie, when averaged with the rates from the Four Dam Pool, will cost about 8.4 cents/kwh now and by 2015 will increase to 18.3 cents/kwh in real dollars. When adjusted for inflation (in 1993 dollars) the costs will actually decline from 7.2 cents/kwh now to 5.9 cents/kwh in 2015. I think we all can live with that if, indeed, it is true. After many years of dealing with other power companies and the promises they make to gain dollars for new systems I look at these rates with a certain amount of skepticism but even if they are 50% right it will be better than what we have now. The only viable alternative presented to date is to continue where we are and the rates will probably more than double those figures placing us at a level that I, for one, will find most difficult continue our operation.

We are desperate to receive a livable rate that will enhance the growth of our businesses, schools, public facilities and, most importantly, our families quality of life. The time to move the Copper Valley into the 21st century is now! The people to do the job are aboard in the Copper Valley, Valdez, and Juneau.

We encourage you to expedite the project in quick time as the project unfolds and the opportunities present themselves. Our work is difficult and time is not our friend.

Sincerely,



Alan LeMaster, President  
Gakona Junction Village, Inc.

cc: Mr. Clayton Hurless, General Manager - Copper Valley Electric Association  
Mr. Robert "Bob" Sunder, President of the Board of Directors - CVEA  
file

orig: Dick  
cc: Ike  
Dennis

# Copper Basin Mechanical

Box 612  
Glennallen, Alaska 99588

Phone/Fax (907) 822-5531

RECEIVED

AUG 30 1993

ALASKA ENERGY AUTHORITY

Dear Mr. Emerman,

8/25/93

I am writing you About the Sutton - Glennallen intertie. We here in the Glennallen - Valdez Area need the intertie Badly, our Rates are among the highest Electric rates in the State. If we could get tied in to the excess power in the Anchorage Bow Area it would stabilize or possibly even reduce our Electric costs. I Believe one of the underlying reasons for the no growth economy - Glennallen is the extreme cost of Electricity. We are currently paying about 21 or 22 cents per K.W. This is a Bill of \$500<sup>00</sup> / month for my family. In this Economy a Bill like that is hard to pay. We need the intertie!

Paul S. Holland

Mechanical Contractor - Licensed - Bonded - Insured

Aug 25, 1993

RECEIVED

AUG 27 1993

ALASKA ENERGY AUTHORITY

Mr. Richard Emerman  
AER Energy Authority  
P.O. Box 190869  
Anchorage AK 99519-0869

Dear Mr. Emerman,

I would like to reaffirm the fact that Glennallen NEEDS to be connected to the railbed area via the intertie from Sutton to Glennallen.

This area is growing & the demands for electricity are increasing. If we could lower our rates we may even attract some industry.

Please see that there is an intertie between Sutton & Glennallen.

Thanks -

Connie Scott  
PO Box 224  
Glennallen 99580

Aug 25, 93

Mr Richard Emerman  
Alaska Energy Authority  
PO Box 190869  
Anchorage, AK 99519

RECEIVED  
AUG 27 1993  
ALASKA ENERGY AUTHORITY

Dear Sir

I am in favor of the Sutton to Glennallen intertie because of the savings of the millions of gallons of fossil fuels used each year to generate electricity for the Copper Valley.

The savings in cost of electricity for this area would also help local businesses and possibly bring more business to the Valley.

Thank you

Walter J. Ferguson  
840 Rockside  
Wasilla, AK 99654

Ms. Evelyn Bunch  
P.O. Box 31  
Glennallen, Alaska 99588  
August 17, 1993

RECEIVED

AUG 10 1993

ALASKA ENERGY AUTHORITY

Alaska Energy Authority  
Attn: Dick Emerman  
P.O. Box 190869  
Anchorage, Alaska 99519-0869

Dear Mr. Emerman:

I am writing to express my support for the Sutton-Glennallen intertie project. As a 30 year resident and long time business person in the Glennallen area, I have seen CVEA struggle to provide dependable electricity to the Copper Valley area. The Cooperative's efforts have been commendable under the circumstances and problems encountered here but lowering our very high rates has been impossible for a number of reasons. Finally, the plan for an intertie from Sutton to Glennallen appears to be a viable solution to our high energy costs, without sacrificing dependability of service.

What I and others in the area envision is an intertie that provides fair and equitable service, comparable to that made available in other highway communities. The Sutton-Glennallen intertie will enable the CVEA system to function on a modern, efficient level which will result in lower electric rates. We don't ask for special consideration, but we do need your help to make our vision a reality.

As electric rates come down, I believe as do many others, that the cost of living in the Copper Valley and the cost of doing business here will be more in line with other southcentral communities. Our quality of living and our economic outlook will improve immeasurably. Everyone would benefit. Not just local residents, but those in surrounding areas. I also feel that every care and consideration have been taken into account to see that our neighbors to the southwest are not adversely affected by the Sutton-Glennallen intertie.

The Copper Valley area, with its relatively small population and remote location, needs your help to accomplish our mutual goals of lowering electric rates and providing dependable electricity.

Sincerely,



Ms. Evelyn Bunch



**COPPER VALLEY TELEPHONE  
COOPERATIVE INC**

BOX 337, VALDEZ, ALASKA 99686

907-835-2231

FAX 907-835-2387

June 22, 1993

Alaska Energy Authority  
P. O. Box 190860  
Anchorage, AK 99519-0860

Copper Valley Telephone Cooperative, Inc., is a non-profit, member owned cooperative providing communications services throughout a large portion of South-Central Alaska. The nature of this area requires us to provision many small, remote buildings in which we house electronic equipment requiring AC power to operate. We have a constant first question we ask when engineering and planning upgrades or new facilities--what is the availability of AC power?

This dependence translates into charges for electrical services from Copper Valley Electric Cooperative in excess of \$65,000 per year--and growing!! Since we operate on a non-profit basis, any net effect upon those costs ultimately appears on our customers' bills. We have more than enough expensive obstacles to overcome in order to accomplish our goals, and strongly support any project which can help us keep the lid on our operating expenses as we intend to remain in business here for many years to come.

We trust that strong consideration will be given to the potential to minimize the "trickle down" or pass through effects of increased energy costs. The Sutton-Glennallen Intertie Project has that potential and more. It has the potential to stabilize rates--a direct benefit for our customers. It has the potential to encourage economic development--a direct benefit for our customers. And it addresses future need for many years--again, a direct benefit for our customers. We can only see positive returns through this project, returns which directly affect the pocketbooks of our 4000 customers through our operations alone.

As a utility, too often we find the expressed demands of a few override the unexpressed desire of the majority, especially where public works types of projects are concerned. I believe the benefits inherent in this project far outweigh the downside.

Sincerely yours,

Scott L. Smith  
General Manager

June 1993

DOCUMENTATION OF PUBLIC COMMENTS  
ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE FEASIBILITY STUDY

RECEIVED

JUN 30 1993

ALASKA ENERGY AUTHORITY

You are invited to comment on the proposed Copper Valley Intertie project which would consist of a 138-kV electric transmission line from Sutton to Glennallen. If you wish to submit written comment for consideration and inclusion in the feasibility study, please submit such comment as soon as practical to:

Mr. Richard Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, AK 99519-0869

Name of Person Commenting:

AL SANDERS

Mailing Address:

P.O. Box 79

COPPER CENTER, AK. 99573

COMMENTS:

WE HAVE NEEDED THIS INTERTIE FOR  
MANY YEARS. THE PROBLEMS THAT ARE BEING  
BRUGHT OUT BY THE FOLKS DOWN THE ROAD  
TOWARD ANCH. ARE A SMOKE SCREEN —  
DON'T HOPE TO TIE THE POTENTIAL GOOD FOR  
THIS VALLEY + AREA RESIDENTS BY THIS  
SMOKE SCREEN. I SUSPECT THAT SUTTON, +  
CHICKLOON FOLKS WOULDN'T BE HAPPY WITH  
ANYTHING <sup>OR ROUTE.</sup> WE NEED THIS LINE — IF  
YOU TALK IT TO DEATH — THE COST WILL DOUBLE —  
LET'S START BUILDING NOW *Al Sanders*

June 1993

DOCUMENTATION OF PUBLIC COMMENTS  
ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE FEASIBILITY STUDY

RECEIVED

JUN 30 1993

ALASKA ENERGY AUTHORITY

You are invited to comment on the proposed Copper Valley Intertie project which would consist of a 138-kV electric transmission line from Sutton to Glennallen. If you wish to submit written comment for consideration and inclusion in the feasibility study, please submit such comment as soon as practical to:

Mr. Richard Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, AK 99519-0869

Name of Person Commenting: BARBARA R. SANDERS  
Mailing Address: P.O. BOX 79  
COPPER CENTER, AK  
99573

COMMENTS: MUCH OF THE ARGUMENT AGAINST THE INTERTIE FOCUSES ON THE <sup>NEGATIVE</sup> VISUAL IMPACT - THAT VIEWING THE INTERTIE WILL HARM TOURIST BASED BUSINESS' - THOSE CONCERNED WITH THIS ASPECT OF THE INTERTIE SHOULD GO TOWARDS VALDEZ & VIEW THE TRANSMISSION LINE THERE. IT IS HARDLY VISIBLE & WHERE IT IS VISIBLE IT IS HARDLY NOTICABLE. THE BREATHTAKING BEAUTY OF THOMPSON PASS IS CERTAINLY COMPARABLE TO THE BEAUTY AROUND CHICKALOON & SUTTON.

TOURISTS ???! THEY ARE HERE FOR ONE TIME; THEY MAY OR MAYNOT MAKE A SECOND VISIT. WE HAVE TO LIVE HERE FULL TIME, YEAR-ROUND. TWO MONTHS OUT OF A YEAR MY ELECTRIC BILL FALLS BELOW \$100 - JUNE & JULY. SOMEHOW THE ARGUMENT THAT A TRANSMISSION LINE WILL MAR TOURIST-BASED INDUSTRIES/BUSINESS SEEMS TO BE A FLIMSY ONE. VIEWING AN OCCASSIONAL POWER LINE IS NOT GOING TO DISCOURAGE A TOURIST, THEY ARE MORE ENTHRALLED WITH THE MOUNTAINS TO EVEN PROBABLY NOTICE.

I HAVE LIVED IN ALASKA ALL MY LIFE & AS A CONSEQUENCE HAVE DEALT WITH TOURISTS EITHER IN BUSINESS OR THRU OUR MUSEUM WHERE I VOLUNTEER. THEY ARE ALWAYS CURIOUS ABOUT THE COST OF LIVING HERE & ARE APPALLED AT THE HIGH RATE WE PAY FOR POWER. AFFECT THE TOURIST INDUSTRY? HARDLY.



June 1993

DOCUMENTATION OF PUBLIC COMMENTS  
ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE FEASIBILITY STUDY

RECEIVED

JUN 28 1993

ALASKA ENERGY AUTHORITY

You are invited to comment on the proposed Copper Valley Intertie project which would consist of a 138-kV electric transmission line from Sutton to Glennallen. If you wish to submit written comment for consideration and inclusion in the feasibility study, please submit such comment as soon as practical to:

Mr. Richard Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, AK 99519-0869

Name of Person Commenting:

Julie Sisk

Mailing Address:

Po Box 163

GAKONA AK 99586

Julie Sisk

COMMENTS:

Yes, please! To stabilize  
prices (cost to consumer).

June 1993

DOCUMENTATION OF PUBLIC COMMENTS  
ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE FEASIBILITY STUDY

You are invited to comment on the proposed Copper Valley Intertie project which would consist of a 138-kV electric transmission line from Sutton to Glennallen. If you wish to submit written comment for consideration and inclusion in the feasibility study, please submit such comment as soon as practical to:

Mr. Richard Emerman  
Alaska Energy Authority  
P.O. Box 190869  
Anchorage, AK 99519-0869

Name of Person Commenting: Randy D Maag  
Mailing Address: POB 1031  
Valdez AK 99684

COMMENTS:

*I am in favor of constructing  
the intertie as soon as possible.  
I believe the schedule should  
be accelerated to as fast as possible  
to prevent further cost escalation.*

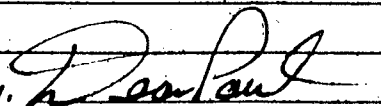
Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because: we need to plan now for economical power in the coming years which the interline line could provide. And in turn it could help us create an expansion of economic development possibilities in our area which we will need badly as the oil revenues decrease. It will also help us maintain a quality of life for our people in the Valley area. Think serious of this project as we need it.

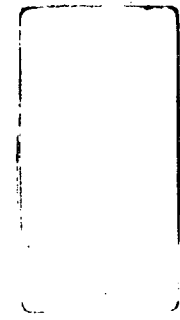
Sincerely, Helen D. Wade  
Pres. Prince Wm. Spang  
Economic Development  
& City Council

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

It will be more cost effective for both of us in the long run

Sincerely, 



Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

OUR BILLS ARE TOO HIGH - SEE NO REASON FOR IT WE PAY HIGH ENOUGH PRICES FOR EVERYTHING ELSE I KNOW IT MUST BE POSSIBLE TO MAKE IT LESS EXPENSIVE SO DO SOMETHING PLEASE

Sincerely, Sherry Chedley

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

I don't want this intertie as there is absolutely no guarantee of rates dropping or at best, remaining the same. Out here we pay about the highest rates of any community - I certainly don't want to pay more. Cut back on the fat!!!!

Sincerely, \_\_\_\_\_

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

Less chance of power outages. Lower rates (hopefully)

Sincerely, A. N. Velby

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

It will make rates lower.

Sincerely, S. Lane

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

Our members of CVEA have been paying the highest non-subsidized power rates in the State. Economic development & growth is inhibited by these rates. We need stabilization and possible reduction in rates which will be a result of this intertie. CVEA has explored all other options.

Sincerely, John Wilkinson

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

This will mean cheaper and more reliable power to the Copper River Valley

Sincerely, William H. Zipp

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

It will lower rates for consumers and reduce the states consumption of fossil fuels. It will economically benefit the area by reducing costs for power and stimulate jobs

Sincerely, Jim Anderson

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

There may be a time in the future when you need something. All of us work together

Sincerely, [Signature]

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

we are paying to high of rates

Sincerely, Lilly Ferrigno

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

STABILIZE THE RATE

Sincerely, Rubio Supt

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

Building the line is a complete waste - don't do it

ANDREW EMBICK, M.D.  
P.O. BOX 1588  
VALDEZ, ALASKA 99686

Sincerely, Andrew Embick

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

All the money outlined by CVEA

Sincerely, M. Vandenberg

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

IT WILL PROVIDE MORE RELIABLE AND LESS EXPENSIVE POWER

Sincerely, WE REC

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

IT WILL PROVIDE NEEDED JOBS NOW & IN THE FUTURE. ALSO IT WILL PROVIDE A BRIGHT & RELIABLE ELECTRICAL SYSTEM WHICH WILL BENEFIT "ALL" ALASKAN CITIZENS. BE PART OF A POSITIVE ISSUE & SUPPORT THIS LINE.

Sincerely, Lilly Ferrigno

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

We need a more stable, less costly form of power in Valdez. I support the Sutton to Glennallen transmission line

Sincerely, Nancy Rott

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

I could lower our electric rates

Sincerely, Shirley Ruff

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

Copper River valley residents pay <sup>one of</sup> the highest electric rates in the nation. We need rate reductions. Lower electric rates are key to the long term growth and stability of the Copper River Basin economy. I strongly support this transmission line.

Sincerely, J. L. Davenport

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

Our electric bill runs \$350 - \$500 each month. It's hard to stay in business with this kind of overhead.

Sincerely, \_\_\_\_\_

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

It will provide a long-term source of energy to support the economic development of the Copper River Basin. It will provide a long-term, reliable power supply that will be in coordination with the Solomon Gulch hydro facility.

Sincerely, Elizabeth Winkler

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

As a Business owner I must charge higher rates to my customers for this exorbitant electric rate & I can't be competitive with Anchorage like this.

Sincerely, Susan Winkler

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

IT IS VITAL THAT THE LINE BE PROTECTED UNDER FEDERAL AND STATE LAWS. THE TRANSMISSION LINE SHOULD BE PROTECTED AND RECEIVE SOME RELIEF FROM THE STATE OF ALASKA.

Sincerely, R. P. [Signature]

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

We need the stability of constant power and lower prices. We are very concerned about the EMF's and can only hope the line will be the necessary footage away. We are also concerned about the visibility of this line and can again hope it is hidden.

Sincerely, Marjorie [Signature]

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

It will make electricity more affordable. It would provide a long term power supply in conjunction with the Solomon Gulch hydro facility. I feel it will benefit everyone in Valdez & Glennallen. Please help put this project in motion.

Sincerely, Debra [Signature]

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

This would open up more hunting access and open a larger area in which we Alaskans may cut more firewood. Thanks,

Sincerely, Benee Taylor

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

We own 3 businesses in Valdez  
and would like to start another  
business. We would be able to pay  
our employees better if we did not have  
to pay so much for electricity to run  
our businesses. Sincerely, Phyllis Johnson

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

IT WILL BE THE START OF SOMETHING THAT  
CAN PROVIDE LOWER RATES AND A STABLE  
POWER SOURCE FOR THIS AREA. YOUR  
CONSIDERATION FOR <sup>THIS</sup> LINE TO BECOME A  
REALITY WOULD BE GREATLY APPRECIATED BY  
LOCAL BUSINESSES AND COMMUNITIES MEMBERS.  
Sincerely, Rellie Jasquez  
RELLIE JASQUEZ  
NADA AUTO PARTS

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

HIGH UTILITY RATES ARE DISCOURAGING  
NEW BUSINESSES AND ENTERPRISE. WE  
NEED THE CONFIDENCE FACTOR CREATED  
BY A RELIABLE, REASONABLY PRICED  
POWER SOURCE.

Sincerely, T.W.B.J.

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

it is a real hardship for us to pay two to three times as much for electricity than most of the rest of the state. we need help to now

Sincerely, [Signature]

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

Supplement for the area since it is not included in the rate making process and we are not receiving the same benefits as the rest of the state.

Sincerely, [Signature]

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

- ① We can dispense the need for our diesel plants in VDE.
- ② Cost effective rate reductions in VDE due to Rate Mitigation.
- ③ Reduce and eliminate air emissions in winter due to less diesel generation.

Sincerely, [Signature]  
10/27/93

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

IT WILL MAKE OUR ELECTRIC RATES MORE AFFORDABLE & WE WILL BE LESS DEPENDANT ON DIESEL GENERATION PLANTS WHEN THE SOONER CRACK HEADS IS LOW OR WATER.

Sincerely, [Signature]

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

we pay the most expensive kWh at the state of Alaska and without the transmission line we won't be a future of Valdez we need you Help Thank you

Sincerely, [Signature]  
Francisco Velez Cruz  
& L. J. Miller

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

OUR ELECTRIC RATES ARE UNBELIEVABLE - Help! (ALSO FEEL LOCAL OPINIONS ON TRANSMISSION LINES SHOULD BE TAKEN INTO CONSIDERATION DURING DESIGN)

Sincerely, [Signature]  
VALDEZ MOTEL CORP.

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

Without this intertie and subsequent rate reductions our area will continue to lead the state in rates and progress will continue to be hindered by these prohibitive rates.

Sincerely, [Signature]

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

This looks to me to be a never-ending deal for all. Currently we have one of the highest electric rates in the state.

Sincerely, [Signature]  
Kindest regards,  
John Kennedy



The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

I own a business operated, that  
any financial problem to our  
business would mean the end of  
the business. With the high resources  
that Alaska has - See for it

Sincerely, J. Talack

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

This is a good idea if it will  
keep our current rates stabilized,  
or lowered.

Sincerely, P. Bismuth

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

IT WILL BE TOO EXPENSIVE  
IT GOES OVER TWO MOUNTAIN  
RANGES ACROSS AVALANCHE COUNTRY  
SO IT IS NOT RELIABLE AND IT PUTS  
VALDEZ AT THE END OF THE ROAD

Sincerely, Jerry Johnson

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

WE NEED HELP DEPARATELY TO REDUCE  
OUR ELECTRICAL BILL. IT'S HARD TO  
MAKE A PAYMENT OF \$40.00 PER  
MONTH FOR US. TWO OF US ARE ON A  
FIXED INCOME.

Sincerely, Gary A. ...  
Cust. # 17301

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

The Sutton to Glennallen transmission  
line is very important and I believe  
will work well with the Solomon Lake  
Hydro facility in Valdez.

Sincerely, Colleen Foster

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

The reports are being proving  
that we will be able to  
lower our rates substantially.

Sincerely, \_\_\_\_\_

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

IT IS NOT FEEL THAT THE TRANSMISSION LINE BETWEEN  
GLENNALLEN AND SUTTON WILL BENEFIT VALDEZ BECAUSE  
TWO INSTANCES HAVE INTERRUPTED SERVICE BETWEEN  
GLENNALLEN AND VALDEZ IN THE PAST. IF SERVICE  
IS INTERRUPTED WHILE RESERVOIRS ARE LOW (FOR WATKIN  
BENSON), WE COULD VERY LIKELY FIND THAT  
THE DIESEL PLANT IS CURRENTLY SOURCE OF POWER  
GENERATION.

Sincerely, Bill Stewart

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

*It will stabilize our electric bill & is essential  
allow us to put electricity in the copper basin  
(Lushness is Fish breeding & recreational region)  
on the Galena River.  
Knowing what the future of the state is, we  
will be prepared to utilize electricity in the future.*  
Sincerely, *Tom Sailer*

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

*It will help to bring down the  
cost of electricity to the copper Basin*  
Sincerely, *Mike Atwood*

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this e because:

*Our rates are so high now so  
then we need it for lower rates*  
Sincerely, *Dorothy Thomas*

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

*BEING AN INTEGRAL PART OF THE "RAILBELT"  
SYSTEM IS PARAMOUNT TO THE FUTURE DEVELOP-  
MENT OF ALASKA. TAKE A LOOK AT THE PACIFIC  
NORTHWEST & CANADA'S "RAILBELT OR "GRID"  
SYSTEMS. NEBO I SAY MORE.*  
Sincerely, *Orad Barnhard*

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

*our rates are very high. many  
generate their own power because  
of this. lower rates would sell  
more power and encourage  
businesses & families  
Thank you.*  
Sincerely, *Richard King*

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

*IT WILL PROVIDE MORE RELIABLE, LESS  
RESPONSIVE POWER. THIS CAN ONLY HELP  
THE AREA COMMUNITY.*  
Sincerely, *Robert Sutton*

Dear Mr. Harris.

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

The price of eggs in China does affect all of us. When any part of Alaska prospers, we all benefit. Likewise, stagnation of any part of Alaska, is like a cancer eating away the good of our state - Copper Valley NEEDS the tie-in with the rail belt to become ~~Sincerely, Tom M. Pittman~~ prosperous. And personally, I (a 77 yr. old veteran of WWII, wounded 3 times) need the tie-in. THE NEED IS URGENT -

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

Our rates are outrageous and are NOT stable. This inhibits economic growth in the area. Our rates are one of the highest in the state. This line would solve our power needs for many years to come.

Sincerely, ~~Shannon~~

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

WITH THE FERCE RESISTANCE TO THE T-LINE IT WILL TAKE A DECADE TO BUILD - BE REALISTIC BUILD THE CO-GEN PLANT

Sincerely, ~~Jim~~

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

Our energy rates are too high. We need stable power. The ~~state's~~ <sup>state's</sup> ~~best~~ <sup>best</sup> in Glennallen are very ~~low~~ <sup>low</sup>. ~~Someone~~ <sup>Someone</sup> ~~cannot~~ <sup>cannot</sup> provide year round power. We desperately need this inter-tie. We do NOT want a coal-fired power plant.

Sincerely, ~~Robert~~

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

We desperately need to pursue all options for lowering power cost in our area (The highest in the state)

Sincerely, ~~Jonda~~

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

For more efficient use of natural resources and lower costs it is important to have this tie line.

Sincerely, ~~Paul~~

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

There really is not any other place in this nation that pays the high cost for electric like we do. It will also help create more jobs to be a benefit to area

Sincerely, ~~John~~

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

Other areas, with lower rates, are being tied to grids. After the state revoked the grant for development of the Selomes Gulch hydro plant, electric rates in this area were forced so high that there is no chance of industrial development. A related remedy would be to fund the Sutton intertie. This would allow some lowering of rates and make this area a part of the state of Alaska.

Sincerely, ~~Richard~~  
Richard D. Rutledge  
POB 353  
Valdez AK 99601

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

TO LOWER OUR UTILITY RATES

Sincerely, Pamela A. Ulvestad

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

Quite living to the people when you build  
Sutton you said it would be cheaper and  
The cost almost doubled for half the staff  
then it might be a biggy

Sincerely,

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

THE LINE WILL PROVIDE ANOTHER LINK  
IN EVENTUALLY CREATING A LOOP FED  
SYSTEM WITH AN ULTIMATE TIE TO  
THE TRANSMISSION SYSTEM A DELTA JCT.  
FROM ANCHORAGE → FAIRBANKS → DELTA →

GLENN ALLEN → PALMER → ANCHORAGE.  
IN ADDITION ANOTHER MAJOR GEOGRAPHIC  
AREA (THE CORRIDOR FROM GLENN ALLEN TO VALDEZ)  
WILL BE TIED TO THIS VEESATIL SYSTEM.

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

21¢ to 26¢/Kwhr electrical  
is too expensive and it should help  
the continuity of services (sewer  
interruptions) with medical electrical  
services

Sincerely, Elaine Harris

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

For lower electric rates  
Economic growth

Sincerely,

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

IT WILL HELP REDUCE COSTS

Sincerely,

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

IN ORDER TO HAVE FUTURE GROWTH OF ANY  
KIND WE NEED LESS EXPENSIVE AND STABLE  
LOWER COSTS - WE, AND OUR CONTRIBUTIONS  
TO THE STATE ARE JUST AS IMPORTANT NOW,  
AND POSSIBLY MORE IN THE FUTURE, AS ARE  
THE SO CALLED RAILBELT COMMUNITIES

Sincerely,

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

the high cost of electricity, the  
fuel fuel is preventing new  
business as well as returning  
established businesses. Currently,  
my monthly bill is now over  
three times what it was 25 yrs. ago.

Sincerely,

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

Our present electric service an average of \$3.00 per premium for electrical heat-ups. Here in Glennallen I must charge \$5.00 and get many complaints. I need to increase my charge to \$6.00 to cover costs but am afraid it will drive customers away.

Sincerely, J. Ward  
P.O. 173 Glenn Hwy.

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

of the high rates we are currently paying and will pay in the future

Sincerely, Bob Lewis

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

Rates are too high

Sincerely, John M. Hefner

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

The cost of electricity here is very high. It is not unusual for my winter bills to be \$300.00 and believe me, we try to conserve.

Sincerely, Michael Morgan

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

WE PAY TOO MUCH, 19¢ PER Kw Hour

Sincerely, [Signature]

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

We do not need this transmission line. It's a big lie like the Salmon Gulch project, they told us the rates would go down with the dam and they just keep going up. We do not need it!!

Sincerely, Raymond [Signature]

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

We need more businesses in town, but ~~prices~~ presumably due to the high electric rates it is not feasible for them to operate.

Sincerely, [Signature]

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

We need to look at what will best serve the future of Valdez and allow us to grow without constant re-doing. We also need to have the opportunity for economical power as do other Alaskan communities.

Sincerely, [Signature]

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

Thank you

Sincerely, Karen McCune

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

THE TIE-LINE FROM SUTTON TO  
GLENNALLEN IS NOT COST EFFECTIVE TO  
THE MAJORITY OF ALASKAN RESIDENTS.  
THE MONEY SHOULD BE SPENT ELSE-  
WHERE IN THE STATE

Sincerely, D. Dixon

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

The cost of power in Valdez is way too high.  
Businesses have trouble making ends meet and  
have to charge rates that are too high. Industries  
while they have short term high costs are  
essential to long term stabilization of the  
Alaska's power grid. Sincerely, Paul H. Allen

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

Our plant is getting old they have  
good many hours on them at the moment  
we are growing and will be running out  
of power? Please hurry as I am 86  
and live here since 1960 - please keep us  
Sincerely, Al Alamoak

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

What's one more power line if it will lower  
power bills?

Sincerely, Robert [unclear]

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

eliminate the use of fossil fuel  
to reduce air pollution. Also  
stabilize very high electrical  
rates. This project is worth-  
while!

Sincerely, Paul [unclear]

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

We need to stabilize and equalize power costs throughout the state. We need to provide power to as many people and areas as possible to encourage statewide development.

Sincerely, Mary M. Murphy

**Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:**

We need to lower the cost of utilities to individuals and businesses.

Sincerely, Melvin Stinson

Dear Mr. Harris -

7/5/93

The electric Company said to write you about my problem. I can't afford any more electricity than I already use, I can't really afford that I want to start a sawmill but after talking to them I can't afford the electric bill. They told me about the Glennallen to Sutton intertie that might help us out here - Please approve it - so I can be self sufficient & get my family's old welfare

Jaime Dowdy

Dear Sir -

11/3/93

Please assist in getting the Sutton to Glennallen transmission line funded. Nobody can afford 2nd a kWh - My kids have to do without a lot of things like quality food & clothes so they can have lights & heat

Earnie Higgins

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

We need to lower the cost of  
utility to individuals and businesses

Sincerely, Melvin Spivak

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

We need to stabilize and equalize  
power costs throughout the  
state. We need to provide  
power to as many people and areas  
as possible to encourage statewide  
development.

Sincerely, Mary McHugh





Dear Mr. Harris,

# NO RAILBELT

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

- WHY NOT DEVELOPE ANOTHER ~~POWER SOURCE~~ <sup>POWER SOURCE?</sup>
- NO ~~GUARANTEE~~ <sup>GUARANTEE</sup> OF ~~PROJECT COST~~ <sup>PROJECT COST</sup>
- NO ~~MAXIMUM UTILISABLE POWER LIMITS~~ <sup>MAXIMUM UTILISABLE POWER LIMITS</sup>
- WHO WILL PAY FOR THIS LINE - THEM?
- NOT ENOUGH COMMERCIAL USE & TAX BASE TO WARRANT THIS EXPENSE
- WHY TIE THE EASTERN PART OF THE STATE TO ANCHORAGE, TOK, GUNW, VALDEZ STATION?

Sincerely, J. Blum

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

It is the most cost effective solution to our present and future needs.

Sincerely, Don Johnson

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

CUFA rates are outrageous. The rates need to be stabilized. If the line can go through this will help to promote economic growth in the community.

Sincerely, C. Friley

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

Our electric bill are very high in our area.

Sincerely, Susan C. Larson

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

I think its a very good idea

Sincerely, Howard A. Quenni

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

Our power is very expensive and CVEA's old Diesel generators will continue to require expensive maint. The environmental impact will not be that obvious that we should scrap the project. We need the intake

Sincerely, Donald L. Resch

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

We need lower electric costs - we're paying premium rates compared to elsewhere.

Sincerely, M. Howard

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

A STATEWIDE GRID IS THE ULTIMATE GOAL WHICH WILL <sup>HELP</sup> ALL CONSUMERS HAVE A SOURCE OF DEPENDABLE & ECONOMICAL POWER.

Sincerely, J. C. King

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

OF THE SECURITY OF BEING "TIED" TO A "GRID" SYSTEM. THE "RAILBELT" IS ALASKA'S "GRID". PLEASE BE PART OF THE FUTURE SECURITY OF ALASKA BY SUPPORTING THIS MEASURE.

Sincerely, Bruce Bantard

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

to continue to burn a non-renewable fossil fuel to produce electricity is environmentally irresponsible.

The high rate of kWh costs charged to consumers are extreme, especially for people on low or fixed incomes. I personally have worked hard to follow procedures for usage conservation and still find my monthly bill is far beyond what is reasonable/fair compared to other areas in Alaska.

Sincerely, N. Richwine

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

C.V.E.A. customers are tired of paying more than everyone else in the State for their electricity.

Sincerely, [Signature]

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

WE NEED A FAIR AND EQUITABLE RATE INSTEAD OF ONE OF THE HIGHEST.

Sincerely, [Signature]

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

our electric bills are out of sight and the transmission line is an environmental sound solution which could only benefit this area for years to come.

Sincerely, Burt Sandvik

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

our electric rates are among the highest in the State.

Sincerely, [Signature]

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

For better security of having stand by power and maybe from being on gas power it bring the rates down.

Sincerely, [Signature]

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

Sincerely, William M. Krasinski

Mr. Harris,

people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

it is the most expensive power rate  
in the area and we need to get away  
from fossil fuels.

Sincerely, [Signature]

residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

the diesel generating plants won't  
be cost effective forever. It  
appears there are no other adequate  
choices. Coal burning, nuclear, etc.,  
isn't acceptable choices for this area.

Sincerely, Tim Saskowsky

Mr. Harris,

people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

to help reduce the cost of electricity.  
to better utilize our natural  
resources  
to bring generator use.

Sincerely, Loren Kramer

residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

we need to lower our rates  
as they are one of the highest around

Sincerely, [Signature]

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

it can replace fossil generation  
eliminate air emissions, reduce  
oil volatility rates and long  
term reliable power will  
allow our community to prosper  
& not need to add more generation  
facilities in the future. Sincerely, [Signature]

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

THE POSSIBILITY OF LOWER  
RATES!!

Sincerely, GLENNALLEN  
VOLUNTEER FIRE  
DEPT.

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

As a business owner in the  
Copper Basin, I'm very interested in  
rate stabilization. Please do all you  
can to make this line a reality.

Glennallen Sporting Goods  
Sincerely, [Signature]

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

A part of the progress for our Corp

Sincerely, [Signature]

Please fund the Sutton to Glennallen  
intertie Kenny Lake Community League  
has to fund out Community Hall  
Community Well ect. Our highest  
expense is electricity - higher even  
than heat. 400 people use the  
well + the bills are so high  
it is a great burden on us to keep  
this service going

Kenny Lake Community League

Please approve Sutton-Glennallen  
Intertie -

We are sorely in need of relief  
here. Our electric bills make  
it very difficult to survive  
at -50° in the winter

Sincerely

Michelle Tunnell

We need the Sutton to Glennallen  
Intertie:

I AM AN OLD WOMAN ON Soc.  
Security, I don't qualify for  
assistance by BHI a month -  
My electric is so high, I keep  
lights off + the heat turned  
down - Its always cold + dark  
I can't afford any more electric  
Nora Wingham

Mr. Harous -

Please help us get better or a  
least no higher electric rates -  
We pay the highest rates in Alaska -  
Doesn't seem fair to me -

The Sutton Glennallen intertie  
could help - this is a very depressed  
area - a little relief in this area  
sure would help.

Thank you Daryl Blumkin



The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

I think it just might  
lower our rates besides  
helping the users to be along  
the Glenn Heritage

Sincerely, Regina L. Leaker

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

I think our rates can be lower  
they can't get higher  
I haven't seen a light bill under 100<sup>00</sup> in  
years that is summer in the winter  
they are 200<sup>00</sup> or 300<sup>00</sup> per month

Sincerely, Wade L. Liska

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

Dr. M. Harris

8-21-93

My family owns property in Copper Valley  
and we are extremely concerned with  
the cost of electricity in the area. Our  
property is near Chitina. Hydro provided electricity  
is an earth friendly energy source and should  
receive priority.

Sincerely, Leslie Byrne  
Please support the proposal for hydro power  
rather than Diesel generated power.

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

We Do Not Need  
This  
It will Not Reduce  
Our Rates & Is Not  
Wanted By Me

Sincerely, Jack Bates

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

To reduce the cost and attract  
industry and provide for long term  
growth. Possibly most important is to  
have another power in an emergency

Sincerely, Anka Mitchell

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

It provides a long-term solution to  
CVEA's high cost of power production. CVEA's  
generators & equipment is old and nearing the  
end of its useful service life. The initiative  
will provide low cost gas fired electricity  
to the Copper River Basin & stimulate  
economic growth

Sincerely, Herb Simon

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

I don't know if we need  
this line, but all of us  
in the Valley need cheaper  
rates.

Sincerely, Mark Simon

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

ONLY A SOUTH CENTRAL, VALDEZ  
RAILBELT GRID WILL REDUCE THE  
OPERATING COSTS AND OPEN THE  
POSSIBILITY OF CO-GENERATION  
WITH ALYESKA, OR SELL POWER  
TO ALYESKA.

Sincerely, J. D. Forte  
Box 1045  
VALDEZ. 99686

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

It will significantly lower power costs & provide for potential long term growth in our area

Sincerely, Steve Jones

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

It would lower our kWh rates we could tie Solomon Gulch Hydro with the Railbelt power & use our Diesel Generators for stand-by if needed.

Sincerely, Robert N. F. ...

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

Our rates will decrease ... AND ... We will NOT rely so heavily on our Non-renewable resource of Diesel.

Sincerely, Mr. Ruhl

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

it will allow people living in the Copper River Basin to have electricity at a more reasonable cost - some don't have access to any electricity now. It will lower electrical costs for the people of Valdez. It will provide emergency back-up power to Valdez in the Copper River

Sincerely, Patricia Collins

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

our electric rates can be lowered if the transmission line is built.

Sincerely, Joan S. ...

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

It is essential for the economic growth of the area to have a stable, affordable source of power. Additionally, it will make this area attractive to recreational activities by encouraging people to fish and play in the Copper Basin.

Sincerely, M. White

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

Because of the high cost of electrical energy consumption of CVEA has been higher than most of the rest of Alaska low life styles and economic development cannot improve without cheaper power the transmission line is the most economical way to bring cheaper power to the area

Sincerely, Fred T. Williams

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

we need to keep our inflation low especially because everything else is going up in cost

Sincerely, Elmer ...

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

I support this, it is pro-development. I feel it will benefit the city of Valdez and other cities that are involved

Sincerely, E. Du Uden

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

unlike you lucky folks in Anchorage who pay under 10¢ per kWh, we pay 16¢! My electric bill for a 1200 sq ft house in the summer is over \$100.00 per month! Please have pity on us!  
Sincerely, Steve Whitaker

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

\* WE NEED CLEAN & ABUNDANT POWER. OUR CURRENT DIESEL GENERATION IS DIRTY, INEFFICIENT, AND COSTLY. THIS IMPACTS ME EACH MONTH WHEN I PAY AN INFLATED ELECTRIC BILL. IT REDUCES THE ABILITY OF BUSINESS TO COMPETE AND IT ADDS POLLUTANTS TO OUR AIR, GROUND & WATER. I BACK THE T-LINE.

Sincerely, Paul DeStefano  
247 DeStefano  
Box 3293  
Valdez, AK 99686

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

WE COULD HAVE FOR LOWER RATES IN VALDEZ? YES! RIGHT!

Sincerely, [Signature]

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

We currently pay the highest kWh rate charge in the nation along with fuel, fuel heating, housing, child support, city taxes. I love this state and my family is here. But I could use a financial break somewhere (Help) Sincerely, Maud J. Mubaly

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

CVEA's diesel generating equipment is getting old. The Sutton to Glennallen Transmission line would lower our present .1590¢ kWh price. Lower costs could promote industry.  
Sincerely, Tim A. Wallis

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

I would like to be the recipient of lower electric bills. Help lower the (Alaska) Highway as CVEA is already doing. Try help our rates 150-200% monthly. That's all!

Sincerely, [Signature]

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

THE TRANSMISSION LINE WILL OPEN UP THE DISTRICT FOR SMALL RUN OF THE RIVER HYDRO PROJECTS. THE VINDI? AREA HAS THERMIDONS POTENTIAL FOR 11,000 PROJECTS BUT DOESN'T HAVE THE DEMAND FOR THE POWER. WE ALSO NEED LOWER RATES IN VINDI?  
Sincerely, Bill Wilson  
ALASKA ELECTRIC



Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

Our current electric rates  
are deterring small business  
start-ups in our area. Also, fears  
of increases to pay for new  
diesel plant.

Sincerely, Dick Smith

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

I support the coal fired  
plant which is proposed to be  
located in Glennallen and  
tied into CVEA.

Sincerely, Long Skattred

**The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:**

It will make a more economical  
place to start a business.  
Lower our rates for electricity.  
It won't ruin the landscape  
very much. I believe these  
fears are unfounded.

Sincerely, David Poff

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

Economic Development is being stilted by high energy costs - stabilize rates - leave \$'s in the community - not on electric

Sincerely, [Signature]

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

HOPEFULLY IT WILL REDUCE OUR COSTS IN THE LONG RUN. I THINK WE NEED TO GET AWAY FROM DIESEL POWER AS IT IS COSTLY AND A SOURCE OF POLLUTION. LET'S DO IT!

Sincerely, [Signature]

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

I am in favor of the Intertie only if CVEA shuts down the Diesel Gensets and uses them only for standby or emergency purposes

Sincerely, [Signature]

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

We want the same consideration as the rate payers of Anchorage

Sincerely, [Signature]

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

I just retired last June my wife and I plan to live in our home here in Glennallen as long as we can afford to do so. The high cost of power may be the one cost that may force us to leave Alaska. Sincerely, [Signature]  
Sue Rosecrance

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

An integrated intertie is a basis to development and progress. The more rural communities get the least benefits from "non-renewable" resources.

Sincerely, [Signature]

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

Yes we do need this line.

[Signature]  
Sincerely, [Signature]

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

Please support the Sutton to Glennallen transmission. It is greatly needed for long-term economic development for Valdez. We can't afford the ever increasing electrical rates in this town. WE NEED YOUR ASSISTANCE! THANKS. Sincerely, [Signature]

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

WE SHOULD BE ON A PAR WITH VALLEY POWER COSTS WE WOULD BE ABLE TO DEVELOP THE AREA AND POLYMER ATTRACT SMALL INDUSTRY SALES WOULD BENEFIT THE STATE AND THE ALASKA POPULATION OVERALL.

Sincerely, [Signature]

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

I feel that this statute will at some point in time reduce our cost of power and lessen pollution caused by fossil fuel. It will also give power to some who do not have power at this time -

DO IT!

Sincerely, Bill Sullivan

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

yes TO Lower Rates

Sincerely, Copper River  
cash

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

The Copper River School Dist would be able save money on electricity that can be better spent on our childrens education. That's a strong economic impact.

Sincerely, Pat Smith

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

We will not benefit from this line. This is an effort to do away with diesel plants and operators which will leave us in the dark & cold for great lengths of time in event of an earthquake or avalanche in Thompson Pass. <sup>Sincerely,</sup> Manipulating numbers won't make rates go down. They will go up. NO Transmission line!

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

We hope it will reduce the unreasonable electricity costs that we are experiencing in Glennallen. Our monthly bill here is three times as much as it was in Tanana, King Cove, or Kake, Alaska.

Sincerely, Richard Pea

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

We need this project only if it will reduce our electric rates.

Thank you for your consideration

Sincerely, Copper Center  
Site Winter Corp.

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

it will stabilize rates which will certainly go up if some diesel engines have to be purchased.

Sincerely, Don & Smith

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

OUR RATES ARE THE HIGHEST IN THE STATE AND WILL KEEP GOING UP UNLESS WE CAN GET SOME RELIEF WITH THIS INTERTIE

Sincerely, [Signature]

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

SIR'S NOT PAYING 200<sup>00</sup> PER MONTH ELECTRIC + 200<sup>00</sup> HEATING FUEL PER MONTH IN THE WINTER MONTHS, REALLY APPEAL TO ME. BY CONNECTING THIS INTERTIE, IT WOULD BENEFIT THE COMMUNITY & ALSO REDUCE AIR POLLUTION GIVING OUR CHILDREN SOMETHING TO LOOK FORWARD TO.

Sincerely, Max M. Cox  
MARVIN M. COX

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

Should thoroughly study availability of Natural Gas & Coal also

Sincerely, [Signature]

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

\_\_\_\_\_

Sincerely, \_\_\_\_\_

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

I had previously sent in a questionnaire supporting the intertie, which I do

Sincerely, Michael Dundas

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

Then our electric rates will only be 2.5 X higher than they are in Anchorage.

Sincerely, Wm Dale Gilmore

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

If you pass a law relieving me from paying for electricity, I would like to see a law passed relieving plants and homes from

Sincerely, [Signature]

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

Electricity must be sent to homes here out of power lines in Valdez. These lines have all this rust around them and they are not of this world. I don't think you'd like to pay what we do here in Valdez.  
Sincerely, [Signature]  
Box 1347  
Valdez, Alaska 99686

Please help the residents and businesses served by Copper Valley Electric

Replace diesel generation by building a coal/wood fired generating plant to utilize beetle-killed spruce and fuel cleared from construction and fire break sites. Also to provide cheaper power than oil fired plants and to create jobs here instead of profits to oil companies

Sincerely, Sam Lightfoot

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

it will lower the cost of providing electricity here, and the cost of receiving it. We still have many families who use generators or are without electricity. Some of these families have children, and live in sub-standard housing. If cheaper electricity can improve these 3rd world conditions, I support it. Sincerely, [Signature]

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

Ultimately stable power costs - more reliability in our service

Sincerely, Mike Sine

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

SIR'S, NOT PAYING 200<sup>00</sup> PER MONTH ELECTRIC + 200<sup>00</sup> HEATING FUEL PER MONTH IN THE WINTER MONTHS, REALLY APPEAL TO ME. BY CONNECTING THE INTERTIC, IT WOULD BENEFIT THE COMMUNITY + ALSO REDUCE AIR POLLUTION GIVING OUR CHILDREN SOMETHING TO LOOK FORWARD TOO. Sincerely, Mar M. Cox

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

It may help to lower our electric bills etc. also other people in the area not have electricity.

Sincerely, Roy Bentsch

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

A cleaner environment. [Signature]

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

High electric rates have discouraged growth and economic development in this area for far too long. Linking with the railbelt will benefit us and the area in ways too numerous to mention. We need this intertie! 17 year Valdez

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

Then our electric rates will only be 2.5 X higher than they are in Anchorage.

Sincerely, Wm Dale Gilney

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

Something must be done to  
lower our cost of power here  
in Yeldy. make the site have  
all this water around here and get  
diverted out of this world. I  
don't think you'd like to pay what  
we do here in Yeldy.  
Sincerely, Mr. J. P. Harris  
Box 1347  
Yeldy, Alaska 99686

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

OUR RATES ARE THE HIGHEST IN THE  
STATE AND WILL KEEP GOING UP  
UNLESS WE CAN GET SOME RELIEF  
WITH THIS INTERTIE

Sincerely, [Signature]

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

I had previously sent in a  
questionnaire supporting the intertie,  
which I do!

Sincerely, Michael Duane

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

should thoroughly study  
availability of Natural Gas &  
Coal also!

Sincerely, L. St. Amant

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

It would provide a more reliable and less  
costly source of electricity for our  
community. I would like to see our  
diesel generating plants shut down for  
good.

Sincerely, Robert G. Zumbie

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

I feel that this intertie will at  
some point in time reduce our cost  
of power and lessen pollution caused  
by fossil fuels. It will also give  
power to some who do not have  
power at this time -

DO IT! Sincerely, Bill Sullivan

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

The Copper River School District  
would be able save money  
on electricity that can be better  
spent on our childrens education  
That's a strong economic impact.  
Sincerely, Bob Stroh

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

We hope it will reduce the  
unreasonable electricity costs that  
we are experiencing in Glennallen.  
My monthly bill here is three times as much  
as it was in Tanana, King Cove, or Kake, Alaska.

Sincerely, Richard Lee

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

*it will stabilize rates which will certainly go up if new diesel engines have to be purchased.*

Sincerely, *Don Smith*

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

*We need this project only if it will reduce our electric rates.*

*Thank you for your consideration*

Sincerely, *Copper Center  
State Water Corp.*

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

*WE SHOULD BE ON A PAR WITH VALLEY POWER COSTS. WE WOULD BE ABLE TO DEVELOP THE AREA AND PERHAPS ATTRACT SMALL INDUSTRY. SALES WOULD BENEFIT THE STATE AND THE ALASKA POPULATION OVERALL.*

Sincerely, *[Signature]*

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

*I just retired last June. My wife and I plan to live in our home here in Glennallen as long as we can afford to do so. The high cost of power may be the one cost that may force us to leave Alaska.*

Sincerely, *Mike Roscovius -  
Sue Roscovius*

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

*Yes TO Lower Rates*

Sincerely, *Copper River  
CASH*

Dear Mr. Harris,

The people of the Copper Valley and the City of Valdez need your help so a transmission line can be built to tie CVEA into the Railbelt. We, the member/owners of CVEA, can't do it alone; we need your help and the financial support of the State of Alaska. We need this line because:

*An integrated intertie is a basic to development and progress. The more rural communities get the least benefits from "non-renewable" resources.*

Sincerely, *[Signature]*

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

*We will not benefit from this line. This is an effort to do away with diesel plants and operators which will leave us in the dark & cold for great lengths of time in event of an earthquake or avalanche in Thompson Pass. Manipulating numbers won't make rates go down. They will go up. NO Transmission line!*

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

*Yes we do need this line.*

Sincerely, *[Signature]*

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

Please support the Sutton to Glennallen transmission. It is greatly needed for long-term economic development for Valdez. We can't afford the ever increasing electrical rates in this town.  
WE NEED YOUR ASSISTANCE! THANKS.

Sincerely, W. Duchon

Please help the residents and businesses served by Copper Valley Electric get the Sutton to Glennallen transmission line built. We need it because:

Economic Development is being stifled by high energy costs - stabilize rates - leave \$'s in the community - not on electric

Sincerely, D. Stah

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

HOPEFULLY IT WILL REDUCE OUR COSTS IN THE LONG RUN. I THINK WE NEED TO GET AWAY FROM DIESEL POWER AS IT IS COSTLY AND A SOURCE OF POLLUTION. LET'S DO IT!

Sincerely, Lance Groundwater

The residents and businesses served by Copper Valley Electric need your help and support to make the Sutton to Glennallen transmission line a reality. We need this line because:

I am in favor of the Inter tie only if CVEA shuts down the Diesel Gensets and uses them only for standby or emergency purposes

Sincerely, W.H. Knight

Dear Mr. Harris,

Neighbor helping neighbor is how this nation and this state were built. It is also how we, the member/owners of CVEA, live. We are asking for your help and support to get a transmission line built between Glennallen and Sutton. We will benefit from this line because:

We want the same consideration as the rate payers of Anchorage.

Sincerely, Chris E. Laddage



DICK

RECEIVED

MAR 26 1993

DOCUMENTATION OF PUBLIC COMMENTS  
ALASKA ENERGY AUTHORITY  
COPPER VALLEY INTERTIE FEASIBILITY STUDY

ALASKA ENERGY AUTHORITY

You are invited to comment on the proposed Copper Valley Intertie Project which would consist of a 138-kV electric transmission line from Sutton to Glennallen. The Alaska Energy Authority is conducting the first Phase of a planned two-phase feasibility study of the Intertie. Two sets of public meetings will be held in Phase 1 at which comments may be voiced. Phase 2 of the feasibility study will follow in the second half of 1993, if funding permits, and would include one additional set of public meetings.

The comments of all parties who may be affected by the construction and operation of the Intertie are important to the study. Verbal comments will be recorded at each public meeting. In addition, this comment sheet is provided as a convenience to any party wishing to comment. However, use of this comment sheet is not necessary in order for your comments to be considered. We request that any comments be as specific and detailed as possible. Do not feel limited by the space provided; attach additional sheets as necessary. Attached for your reference are seven maps showing two preliminary route alternatives identified as a starting point for the feasibility study.

Please submit your comments as soon as practical to the following:

Mr. Richard Emerman  
Alaska Energy Authority  
P.O. Box 180869  
Anchorage, AK 99519-0869

Comments will be included in the reports provided they are received at least two weeks prior to the publication of the reports. Tentative dates are June 15, 1993 for the Phase 1 report and October 1, 1993 for the draft Phase 2 report.

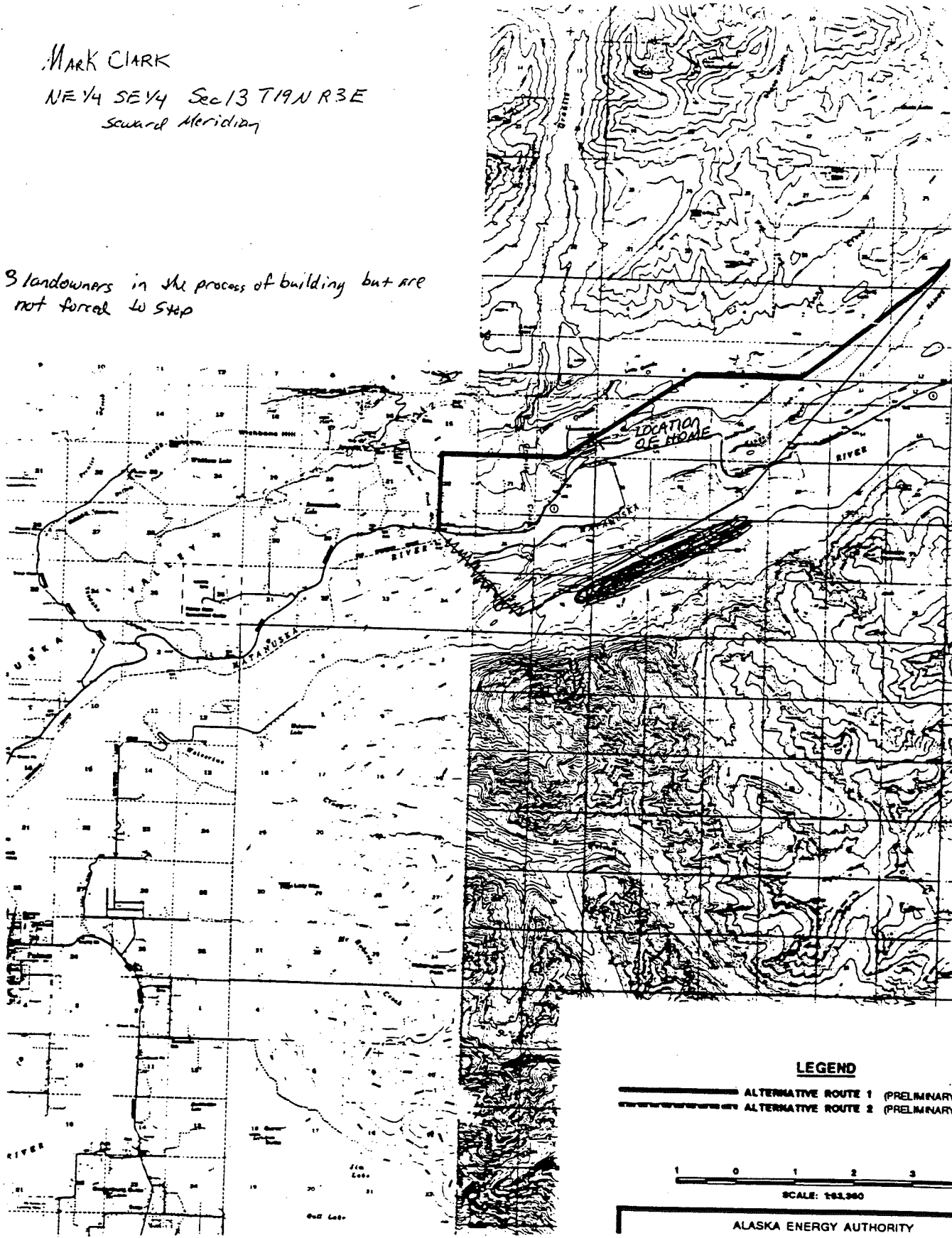
Name of Person Commenting: Mark H. Clark  
Mailing Address: P.O. Box 242  
Sutton AK 99674

COMMENTS: SEE ATTACHED LETTER

MARK CLARK

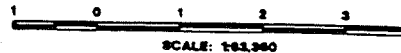
NE 1/4 SE 1/4 Sec 13 T19N R3E  
Seward Meridian

3 landowners in the process of building but are  
not forced to stop



**LEGEND**

- ALTERNATIVE ROUTE 1 (PRELIMINARY)
- - - - - ALTERNATIVE ROUTE 2 (PRELIMINARY)



SCALE: 1:62,500

ALASKA ENERGY AUTHORITY

**APPENDIX C**  
**RESOLUTIONS**

COPPER VALLEY ECONOMIC DEVELOPMENT COUNCIL

RESOLUTION 93-007

SUPPORT FOR THE THE SUTTON TO GLENNALLEN INTERTIE

WHEREAS, the Copper Valley Economic Development Council is a nonprofit corporation with the State of Alaska, and was formed as a partnership of the public and private sectors of the Copper Valley region of Alaska to address the economic problems and potential growth of the region; and

WHEREAS, the Copper Valley Economic Development Council Board of Directors recognize the major limiting factor to economic development within the Copper Valley region is the high cost of electrical power; and

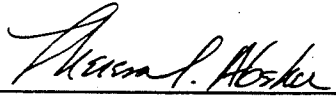
WHEREAS, the residents and businesses in the Copper Valley region receive central station service from Copper Valley Electric Association, Inc., and pay some of the highest unsubsidized rates in the State of Alaska; and


WHEREAS, Copper Valley Electric Association has continually looked for ways to reduce the cost of power in this region and has determined to date that the only permanent fix to the rate situation would be the Sutton to Glennallen intertie, connecting Copper Valley residents to the Railbelt grid; and

WHEREAS, stable or reduced electrical rates would support the economic development within our region, it would entice new businesses as well as encourage current businesses to expand, as identified in our Economic Development Plan; now therefore

BE IT RESOLVED, the Copper Valley Economic Development Council supports Copper Valley Electric Association's efforts and respectfully requests the Department of Community and Regional Affairs; Division of Energy to support and approve the loan funding for the design and construction of the Sutton to Glennallen intertie.

Approved and signed this 27th day of October, 1993, in Glennallen, Alaska.

  
\_\_\_\_\_  
Secretary (attest)

  
\_\_\_\_\_  
President

(seal)

CHICKALOON VILLAGE TRADITIONAL COUNCIL  
P.O. BOX 1105  
CHICKALOON, AK 99645  
(907) 745-0707  
(FAX) 745-0606

RESOLUTION 93-07-03

IN OPPOSITION TO THE PROPOSED COPPER VALLEY INTERTIE

WHEREAS, Chickaloon Village is a distinct, independent traditional community, and is exercising powers of self-government by reason of its original traditional tribal sovereignty passed down from its ancestors since time immemorial; and

WHEREAS, the Chickaloon Village Traditional Council is the governing body of Chickaloon Village as recognized by Chickaloon Village and the United States of America; and

WHEREAS, the Chickaloon Village Traditional Council is responsible for protecting the health and well being of Chickaloon's present and future members; and

WHEREAS, the Chickaloon Village Traditional Council is also responsible for the protection of the lands, waters, plants and animals within Chickaloon's traditional land and subsistence use areas; and

WHEREAS, the Chickaloon Village Traditional Council is deeply concerned about the potential threats to humans, plants and animals of the proposed "Copper Valley Intertie" Project presently being studied and developed by the Alaska Energy Authority; and

WHEREAS, the Chickaloon Village Traditional Council is aware of reports linking high voltage lines such as the one proposed with serious health problems including cancer and birth defects in both humans and animals; and

WHEREAS, the current proposed route for the Intertie passes directly through the traditional lands and subsistence use area of Chickaloon Village, and its construction would cause disruption to the subsistence activities of village members as well as produce a serious detriment to the natural appearance and physical beauty of the area; and

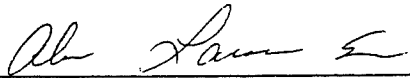
WHEREAS, Chickaloon Village representatives have recently attended hearings on this issue conducted by the Alaska Energy Authority and have been joined in their opposition by the great majority of other Matanuska Valley residents in attendance, yet the State of Alaska Legislature continues to proceed with these plans despite the strong public outcry from this area.

THEREFORE BE IT RESOLVED that the Chickaloon Village Traditional Council hereby formally resolves to oppose the construction of the Sutton to Glennallen "Copper Valley Intertie", and will use every legal means at its disposal to prevent the construction of this line; and

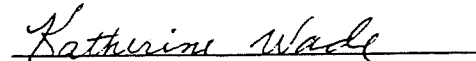
BE IT FURTHER RESOLVED, that the Chickaloon Village Traditional Council instructs Chickaloon's Tribal Legal Coordinator and the Chickaloon Village Environmental Protection Program to continue monitoring this situation, communicating our opposition to State and other involved officials, and to make further recommendations to the Council regarding its options and alternatives for action in this matter; and

AND BE IT FINALLY RESOLVED that Chickaloon Village Traditional Council authorizes a representative(s) from the Chickaloon Village Environmental Protection Program to meet with our relatives in the Copper Valley area Villages to discuss our concerns in this matter which is of great importance to all concerned.

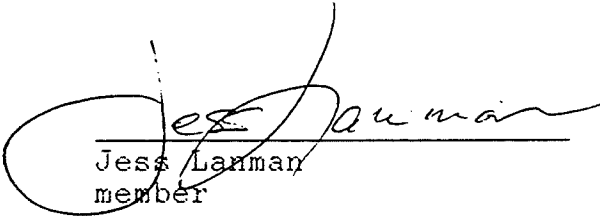
DULY CONSIDERED AND APPROVED JULY 3, 1993



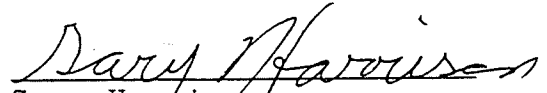
Alan Larson  
Tribal Chairman



Katherine Wade  
Tribal Elder



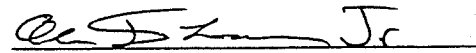
Jess Lanman  
member



Gary Harrison  
Tribal Treasurer



George Ondola  
Tribal Elder



Alan Larson Jr.  
Tribal Secretary



THE GREATER SUTTON  
CHAMBER OF COMMERCE

P.O. Box 24  
Sutton, Alaska 99674

A RESOLUTION OF THE GREATER SUTTON CHAMBER OF COMMERCE  
CONCERNING THE PROPOSED COPPER VALLEY INTERTIE FROM  
SUTTON TO GLENNALLEN

WHEREAS, the initial Copper Valley intertie proposal of 1989 was soundly opposed by residents along the Glenn Highway corridor; and

WHEREAS, the Matanuska-Susitna Borough Assembly resolved not to support the proposal of 1989 through Resolution 89-113; and

WHEREAS, the area involved by the proposed intertie still relies on tourism and the scenic beauty as a source of economy; and

WHEREAS, the negative impact on wildlife habitat and historic trails cannot be entirely remediated; and

WHEREAS, the possible health impacts from electromagnetic fields pose a very real fear for local residents that studies have shown justified.

NOW, THEREFORE, BE IT RESOLVED that the Sutton Chamber of Commerce recommends that alternative sources for the power needs of the Copper Valley Electric Association be explored and considered for resolving this issue.

ADOPTED by the Greater Sutton Chamber of Commerce  
this Fifth day of April, 1993.

Lynne Woods, President

ATTEST:

Barbara Leppanen, Board of Directors

# **RESOLUTION**

WHERE AS, the Matanuska - Susitna Borough Assembly adopted resolution 89 - 113(sub) on September 5, 1989 concerning the Railbelt Intertie Feasibility Study, draft final report dated April 1989; and

WHERE AS, the assembly expressed therein concerns about the impact of the proposed northeast intertie on private property, habitable structures and scenic resource of the Glenn Highway; and

WHERE AS, the community council of Chickaloon wishes to reiterate those concerns and more about the proposed intertie's impacts on;

- the very popular recreational areas traversed, including sections of the historic Chickaloon - Knik - Nelchina Trail and other well used trails.

- opening up the Matanuska Moose Range with concomitant impacts on wildlife and habitat

- an area of outstanding scenic beauty, where the local economy is dependent upon income from tourism;

- the life style and future of the area as stated in the Chickaloon Comprehensive Land Plan

- the acceptance and compliance of a conditional use permit for electrical transmission lines as stated in regulations of the Chickaloon Special Land Use District;

- human biological systems by electromagnetic fields, which are still under study.

Additionally, the council believes that M.E.A, C.V.E.A and the A.E.A have not researched effective alternatives such as the existing new coal fired generating facility Hobbs Industries owns 30 miles from Glennallen.

**NOW, THEREFORE, BE IT RESOLVED** that the Chickaloon Community Council recommends that the intertie **not be built** within our planning area.

ADOPTED by the Chickaloon Community Council, this 13th day of April 1993.

-ATTEST:

Debra J. [Signature]  
Secretary

President

[Signature] S. Kelley



SUTTON COMMUNITY COUNCIL  
P.O. BOX 344  
SUTTON, AK 99674

RESOLUTION 93-001

A RESOLUTION OF THE SUTTON COMMUNITY COUNCIL CONCERNING THE  
PROPOSED COPPER VALLEY INTERTIE FROM SUTTON TO GLENNALLEN

WHEREAS, residents of Sutton and other communities strongly oppose the construction of an intertie to provide additional electric power to Copper Valley Electric Association consumers without appropriate study of feasibility, environmental risks, and alternate sources to provide that same power; and

WHEREAS, the request by CVEA to the Alaska Energy Authority to perform a feasibility study does not provide enough funds to do a thorough investigation of alternative power sources but only the study of the "Northeast Intertie" routing along the Glenn Highway corridor; and

WHEREAS, this project depends on appropriation of funds from the state of Alaska and thus decisions on the use of public money should be based on scientific data utilizing technologies appropriate for the present needs and future impacts of people and environment; and

WHEREAS, CVEA appears to be trying to circumvent the statutory/regulatory intent for a systematic process of selecting the best ways to meet the state's energy needs through reconnaissance study to feasibility study to finance plan to legislative action; and

WHEREAS, public comment received by this Community Council values the environmental habitat, personal health, and beauty of the land they have built their homes and businesses over the priority of constructing an intertie and resolve to oppose the project as long as it is being considered.

NOW, THEREFORE, BE IT RESOLVED that the Sutton Community Council opposes the Copper Valley Intertie.

Adopted by the Sutton Community Council on this 14<sup>th</sup> day  
of April, 1993.

Theresa K Anderson  
President

Attest:  
Whitney Tutthell

MATANUSKA-SUSITNA BOROUGH  
RESOLUTION SERIAL NO. 93-035

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH ASSEMBLY CONCERNING  
THE ALASKA ENERGY AUTHORITY COPPER VALLEY INTERTIE FEASIBILITY STUDY.

WHEREAS, the Matanuska-Susitna Borough Planning Commission adopted Planning Commission Resolution 93-10 (Sub) on April 5, 1993 concerning the Railbelt Intertie Feasibility Study; and

WHEREAS, the Planning Commission expressed therein concerns about the impact of the proposed Northeast Intertie on private property, habitable structures and scenic beauty of the Glenn Highway; and

WHEREAS, the communities of Glacier View, Chickaloon, and Sutton have held multiple public meetings, at which the residents have expressed their concerns; and

WHEREAS, the Matanuska-Susitna Borough Assembly adopted Resolution 89-113 (Sub) on September 5, 1989 concerning the Railbelt Intertie Feasibility Study, dated April 1989; and

WHEREAS, the Matanuska-Susitna Borough Assembly wishes to reiterate those concerns about the proposed intertie's impacts on health, tourism drawing potential, fish and wildlife habitat, and wetlands, including:

- the very popular recreation areas traversed, including sections of the historic Chickaloon-Knik-Nelchina Trail and other well-travelled trails;
- opening up the Matanuska Valley Moose Range with concomitant impacts on wildlife habitat;
- an area of outstanding natural beauty, where the local economy is dependent upon income from tourism; and

WHEREAS, some scientific studies have suggested significant health impacts from electro-magnetic fields to children living near transmission lines.

NOW, THEREFORE, BE IT RESOLVED that the Matanuska-Susitna Borough Assembly recommends that the Alaska Energy Authority shall also study the feasibility of generating electricity in the Copper Valley from other sources including:

- coal;

- natural gas reserves in the Copper Basin;
- natural gas from the proposed Yukon Pacific gas pipeline; and


BE IT FURTHER RESOLVED that the Matanuska-Susitna Borough Assembly recommends that the Alaska Energy Authority investigate the feasibility of upgrading the electrical transmission lines from Glennallen to Fairbanks to utilize energy produced by the Healy clean coal project and Chugach Electric Association; and

BE IT FURTHER RESOLVED that the Matanuska-Susitna Borough Assembly recommends that the Alaska Energy Authority perform the feasibility study with the following consideration:


Assessment of the EMF hazards at the O'Neil Substation in Sutton, and relocation of the substation if necessary to mitigate EMF health hazards, so any transmission line connected to the substation would not pose a health problem; and

BE IT FURTHER RESOLVED that if all other alternatives are explored and found not be feasible, that the Matanuska-Susitna Borough Assembly recommends that the design and location of the intertie be done in such a way as to mitigate these concerns.

ADOPTED by the Matanuska-Susitna Borough Assembly, this 13 day of April, 1993.

  
ERNEST W. BRANNON, Borough Mayor

ATTEST:

  
LINDA A DAHL, Borough Clerk

(SEAL)

MATANUSKA-SUSITNA BOROUGH  
PLANNING COMMISSION RESOLUTION 93-10 (Substitute)

A RESOLUTION OF THE MATANUSKA-SUSITNA BOROUGH PLANNING COMMISSION  
CONCERNING THE ALASKA ENERGY AUTHORITY COPPER VALLEY INTERTIE  
FEASIBILITY STUDY

WHEREAS, the Matanuska-Susitna Borough Assembly adopted Resolution 89-113 (Sub) on September 5, 1989 concerning the Railbelt Intertie Feasibility Study, Draft Final Report, dated April 1989; and

WHEREAS, the Assembly expressed therein concerns about the impact of the proposed Northeast Intertie on private property, habitable structures and scenic beauty of the Glenn Highway; and

WHEREAS, the Matanuska-Susitna Borough Planning Commission wishes to reiterate those concerns about the proposed intertie's impacts on health, tourism drawing potential, fish and wildlife habitat, and wetlands, including:

- the very popular recreation areas traversed, including sections of the historic Chickaloon-Knik-Nelchina Trail and other well-travelled trails;
- opening up the Matanuska Valley Moose Range with concomitant impacts on wildlife habitat;
- an area of outstanding natural beauty, where the local economy is dependent upon income from tourism; and

WHEREAS, some scientific studies have suggested a high incidence of leukemia in children who live near powerlines.

NOW, THEREFORE, BE IT RESOLVED that the Matanuska-Susitna Borough Planning Commission recommends that the design and location of the intertie be done in such a way as to mitigate these concerns; and

BE IT FURTHER RESOLVED that the Matanuska-Susitna Borough Planning Commission recommends that the Alaska Energy Authority shall also study the feasibility of generating electricity in the Copper Valley from the following sources:


- coal;
- natural gas reserves in the Copper Basin;
- natural gas from the proposed Yukon Pacific gas pipeline; and

BE IT FURTHER RESOLVED that the Matanuska-Susitna Borough Planning Commission recommends that the Alaska Energy Authority investigate the feasibility of upgrading the electrical transmission lines from Glennallen to Fairbanks to utilize energy produced by the Healy clean coal project and Chugach Electric Association; and

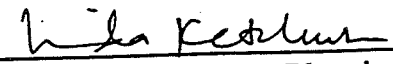
BE IT FURTHER RESOLVED that the Matanuska-Susitna Borough Planning Commission recommends that the Alaska Energy Authority perform the feasibility study with the following consideration:

Assessment of the EMF hazards at the O'Neil Substation in Sutton, and relocation of the substation if necessary to mitigate EMF health hazards, so any transmission line connected to the substation would not pose a health problem; and

ADOPTED by the Matanuska-Susitna Borough Planning Commission, this 5<sup>th</sup> day of April, 1993.

  
\_\_\_\_\_  
CARL DEPREEST, Chairman

ATTEST:

  
\_\_\_\_\_  
LINDA KETCHUM, Planning Clerk

# COPPER RIVER SCHOOL DISTRICT

## RESOLUTION NO. 93-06

### Support of the Sutton to Glennallen Intertie and the Alaska Energy Authority Reorganization Plan

WHEREAS, the Copper River School District is located within the Copper River Basin, and is a member/owner of Copper Valley Electric Association, Inc., and all but two district schools receive central station service from Copper Valley Electric Association, Inc., and

WHEREAS, Copper Valley Electric Association's members pay among the highest unsubsidized electrical rates in the State of Alaska; and

WHEREAS, Copper Valley Electric Association has pursued many alternatives to facilitate rate stability and possibly rate reduction for its member/owners, and as a result of an economical reassessment of various proposals, it was determined to be in the best interest of the members that Copper Valley Electric pursue the funding for the design and construction of the Sutton to Glennallen intertie; and

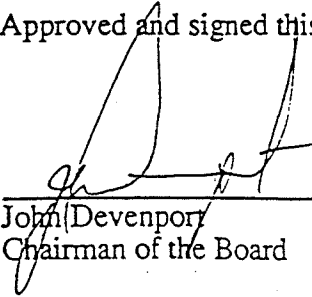
WHEREAS, the Sutton to Glennallen intertie will benefit the people of the Copper River basin and the Copper River School District, through future rate stabilization and possibly a rate reduction, it would reduce or possibly eliminate the need for fossil fuel generation and the exhaust emissions, and would support the economical development of our area; and

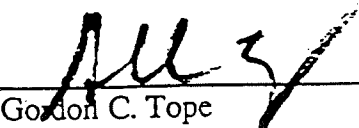
WHEREAS, the Alaska Energy Authority has developed a reorganization plan and would utilize the funds available in the Railbelt Energy Fund, the Railbelt Intertie Reserve Fund, and Bradley Lake Construction fund, and a \$20 million appropriation from the state to develop a Revolving Fund that would be used for strengthening the electrical intertie grid, including partial funding for constructing the Sutton to Glennallen intertie, supporting the Power Equalization Program for the next 20 years, and facilitate conservation efforts; and

WHEREAS, the Alaska Energy Authority reorganization plan acknowledges the Sutton to Glennallen intertie as a viable project for the benefit of Alaskans residing within the Copper Valley Electric Association service territories; now

THEREFORE, BE IT RESOLVED the Copper River School District Board of Education supports Copper Valley Electric Association's efforts and respectfully requests the 18th Legislature support the Alaska Energy Authority Reorganization Plan and/or an appropriation for the funding of the design and construction of the Sutton to Glennallen intertie.

Approved and signed this 8 day of February, 1993 in Glennallen, Alaska.

  
\_\_\_\_\_  
John Devenport  
Chairman of the Board

  
\_\_\_\_\_  
Gordon C. Tope  
Superintendent

**COPPER VALLEY INTERTIE FEASIBILITY STUDY**

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**Appendix O**

**ELECTRIC SYSTEM ANALYSIS BY  
POWER TECHNOLOGIES, INC.**

## **ELECTRICAL ANALYSIS OF THE COPPER VALLEY TRANSMISSION INTERTIE**

### **INTRODUCTION**

This report presents the results of the electrical analysis of the proposed Copper Valley Transmission Intertie. This analysis is part of the Phase I effort outlined in the Alaska Energy Authority's (AEA) RFP. This analysis was performed and documented by Power Technologies, Inc. (PTI) as sub-consultant to R. W. Beck and Associates.

As proposed, the intertie would consist of a transmission line from the Pump Station 11 Substation near Glennallen on the Copper Valley Electric Association (CVEA) system to the O'Neill Substation near Sutton on the Matanuska Electric Association (MEA) system (Glennallen-Sutton Intertie). The proposed intertie would be the first interconnection from the small, isolated CVEA system (which extends from Glennallen to Valdez) to the much larger, multi-utility Alaska Railbelt system.

The major portion of the proposed Glennallen-Sutton Intertie would be a 138 kV transmission line approximately 134 miles in length. This line would operate at the same nominal voltage as the existing CVEA transmission facilities. A 138/115 kV transformer would also be required at O'Neill to allow interconnection to the MEA transmission system operating at a nominal voltage of 115 kV. For this study, the intertie transformer was assumed to be a 12/16/20 MVA unit. In addition, reactive compensation and switching facilities would be required as part of the interconnection.

The analysis performed on the proposed Glennallen-Sutton Intertie and summarized in this report consists of steady-state power flow, fundamental voltage switching response, and transient stability simulations. This analysis provides a preliminary indication as to the feasibility of the proposed interconnection between CVEA and the Alaska Railbelt system. The analysis considered both pre and post-interconnection characteristics and limitations of the CVEA and Railbelt systems. The pre and post-interconnection analysis allows the impact of the intertie (positive & negative) on both the CVEA and Railbelt systems to be assessed.

The results of this analysis are presented in two sections. The first section of this report presents the results of the steady-state power flow and fundamental voltage switching simulations. This includes a description of the power flow data and system conditions evaluated. The second section of this report presents the results of the dynamics simulations. This section also describes the dynamics modeling and conditions considered in the dynamics simulations.



## SUMMARY

Switching study simulations show that with the proper reactive compensation, energization of the intertie is feasible from either the Railbelt or the CVEA system. This applies for peak and system low load conditions on both systems and for different generation dispatches on the CVEA system. Switching voltage performance is better when the intertie is energized from the Railbelt system due to its size. The Railbelt system is the preferred source for line energization given no other operating constraints. Moreover, energization of the intertie from the CVEA system would serve no purpose other than to allow service to a small amount of MEA load in the event of a prolonged service interruption to MEA.

A 10 Mvar line-connected, shunt reactor at the Glennallen end of the intertie is required to provide acceptable line energization and steady-state voltage performance. Based on system voltage profiles for Winter Peak load conditions with up to a 10 MW power transfers into CVEA (the maximum studied), the line-connected, shunt reactor at the Glennallen end of the intertie does not have to be switched.

The results of the steady-state power flow analysis show that the interconnection of the CVEA and Railbelt systems by the proposed 138 kV line is technically feasible. The Glennallen-Sutton Intertie provides acceptable steady-state performance under the various load level, power transfer and generation dispatches analyzed.

The Glennallen-Sutton Intertie does not degrade the performance of the MEA system in terms of voltage (low or high) during line outages or open breaker conditions. The MEA system without the intertie performs approximately the same as the system with the intertie when transferring 10 MW to the CVEA system. For the lower transfer conditions, the voltage performance of the MEA system is better with the intertie than it is without the intertie.

The Glennallen-Sutton Intertie will only marginally affect potential line overloading situations on the MEA 115 kV system. Other factors within the Railbelt system can far more significantly influence overloads on the MEA 115 kV system than the proposed intertie.

The interconnected CVEA-Railbelt system exhibits stable dynamic response for non-islanding disturbances in either system. The CVEA system is stable for such disturbances under Winter Peak load conditions and operating with a broad range of generation dispatch and import conditions. Disturbances in the CVEA system do not significantly effect the MEA system to which the CVEA system would be interconnected.

The Railbelt system is subject to instability across the Northern Intertie for loss of the Pt. Mackenzie-Teeland 230 kV line with moderately large transfers (i.e., about 40 MW) to the north. The Glennallen-Sutton Intertie does not significantly effect the Northern Intertie transfer stability limit. With the intertie, a 10 MW transfer to CVEA will decrease the Northern Intertie transfer stability limit by about 2 MW.

However, without any power transfer to CVEA, the intertie increases the Northern Intertie transfer stability limit by about 2 MW. The net stability impact from the Glennallen-Sutton Intertie is insignificant considering that the Northern Intertie often operated far above its transfer stability limit.

The reliability of the CVEA system will be impacted by the proposed intertie, and may be more prone to total or partial black outs as a result of interconnected operation. This reliability impact is the natural consequence of changing internal generation dispatch and relying heavily on the intertie. However, the intertie will make the CVEA system immune from loss of load due to loss of internal generating units. Thus, the intertie will both improve and degrade the reliability of the CVEA system based on the perspective from which the reliability is considered.

With the Glennallen-Sutton Intertie, the CVEA system will become subject to disturbances affecting the Railbelt system. The most significant of these may be underfrequency situations which occur on the Railbelt following large generation losses. The Railbelt utilities collectively shed load in response to underfrequency conditions on the interconnected Railbelt system. As a consequence of operating as part of this interconnected system, CVEA may also be required to participate in the Railbelt underfrequency load shedding program.

Further analysis and development of an underfrequency load shedding scheme in the CVEA system is warranted. This analysis will be required to identify CVEA load shedding needed in response to interconnected CVEA-Railbelt underfrequency conditions. It is also necessary to develop a load shedding strategy which will allow the CVEA system to maintain service to critical loads for the broad range of generation dispatches and import conditions which will be possible with the intertie.

The configuration of the 115 kV switching facilities which are required at the Sutton end of the proposed intertie will effect the exposure of the CVEA system to potential islanding disturbances originating in the Railbelt system. Switching Configuration B (discussed below) which is based on placing the 115 kV circuit breaker facilities at MEA's O'Neill Tap Substation is the most effective at reducing CVEA's exposure to islanding. This switching configuration maximizes the benefit of the two-way feed capability offered by the existing MEA 115 kV system. This switching configuration also provides the most benefit to the MEA system in that it reduces the exposure of MEA's loads to interruption due to any single disturbance event on the MEA system.

## FUTURE CONSIDERATIONS

The initial purpose for the Glennallen-Sutton Intertie is to interconnect the CVEA and Railbelt systems. This allows CVEA to benefit from surplus, less-costly Railbelt energy resources and the reliability benefits of being part of a larger interconnected system. In this initial role, the intertie requirements are relatively limited (power transfer requirements in the 10-20 MW range), and the design requirements for the interconnection facilities are fairly small. However, there are potential future requirements which may influence the design of the initial intertie facilities.

Previous long-range plans for the Railbelt system have proposed and considered a second interconnection between the Anchorage and Fairbanks areas (Sutton-Glennallen-Delta Junction). The Glennallen-Sutton Intertie would form one segment of this proposed transmission interconnection facility. The proposed Anchorage-Fairbanks interconnection would support higher power transfers from Anchorage to Fairbanks. It would also improve overall Railbelt system reliability by providing a back-up to the existing Northern Intertie.

The existing Northern Intertie has steady-state transfer limits of about 70 MW, but dynamic transfer limits are substantially lower. The second intertie would increase both the steady-state and dynamic transfer limits of the Anchorage-Fairbanks interconnection. Steady-state and dynamic transfer limits of 100-120 MW might be possible with the second intertie. Thus, the Glennallen-Sutton line section, as part of such an intertie, could potentially experience loadings in the 100-120 MW range under single contingency conditions. Such loading levels are well above the initial 10-20 MW loading expectations for this line. This would significantly impact conductor sizing, sag limits, voltage drop and losses on this facility.

In the Glennallen-Sutton Intertie's initial role, deviation in power transfer levels are small. Thus, the line-connected reactor proposed as part of this intertie does not need to be switched for voltage control purposes. However, as power transfer requirements for the Glennallen-Sutton Intertie increase, switching of the proposed line-connected reactor will likely become necessary. Thus, the initial design and layout of the line-connected reactor should consider and provide for the easy addition of a switching device in the future.

The MEA 115 kV system forms one leg of a transmission triangle between Pt. Mackenzie, Teeland and Anchorage. This 115 kV system serves about 85 MW of load. The Pt. Mackenzie-Teeland and Pt. Mackenzie-Anchorage legs of the triangle are 230 kV facilities. Connected radially from Pt. Mackenzie is the Railbelt's largest and least costly generation resource (Beluga). Connected to Anchorage is the largest concentration of load in the Railbelt system. Teeland is the interconnection point to the Fairbanks area, and significant power transfers can occur through this point.

Under normal conditions, the entire Beluga plant output can be delivered to the Anchorage loads and to the Teeland interconnection point via the 230 kV facilities. Further, the MEA 115 kV does not experience significant through-flow under normal

conditions. Under normal conditions, the power flows on the MEA 115 kV system are dictated primarily by the loads served from it.

However, for loss of either 230 kV connection out of Pt. Mackenzie, the MEA 115 kV system is subject to excessive through-flow, and generation at Beluga may have to be curtailed. This can elevate flows on the 115 kV system to excessive levels and can result in overloading on these facilities. Additional demands placed on the MEA system by the Glennallen-Sutton Intertie (either for deliveries to CVEA or transfer associated with the future interconnection to Fairbanks) will further worsen the potential impacts on the MEA 115 kV system. Thus at some point, the combination of the Glennallen-Sutton Intertie and the other impacts will necessitate reinforcement of the MEA system.

This reinforcement to the MEA system would likely be in the form of a 230 kV transmission connection between Teeland and Anchorage. The interface point to bolster the MEA 115 kV system and to support the demands of the Glennallen-Sutton Intertie would likely be at the existing O'Neill Tap 115 kV Substation. A possible configuration for this interface point could be composed of the following

- A 230/138 kV transformation at the O'Neill Tap
- A 138/115 kV transformation at the O'Neill Tap
- Conversion of the O'Neill Tap-O'Neill 115 kV line to 138 kV

Relative to the initial facilities provided as part of the Glennallen-Sutton Intertie, this future reinforcement option has the following facility design implications. These implications are discussed in the following paragraphs.

A transmission connection to the MEA system of the nature indicated will require 115 kV circuit breaker facilities. Such facilities are proposed as part of the Glennallen-Sutton Intertie, and they could be installed at either the O'Neill Tap or the O'Neill Substation (see breaker configuration discussed in report). The O'Neill Tap is the preferred location for these circuit breaker facilities based on the analysis performed in this report for the initial intertie facilities. This future interface requirement further supports the feasibility of this breaker configuration as it would readily provide for termination of the suggested 138/115 kV transformer at the O'Neill Tap.

Conversion of the O'Neill Tap to O'Neill 115 kV line to 138 kV will, among other things, require 138 kV termination facilities to be installed at O'Neill. Such termination facilities would only need to consist of line dead-end structures, bus work & supports and disconnect switches. Substation facilities are presently proposed for installation at O'Neill to interface the 138 kV intertie to the existing MEA 115 kV facilities. A portion of these facilities are presently designed for 115 kV operation. However, such equipment could be designed and rated for 138 kV operation and operated at 115 kV in the initial period. They would then be compatible with the future upgrade of the subject line without alteration or further investment. This option further suggests that 115 kV circuit breaker facilities should not be installed

at O'Neill, but rather should be installed at the O'Neill Tap as suggested above and supported by the analysis performed as part of this study.

A 138/115 kV transformer will be required at O'Neill to interconnect the intertie with the MEA 115 kV facilities. This transformer is proposed as a 12/16/20 MVA, OA/FA/FA unit. With future conversion of the O'Neill Tap to O'Neill line to 138 kV as hypothesized above, this transformer would no longer be required. However, a 138/115 kV transformer would be required at the O'Neill Tap as part of the interface of the 230 kV, 138 kV and 115 kV facilities. To be of significant benefit for bolstering the MEA 115 kV system, this 138/115 kV transformer would need to have a peak capacity of about 100 MVA. This capacity could be provided in the form of a single, large transformer or two 'half-size' transformers operated in parallel. A 'half-size' transformer could thus have a rating of 30/40/50 MVA, OA/FA/FA and meet the requirements.

A transformer of this size could be purchased (without the forced air cooling equipment) for the initial interconnection and utilized at the O'Neill Substation. It could later be relocated to the O'Neill Tap, and the cooling equipment could then be installed. A second 'half-size' unit could then be purchased and operated in parallel. Although this would slightly increase the transformation cost for the initial intertie, it would provide a transformer of sufficient size which is useable in the network. The larger transformer would, however, have an immediate benefit in that it would have lower losses than the proposed 12/16/20 MVA unit and would thus result in some operating savings.

The factors related to the future use and requirements of the Glennallen-Sutton Intertie should be considered and addressed in the evaluation and design of the proposed intertie. This does, however, create a dilemma which is difficult to resolve. This dilemma is in effect a 'double-edge sword'. Incorporation of future use requirements into the initial design of the Glennallen-Sutton Intertie will escalate the initial cost of the facility. Without reasonable expectation that such future use requirements will ever arise, the additional expenditure in the intertie may be unwarranted and may compromise the economic viability of the initial facility. However, failure to adequately consider and incorporate future requirements in the initial design may render the facility unusable as part of the future interconnection without significant additional expenditure (i.e., for conductor replacement, increased sag clearances, etc.). This could then compromise the economic viability and feasibility of the long-range transmission interconnection plan.

The Glennallen-Sutton Intertie, although proposed by CVEA solely for its benefit, has potential long-range uses which may be of benefit and interest to other Railbelt utilities. Construction of the Glennallen-Sutton 138 kV line by CVEA may increase the feasibility of another utility constructing the Glennallen-Delta Junction 138 kV line. However, the feasibility of constructing the Glennallen-Delta Junction line may hinge on the capabilities designed into the Glennallen-Sutton Intertie.

Consultation with adjacent utilities would be prudent to explore and identify common

needs and interests in the Glennallen-Sutton and Glennallen-Delta Junction transmission interconnections. Such discussions could identify cost sharing options by other utilities for incremental enhancements (e.g., larger conductor, larger transformer, etc.) in the Glennallen-Sutton Intertie. These incremental improvements by others could marginally improve the CVEA's economic feasibility for the Glennallen-Sutton Intertie (due to lower losses). Further, it could have long-range benefits to CVEA by increasing the likelihood that the Glennallen-Delta Junction line would be constructed. This would provide a two-way transmission connection from the Railbelt to the CVEA system and would enhance the reliability of CVEA's interconnection. It would also provide transaction capabilities with additional Railbelt utilities.

## POWER FLOW & SWITCHING ANALYSIS

### Data Base & Simulation Conditions

The power flow data base developed for the CVEA system was based on a preliminary model established by AEA. This model was updated and modified to represent the CVEA system configuration and conditions as appropriate for this study. The updated model utilized the best available information as provided by CVEA, and reasonable assumptions were made where actual data was not available.

The CVEA data base represents the entire CVEA system down to the first major distribution bus (i.e., 12.5 kV or 4.16 kV) at the significant load points in the system. It also represents the existing, fixed generating units. The model represents only the positive sequence network. The CVEA system data base includes the proposed 138 kV transmission line and 138/115 kV transformer at the Sutton interconnection point with the MEA system.

Prior to commencing this study, a detailed data base of the Railbelt system had been developed and maintained PTI in conjunction with other studies performed for AEA. The existing Railbelt data base was used with only minor modification for this study, and the CVEA data base was appended to the Railbelt data base to form an integrated power flow model data base.

The power flow data base for the interconnected CVEA-Railbelt system is in PTI's Power System Simulator for Engineers (PSS/E) data format. The listing of the data for the CVEA portion of the data base is presented in Appendix A. Data for the Railbelt portion of the data base was not included due to its size and since this data has been reported in other studies performed for AEA.

For this study, the interconnected system was analyzed under two loading conditions. The two conditions are as shown in the following table.

Loading Condition	Railbelt System Load (MW)	CVEA System Load (MW)
Winter Peak	580	12.2
System Low	254	6.5

The Winter Peak load condition is indicative of the maximum loading conditions on the two systems. It was selected in order to analyze the system under its most stressed state where low voltage, line overloading, and stability problems would most likely occur.

The System Low load condition is indicative of a minimum loading condition (such as would occur in the spring or fall) on the two systems. The System Low conditions were selected to analyze system steady-state performance when high voltage would

most likely be a problem. This loading condition was also selected to assess the reactive compensation requirements for the 134 mile long, 138 kV transmission line.

For the Winter Peak load condition, several dispatches were considered for the CVEA system. These generation dispatches are summarized in Appendix B. These dispatches were established to represent the day to night generation shift presently used as well as a predominantly hydro generation scenario which might likely occur with the intertie in service. Also, generation dispatches were selected for the interconnected conditions to represent moderate and large imports into the CVEA system.

For the System Low loading condition, two generation dispatches were analyzed for the CVEA system. Both dispatches represented a zero transfer between the Railbelt and CVEA system and attempted to maximize the voltages which could exist on the interconnected system. One dispatch was a predominantly hydro dispatch and was utilized only for switching studies. These generation dispatches are also summarized in Appendix B.

For the Railbelt system, generation dispatches utilized for the Winter Peak and System Low loading conditions are indicative of that presently used in the Railbelt system. This dispatch includes the Bradley Lake hydro generation in both load conditions. This dispatch also assumes only modest levels of power transfer from the Anchorage area to the Fairbanks area. Except for a few cases specifically established to evaluate the Anchorage to Fairbanks transfer stability limit, the Anchorage to Fairbanks transfer is as shown in the following table.

**Anchorage To Fairbanks  
Power Transfer**

Loading Condition	Transfer
Winter Peak	20.0 MW
System Low	15.5 MW

For the Winter Peak load condition, the transfer is approximately equal to GVEA's (Golden Valley) firm power allocation from Bradley Lake based on Bradley operating at the 120 MW output level. For the System Low load condition, the transfer is composed of GVEA's Bradley Lake allocation (for 50 MW Bradley output) plus economy energy necessary to supplement the base-load, coal fired generation in the Fairbanks area.

### **Discussion of Switching Simulations**

Switching simulations were performed first to determine the requirements for reactive compensation on the Glennallen-Sutton 138 kV line. These simulations evaluated reactive compensation levels based on both energization 'transient' and post-energization, steady-state conditions. These simulations considered energization of the intertie from each end under both Winter Peak and System Low load



conditions. Several reactive compensation levels and reactor locations were analyzed. Intertie energization from the CVEA system also considered different generation dispatches for the two load conditions. However, only the 'no compensation' simulations and simulations for the final reactive compensation option have been summarized in this report. These are noted below, and the results are shown in Appendix C.

### INTERTIE ENERGIZATION LOAD/DISPATCH CONDITIONS REPORTED

#### From Railbelt System

- Winter Peak Load - with & without reactor
- System Low Load - with & without reactor

#### From CVEA System

- Winter Peak Day Dispatch - with & without reactor
- Winter Peak Hydro Dispatch - with & without reactor
- System Low Mixed Dispatch - with & without reactor
- System Low Hydro Dispatch - with & without reactor

Each case is illustrated by three power flow one-line diagrams. The first one-line represents the condition just prior to energization ( $t=0^-$ ). The second one-line represents the system condition just after energization, but before flux levels in the generators have changed ( $t=0^+$ ). The last one-line represents the system condition after energization and after generator voltage regulator action has occurred and the system has reached a new steady-state operating condition.

Analysis of these switching cases indicates that energization of the Glennallen-Sutton Intertie from either end is not a problem if a 10 Mvar line-connected shunt reactor is installed at Glennallen. Voltages are lower if the line is energized from the Railbelt system. This is because the Railbelt is electrically 'stiffer' than the CVEA system.

#### **Discussion of Steady-State Power Flow Simulations**

A number of post-contingency power flow simulations were performed to determine the effect of the intertie on the MEA system. These simulations analyzed the MEA system voltage and line loading levels with and without the intertie in service. The analysis consisted of developing the base case in which the system is initially operating in a normal condition and then subjecting it to a single contingency. The contingencies simulated represented line outage and open-ended line conditions such as would occur for an open breaker.

The results are shown in one-line power flow diagram form in the appendices and grouped by system load, intertie condition and transfer level as noted below.

Appendix D: Winter Peak, no intertie

Appendix E:	Winter Peak, intertie with 0 MW transfer
Appendix F:	Winter Peak, 5 MW transfer to CVEA
Appendix G:	Winter Peak, 10 MW transfer to CVEA
Appendix H:	System Low, no intertie
Appendix I:	System Low, intertie with 0 MW transfer

All the simulations utilized the same basic Railbelt generation dispatch for each load level. For transfers to the CVEA system, the additional generation in the Railbelt system was supplied from the Beluga plant. For all cases, the 10 Mvar line-connected shunt reactor, identified from the switching studies and discussed above, was in service at the Glennallen end of the 138 kV intertie.

For the Winter Peak conditions, the contingencies that were studied consisted of the following:

- 1) Loss of the 230 kV line between Point Mackenzie and Teeland
- 2) The 115 kV breaker open at AMLP Plant 2
- 3) The 115 kV north breaker open at Eklutna
- 4) The 115 kV breaker open at Teeland
- 5) Loss of the 115 kV line between AMLP Plant 2 and Eklutna
- 6) Loss of the 115 kV line between Teeland and O'neill Tap
- 7) Loss of the 115 kV line between Eklutna and O'neill Tap

Of the above contingencies, three of these resulted in the most significant drop in voltages on the MEA system:

- Loss of the Pt. Mackenzie-Teeland 230 kV line
- The 115 kV breaker open at AMLP Plant 2
- The 115 kV breaker open at Teeland

The largest voltage drop for each of these three contingencies is given in the table below. For the MEA system, the worst contingency is the opening of the Teeland 115 kV breaker which leaves all of the MEA load fed radially from the AMLP Plant 2. This is the only contingency which resulted in voltages exceeding the Railbelt criteria level. However, this contingency resulted in criteria being exceeded even without the intertie. The Railbelt criteria require that post-contingency steady-state voltages must settle within 5% of their pre-contingency value.

As indicated in the table below, the intertie does not adversely affect voltages on the MEA system. The voltage profile of the MEA system without the intertie and with the intertie, but transferring 10 MW, is approximately the same. With intertie transfers of 5 MW or less, the voltage drop was less than in the cases without the intertie. Thus, the line capacitance of the intertie can have a benefit to the MEA system from a voltage support perspective.

Contingency	Largest Voltage Drop on MEA 115 kV System (pu)			
	No Tie	Tie - 0 MW Transfer	Tie - 5 MW Transfer	Tie - 10 MW Transfer
Pt. Mackenzie-Teeland	0.042	0.038	0.043	0.045
Plant 2 breaker open	0.041	0.034	0.036	0.041
Teeland breaker open	0.062	0.047	0.052	0.061

The results of the power flow simulations do not show line loadings on the MEA system to be a problem for the conditions studied. The largest line loading occurred on the AMLP Plant 2 to Briggs Tap 115 kV line. This occurred for the outage of the Pt. Mackenzie-Teeland 230 kV line. With the intertie in service and transferring 10 MW to CVEA, this 115 kV line loading was 100 MVA. Without the intertie, this loading was only 89 MVA. Both loadings are within the 120 MVA thermal conductor rating assumed for this line.

Based on the configuration of the Railbelt and MEA systems, loadings on the MEA 115 kV system for outage of the Pt. Mackenzie-Teeland 230 kV line can be extreme. Cases could have been developed (without the Glennallen-Sutton Intertie) which would have resulted in excessive overloads on the MEA 115 kV system. Such cases with the intertie and transferring power to CVEA would have shown larger overloads (this would be the same effect as higher MEA loads). However, loadings on the MEA 115 kV system are more significantly impacted by power transfers from Anchorage to Fairbanks and the level of generation at the Eklutna Hydro plant. Thus, although the Glennallen-Sutton Intertie will have an impact on MEA 115 kV line loadings, the impact from this intertie is very small compared to other factors which can influence the loading on the MEA system.

For the Railbelt System Low load condition, the following contingencies were also analyzed. These contingencies were considered to identify any high voltage problems on the MEA 115 kV system which might be created by the Glennallen-Sutton intertie.

- 1) The 115 kV breaker open at Teeland
- 2) The 115 kV breaker open at AMLP Plant 2
- 3) The 115 kV north breaker open at Eklutna

These diagrams show that high voltages are not a problem with or without the intertie. With the Glennallen-Sutton intertie in service but transferring no power, the voltages on the MEA 115 kV system are at most 1% higher than they are without the intertie. This is an insignificant influence.

## DYNAMIC RESPONSE ANALYSIS

### Dynamics Models & System Configuration

The data base for supporting the dynamic simulations performed as part of this study is composed of time-domain response models of the generators, excitation systems and turbine-governors associated with each of the generating units on the CVEA system. The modelling of generating equipment on the CVEA system was based on data received from AEA and CVEA. This data consisted primarily of generator rating, impedances and time constants obtained from manufacturer's data. In cases where data was unavailable (such as for some of the generator parameters and nearly all of the exciters and governors), reasonable data estimates were made based on known information for similar types of generating units.

As with the power flow data base used in this study, PTI had developed an extensive dynamics model data base of the Railbelt system in conjunction with other studies performed for AEA. The CVEA dynamics model data was combined with the dynamic data for the Railbelt system to form the integrated dynamics model data base for this study. This dynamics data is in PTI's PSS/E dynamics data format. A listing of the dynamics models and associated data for all the generating units on the CVEA system is presented in Appendix AA.

After development of excitation and turbine-governor models for the CVEA generators, the data was validated through off-line tests prior to incorporation in the dynamics data base. These tests demonstrate the reasonableness of the model parameters used to represent such equipment. The results from the excitation system response tests are given in Appendix BB. The results from the turbine-governor response tests are given in Appendix CC.

These tests indicate that the models are stable in the off-line mode. Models which exhibit stable response in the off-line mode will provide stable response when part of an interconnected system. It should be noted, however, that these tests do not confirm or verify the accuracy with which these models represent the actual equipment. These tests merely establish that the models exhibit reasonable response characteristics. Much more data collection effort and field testing would be required to fully verify the accuracy and validity of the dynamic models developed for the CVEA generating equipment as part of this study.

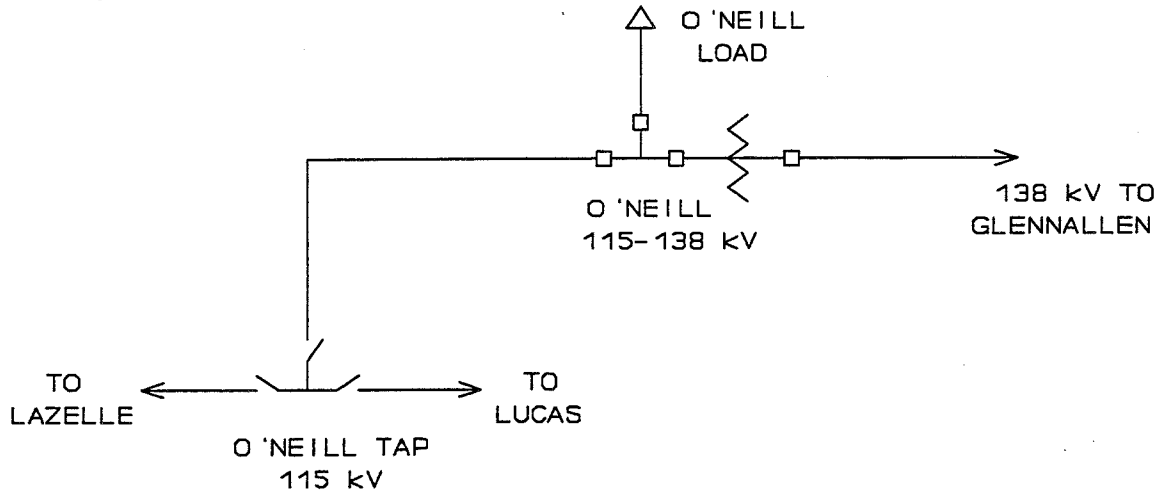
System stability problems generally occur when power transfers and system load levels are high, and when the potential for regional generation/load imbalances are the greatest. Therefore, the dynamic simulations performed for this study utilized only the Winter Peak load condition with the various generation dispatches noted in Appendix B.

The dynamics simulations also considered system configurations (i.e., circuit breaker location) associated with the Glennallen-Sutton Intertie which could

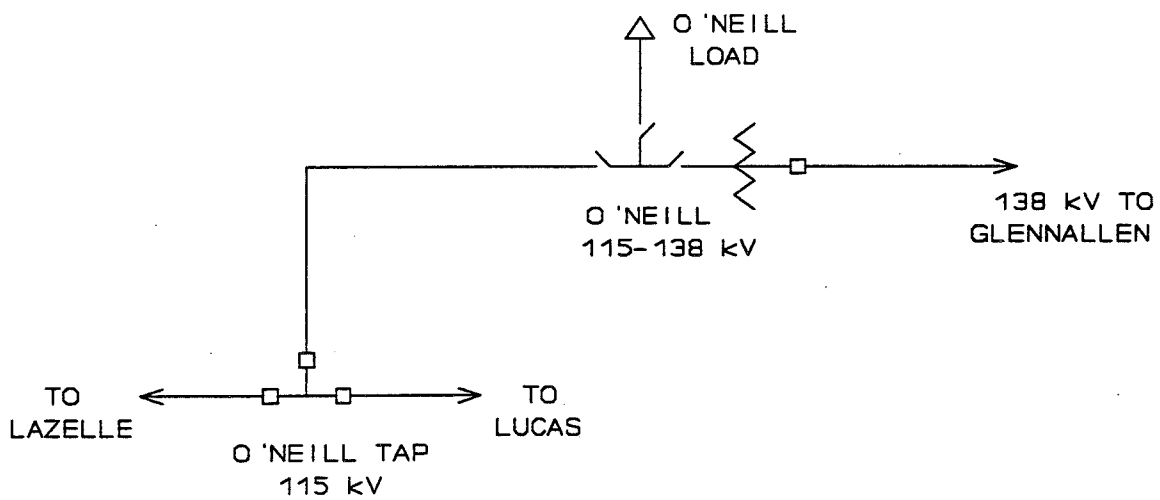
influence the dynamic response of the interconnected system. Two breaker arrangements were assumed in the dynamics simulations performed in this study:

- Configuration A: 3-breaker 115 kV switching station at O'Neill (Sutton)
- Configuration B: 3-breaker 115 kV switching station at O'Neill Tap

These two configurations are illustrated below. These breaker configurations affect the system response for only some contingencies studied. Thus, where the breaker arrangement does affect the dynamic response, it is explicitly identified in the study discussion.



CONFIGURATION A



CONFIGURATION B

### Discussion of Intertie Effect on Railbelt Transfers

As noted in the power flow section of the report, the outage of the Pt. Mackenzie-Teeland 230 kV line can significantly impact the loading on the MEA 115 kV system. The degree of impact from this outage is related to the magnitude of the power transfers from Anchorage to Fairbanks. The 230 kV outage along with high power transfers from Anchorage to Fairbanks can effect the stability of the Anchorage-Fairbanks interconnection (Northern Intertie).

To determine what effect the Glennallen-Sutton Intertie has on the Northern Intertie stability limit, several dynamics simulations were run with and without the Glennallen-Sutton Intertie in service. These simulations considered a 4-cycle fault at Point Mackenzie with the subsequent trip of the Point Mackenzie-Teeland 230 kV line. These simulations also considered Anchorage to Fairbanks transfers which are above the present firm power transfer (i.e., GVEA's Bradley Lake allocation) requirements of the Northern Intertie. The plots from these simulations are shown in Appendix DD. The following table summarizes the results.

Northern Intertie Stability Limit for Pt. Mackenzie-Teeland 230 kV Outages Under Anchorage to Fairbanks Power Transfer Conditions	
System Condition	Transient Stability Transfer Limit
No Glennallen-Sutton Intertie	42 MW
Glennallen-Sutton Intertie with 0 MW transfer to CVEA	44 MW
Glennallen-Sutton Intertie with 5 MW transfer to CVEA	43 MW
Glennallen-Sutton Intertie with 10 MW transfer to CVEA	40 MW

The intertie with a 10 MW transfer to CVEA decreases the stability margin for Anchorage to Fairbanks transfers by 2 MW. However, the intertie with lesser transfers to CVEA slightly increases the stability margin. Therefore the effect from the Glennallen-Sutton Intertie on the Northern Intertie transfer stability margin is negligible. Further, the steady-state transfer levels from Anchorage to Fairbanks can be as large as 70 MW. Under such conditions, the Northern Intertie is grossly above its stability margin. The Railbelt would be subject to instability following the loss of the Pt. Mackenzie-Teeland 230 kV line regardless of the Glennallen-Sutton Intertie. Thus, the 2 MW decrease in the Anchorage-Fairbanks transfer stability margin does not appear to be an overly critical factor.

### **Discussion of Effect of Intertie on MEA**

Of all the Railbelt utilities, the intertie could have the greatest effect on the MEA system. To study this effect, the system must be analyzed from two viewpoints:

- effect of Railbelt faults on MEA system, with and without the intertie
- effect of CVEA faults on the MEA system.

The following five disturbances were simulated to assess the effect of Railbelt faults on the MEA system. These disturbances were analyzed for Northern Intertie transfers equal to the present firm requirements (about 20 MW).

- 1) 4-cycle fault at Pt. Mackenzie, loss of Pt. Mackenzie-Teeland 230 kV line
- 2) 4-cycle fault at Eklutna, loss of Eklutna-Plant 2 115 kV line
- 3) 4-cycle fault at Eklutna, loss of Eklutna-Teeland 115 kV line
- 4) 4-cycle fault at O'Neill Tap, loss of O'Neill Tap-Teeland 115 kV line
- 5) 4-cycle fault at O'Neill Tap, loss of O'Neill Tap-Eklutna 115 kV line

Disturbance item 3 above assumes breaker Configuration A noted earlier. Disturbance items 4 and 5 above assume breaker Configuration B. The plots of these disturbance simulations are given in Appendix EE.

The response of the MEA system without the Glennallen-Sutton Intertie versus the response with the intertie carrying minimal flow is approximately the same. The angular swings across the Railbelt system and voltage excursions on the MEA 115 kV system are higher when the intertie is in service and carrying 10 MW. However, the effect of the Glennallen-Sutton Intertie on the MEA system for Railbelt disturbances is minimal.

Appendix FF contains plots showing the effects of CVEA system disturbances on the MEA system. This includes results for only the Winter Peak Day, 5 MW Import, and 10 MW Import CVEA generation dispatch conditions. The following disturbances in the CVEA system were examined:

- 1) 4-cycle fault at one Petro Star 25 kV bus
- 2) 4-cycle fault at Meals, trip Meals-PS12 138 kV line
- 3) 4-cycle fault at Glennallen 25 kV bus
- 4) 4-cycle fault at PS11, trip PS11-PS12 138 kV line
- 5) Loss of Solomon Gulch Unit 1
- 6) 4-cycle, 138 kV fault at O'Neill, loss of 138/115 kV transformer

The results of these simulations show that faults in the CVEA system have minimal effect on the MEA system. Of the above disturbances, the most significant disturbance affecting the MEA is the fault on the intertie facilities. However, this disturbance is no more significant than the disturbances originating on the MEA and Railbelt portions of the system.

### **Discussion of Effect of Intertie on CVEA**

The proposed Glennallen-Sutton Intertie can have both beneficial and detrimental effects on the CVEA system. It allows replacement of most, if not all, of the diesel generation normally used in the CVEA system with surplus hydro and natural gas powered generation in the Railbelt. This is an economic benefit driving the consideration of the Glennallen-Sutton Intertie.

However, from the reliability standpoint, the CVEA system becomes more at risk when it relies on the intertie since it is radially connected from MEA's 115 kV loop. Under moderate to heavy import, loss of the intertie would cause a blackout or significant loss of load on the CVEA system. Further, faults on the CVEA 138 kV lines could island the southern portion of the CVEA system (i.e., Solomon Gulch and Valdez) and result in significant loss of load regardless of the Glennallen-Sutton Intertie. Moreover, the intertie can expose the CVEA system to disturbances (e.g., Railbelt underfrequency, MEA system faults, etc.) to which it was previously immune.

To test the impact of the intertie on the CVEA system, the following CVEA system disturbances (as applicable for the specific dispatch scenario) were simulated on the isolated and interconnected CVEA system:

- 1) 4-cycle fault at one Petro Star 25 kV bus
- 2) 4-cycle fault at Meals, trip Meals-PS12 138 kV line
- 3) 4-cycle fault at Glennallen 25 kV bus
- 4) 4-cycle fault at PS11, trip PS11-PS12 138 kV line
- 5) Loss of Solomon Gulch Hydro Unit 1
- 6) Loss of Glennallen diesel Unit 6
- 7) Loss of largest Valdez diesel unit

The Winter Peak load condition was used, and the following generation dispatches were analyzed:

- Peak Day Dispatch
- Peak Night Dispatch
- Predominantly Hydro Dispatch

These generation dispatches are listed in Appendix B as noted earlier. It should be noted that the CVEA system does not presently operate with a predominantly hydro generation dispatch. However, with the Glennallen-Sutton Intertie a predominantly hydro dispatch will likely occur. Thus, this dispatch was analyzed for the isolated CVEA system for comparative purposes.

Appendix GG contains plots of the response of the isolated CVEA system to the disturbances noted above. The most severe disturbances for the isolated CVEA system are the fault and loss of the 138 kV lines connecting the northern and southern portions of the CVEA system.



Under the Winter Peak Day dispatch, the system can handle losses of the 138 kV lines, which island the two portions of the CVEA system, since fast-response generation (i.e., diesels) are dispersed in the system. The Valdez island connected to the Solomon Gulch units responds more slowly than the Glennallen island. This is due to the slow governor response and large inertia of the hydro units compared to the diesel units in the Glennallen island. The frequency of the Glennallen island returns to 60 Hz quickly due to the isochronous governor action of the diesels. Also, for the Winter Peak Day case, the system can handle the loss of any generating unit.

For the Winter Peak Night scenario, loss of either CVEA 138 kV line results in a significant load and generation imbalance in the Valdez island. This leads to collapse of this island due to the slow governor response from the Solomon Gulch hydro units. However, even under the Winter Peak Night generation dispatch, the isolated CVEA system can handle the loss of any generating unit.

The Winter Peak Predominantly Hydro case can only handle minor disturbances such as small load rejections (e.g., loss of one Petro Star 25 kV bus (serving 1.25 MW) or loss of Valdez Unit 4 (0.4 MW). The other disturbances studied caused severe frequency excursions on the CVEA system.

For the analysis of the interconnected CVEA system, the same three Winter Peak dispatch levels noted above were utilized. These dispatches assumed no import into the CVEA system. Two additional scenarios were also studied in which CVEA was importing 5 MW and 10 MW. These two additional dispatches are also listed in Appendix B. The plots from the CVEA interconnected cases are given in Appendix HH.

The results from these simulations show that the CVEA system is most reliable with the intertie in service, no power transfer on the intertie, and Winter Peak Day dispatch. As before, the Valdez area can survive outages on the CVEA 138 kV system. Further, the Glennallen portion of the CVEA system (i.e., the part that remains interconnected with the Railbelt) responds better, in terms of angular swings and voltage deviation, than when the system is isolated. The interconnected system responds better to non-islanding disturbances, such as loss of a unit, than when it is isolated. Loss of the intertie when there is no transfer is also not a problem for the CVEA system under this dispatch condition.

For the Winter Peak Night dispatch with the intertie in service, but with no import into the CVEA system, the CVEA system as a whole is stronger than when it was isolated. However, for loss of the CVEA 138 kV lines, the Valdez area of the system responds no better than without the intertie. However, the remainder of the CVEA system that stays connected to the intertie responds significantly better. The interconnected system responds better to non-islanding disturbances, such as loss of a unit, than when it is isolated. Loss of the intertie with no power transfer is not a problem.

Loss of the intertie does, however, become a problem when the CVEA system is importing power. For loss of the intertie, the entire CVEA system will 'go black'. Loss of any of the CVEA 138 kV lines will result in collapse of the Valdez area. Also, loss of the Glennallen-PS11 25 kV line will cause Glennallen to go black since there is no generation in that island for the 10 MW import case. However, for non-islanding disturbances, the CVEA system responds well under power import conditions with minimal internal generation.

The response of the CVEA system to a limited number of disturbances in the neighboring Railbelt system was also simulated. The disturbances evaluated are summarized as follows:

- 1) 4-cycle fault at Pt. Mackenzie, loss of Pt. Mackenzie-Teeland 230 kV line
- 2) 4-cycle fault at Eklutna, loss of Eklutna-Plant 2 115 kV line
- 3) 4-cycle fault at Eklutna, loss of Eklutna-Teeland 115 kV line
- 4) 4-cycle fault at O'Neill Tap, loss of O'Neill Tap-Teeland 115 kV line
- 5) 4-cycle fault at O'Neill Tap, loss of O'Neill Tap-Eklutna 115 kV line

These disturbances test the transient stability of the CVEA system when operating as part of the interconnected Railbelt system. These disturbances were run for all of the Winter Peak dispatches listed in Appendix B. The plots from the dynamic simulations of these disturbances are given in Appendix II.

The CVEA system can handle all of the non-islanding disturbances occurring in the Railbelt. The only significant Railbelt disturbance for CVEA is the loss of Eklutna-Teeland 115 kV. For this disturbance, breaker Configuration A noted above is assumed. In this case the intertie will be effectively opened, and the MEA load at O'Neill will remain with the CVEA system. If there are significant transfers into CVEA or moderate transfers with a predominantly hydro generation dispatch in the CVEA system, the CVEA system will collapse following this disturbance.

There are other Railbelt disturbances which globally affect the Railbelt (e.g., large generation loss). The impact of such disturbances on the CVEA system was not evaluated. Such disturbances would not threaten the transient stability of the CVEA system, but would expose it to the same underfrequency experienced in the Railbelt.

### **Discussion of Intertie Breaker Arrangement**

As noted and described previously, there are two breaker configurations which were considered in the dynamics simulations. These two configurations differ as to the placement of three 115 kV circuit breakers proposed as part of the Glennallen-Sutton Intertie. The significance of the circuit breaker arrangement was shown to be relevant in three Railbelt disturbance situations. These are disturbance Items 3, 4 and 5 noted above.

The effect of Railbelt disturbance Item 3 (loss of Eklutna-Teeland 115 kV line) was

discussed in the preceding paragraph. As noted, this disturbance assumed breaker Configuration A (115 kV breakers located at the O'Neill Substation). As discussed and as can be observed from the above diagram, this configuration exposes the intertie to continuity failures for any fault occurring on the MEA 115 kV system between O'Neill, Teeland and Eklutna. This exposure consists of 55 miles of 115 kV line with seven tap load substations. Configuration A increases the effective Glennallen-Sutton Intertie exposure by about 41 percent (relative to the intertie's 134 mile length) to 189 line miles.

To reduce exposure of the Glennallen-Sutton Intertie to disturbances and to preserve its continuity, breaker Configuration B is proposed. It allows for faults along the Eklutna-Teeland 115 kV line to be isolated at the O'Neill Tap Substation without opening the intertie. Since the MEA 115 kV transmission loop can provide two-way feed (i.e., from either Teeland or Eklutna), breaker Configuration B maximizes the benefit of this two-way feed capability. Under Configuration B, the intertie exposure is only 12 percent more (relative to the intertie's 134 mile length) or 150 line miles with only one tap load substation. This arrangement also benefits the MEA system since it reduces the exposure of MEA's load to disturbances between Eklutna and Teeland.

In addition to the increased, effective intertie exposure created the Configuration A, it has a further disadvantage (to the CVEA system) in that disturbances on the MEA 115 kV system will leave MEA's O'Neill load 'hanging' on CVEA. Under conditions where imports into CVEA are low or when sufficient diesel generation is on-line in the CVEA system, the CVEA system can handle the MEA load acceptance created under this breaker configuration. However, under heavy import situations or where the CVEA system is operating with a predominantly hydro dispatch, the MEA load acceptance can not be tolerated and it will worsen the effect of the intertie loss on the CVEA system.

Breaker Configuration B, however, has one disadvantage compared to Configuration A in that the intertie is exposed to faults at the O'Neill Substation and associated facilities. Depending on the planned location of the 138/115 kV substation installed with the intertie, this exposure may at most consist only of 1-2 miles of 115 kV line and the transformer at the O'Neill Substation. However, such exposure is small compared to the total line and tap load substation exposure to the intertie created under breaker Configuration A.

### **Load Shedding in the CVEA System**

The CVEA system presently does not utilize underfrequency load shedding. Severe low frequency problems are responded to by tripping all generation on the CVEA system and allowing all load on the system to 'go black'.

As shown in many of the dynamic simulations, loss of the proposed Glennallen-Sutton Intertie or outages on the CVEA 138 kV system can result in collapse of all or a portion of the CVEA system. The potential for collapse of the CVEA system

increases as the power imports become larger and as the amount of on-line diesel generation in the CVEA system is reduced. As noted earlier, with the intertie both situations are likely to exist as they form the economic basis for consideration of the Glennallen-Sutton Intertie.

Low frequency situations periodically effect the Railbelt system and are the result of generation losses. The Railbelt utilities presently respond to underfrequency situations through underfrequency load shedding. The Railbelt utilities share in the response to underfrequency situations by shedding load in proportion to their total system load. Under interconnected system operation, the CVEA system will also be subject to low frequency conditions originating in the Railbelt system. CVEA will likely be required as part of this interconnection to also share in load shedding response to underfrequency situations.

Thus, underfrequency load shedding will be needed in the CVEA system as part of the interconnection. Underfrequency load shedding can also benefit the CVEA system. It will allow CVEA to preserve service to critical loads (e.g., hospitals, emergency facilities, communications facilities, airports, etc.) when all or a portion of the CVEA system is islanded with limited generation resources.

The application of underfrequency load shedding relays was tested for significant islanding disturbances (i.e., faults on the 138 kV lines which cause large generation and load imbalances) on the CVEA system. Under high imports where there are few units on-line, and frequency will drop rapidly. Thus, underfrequency load shedding points were selected which were spaced at 1 Hz intervals to allow sufficient opportunity for governor response and to prevent over-shedding. Three frequency points were chosen for the underfrequency load shedding simulations: 59.0 Hz, 58.0 Hz, and 57.0 Hz.

Simulations were run for four islanding disturbances with underfrequency load shedding. For each disturbance, different levels of CVEA import were considered. The CVEA generation dispatches considered were those which might likely exist under an interconnected system condition (i.e., limited diesel generation). The disturbances and import/generation dispatch scenarios simulated are summarized as follows:

- 1) Fault and trip of Glennallen-Sutton Intertie
  - 5 MW CVEA Import
  - 10 MW CVEA Import
- 2) Fault and trip of PS11-PS12 138 kV line
  - 5 MW CVEA Import
  - 10 MW CVEA Import
- 3) Fault and trip of PS12-Meals 138 kV line
  - 5 MW CVEA Import
  - 10 MW CVEA Import
- 4) Fault and trip of Eklutna-Teeland 115 kV line, Configuration A
  - 0 MW CVEA Import, Predominately Hydro Dispatch

The location and amount of load shedding occurring in each stage was estimated based on the expected generation/load imbalance for the various failure modes and generation dispatch conditions. Thus, only one load shedding schedule was simulated for these disturbances. The plots from these simulations are given in Appendix JJ.

The worst case scenario (as was be expected) is for the import of 10 MW with very little internal CVEA generation. The worst disturbance is the loss of the Glennallen-Sutton Intertie which islands the entire CVEA system. Based on the results of these simulations, a load shedding schedule was developed which can prevent total collapse of the islanded portion of the CVEA system for the 5 MW and 10 MW import cases. However, as observed for disturbance Item 4 above, the load shedding scheme which provided adequate response for the other disturbances over-shed for the small MEA load acceptance placed on the CVEA system as a result of this disturbance.

Thus, much additional investigation will be required to develop a load shedding scheme which will provide the proper response under a broad range of islanding and generation/load imbalance conditions. Moreover, investigation into load shedding requirements when operating as part of the interconnected Railbelt system will be required. The intent of this investigation was not to select or design an underfrequency load shedding scheme for the CVEA system, but merely to demonstrate possible load shedding options and system response when operating as an interconnected system.

**SUPPLEMENT  
TO THE  
ELECTRICAL ANALYSIS OF THE  
COPPER VALLEY TRANSMISSION INTERTIE**

**INTRODUCTION**

This report is a supplement to the main report on the **Electrical Analysis of the Copper Valley Transmission Intertie**. The main report presents the results of the electrical analysis of the proposed Copper Valley Transmission Intertie with the Copper Valley and Railbelt electrical systems operating under present day system load and generation dispatch conditions (initial study). This supplemental study extends the analysis performed in the initial study by considering operation of the proposed intertie facilities under future system load scenarios where transfers into the Copper Valley system are maximized. This analysis is part of the Phase I effort. This analysis was performed and documented by Power Technologies, Inc. (PTI) as sub-consultant to R. W. Beck and Associates.

The proposed intertie facilities and study data base were described in the initial study report and form the basis on which this supplemental study is conducted. The analysis performed on the proposed Glennallen-Sutton Intertie and summarized in this report consists only of steady-state power flow analysis. This analysis provides a preliminary indication as to the capability of the proposed interconnection facilities under future system load scenarios.

**SUMMARY**

The results of the steady-state power flow analysis show that the interconnection between the CVEA and Railbelt systems, consisting only of the presently proposed facilities, can provide only modest power transfer capability (about 23 MW) into the CVEA system under system intact conditions. The results demonstrate that the maximum single-contingency, power transfer capability is only slightly above the 10 MW transfer level considered in the initial study. The maximum transfer capability is limited primarily by outage conditions and facility limitations in the Railbelt system.

Based on a future loading scenario where both the CVEA and MEA system loads are increased by the same percentage above present winter peak load levels, the transfer limits of the intertie are shown in the following table. These transfer limits are based on either voltage or line loading limitations for the system condition noted. As discussed later, these limits are also based on minimum generation within the CVEA system (only one Solomon Gulch unit on-line).

**Intertie Transfer Limits For Future Load Conditions  
Based On CVEA And MEA Loads Both Scaled**

System Condition	Transfer Limit	Limiting Factor
System Intact	23.7 MW	Voltage on MEA system
115 kV Breaker Open at Teeland	14.9 MW	Voltage on MEA system
Pt. Mackenzie-Teeland 230 kV Out	13.7 MW	Line loading on MEA system

The above transfer limits are achievable only by switching off all or nearly all of the line connected shunt reactors (including the 10 Mvar reactor recommended for the intertie) in the CVEA system. This allows the surplus line charging produced in the CVEA system to support voltages on the MEA system. These transfer levels result in var flows from the CVEA to the MEA system of between 12.5 Mvar and 15 Mvar.

Based on a future loading scenario where only the CVEA system load is increased (i.e., no load growth in the MEA system) above present winter peak load levels, the transfer limit of the intertie is shown in the following table. The transfer limit was determined only for a system intact condition. This limit is also based on minimum generation within the CVEA system (only one Solomon Gulch unit on-line).

**Intertie Transfer Limits For Future Load Conditions  
Based On Only The CVEA Being Scaled**

System Condition	Transfer Limit	Limiting Factor
System Intact	27.0 MW	Voltage on CVEA system

The above transfer limit is achievable only by switching off all of the line connected shunt reactors (including the 10 Mvar reactor recommended for the intertie) in the CVEA system. This limit is based on the steady-state voltage stability limit being reached at the southern end of the CVEA system. Comparison of this transfer limit with the system intact transfer limit noted in the first table demonstrates the impact of MEA load growth on the intertie transfer capability.

Regardless of the load growth scenario assumed (i.e., CVEA growth only or combined CVEA and MEA growth), system voltage limitations are the dominant factor which limit the transfer capability of the intertie. Further, switching off the majority of the shunt compensation in the CVEA system is necessary to reach the levels shown. Based on the large difference between the system intact and contingency transfer levels shown in the first table, operation at the system intact level would not be possible without the risk of voltage collapse following a single contingency. As noted, the system intact transfer level shown in the second table is based on reaching the

steady-state voltage stability limit of the southern CVEA system. At this transfer level, small load changes result in drastic voltage changes. Thus, operation at or near this point would not be possible without the risk of system voltage collapse.

Operation at or above the single contingency transfer limits noted would require additional facilities to provide dynamic voltage control (such as static var compensators - SVC) since small load changes result in large voltage changes under the conditions simulated. Depending on the transfer level to which the intertie would be operated, the pattern of future load growth, and minimum generation configurations to be used, one or more SVC would be required. Distributed, modest-sized, switched shunt capacitor additions would also be required on the MEA system in order to support the higher transfers and eliminate the voltage limitations which have been identified. These would be needed in conjunction with SVCs.

The requirement for an SVC becomes a significant consideration for the CVEA system if it is operated with the majority of shunt reactors switched off. Dynamic voltage control will likely be required under such cases to control over voltages following loss of load or other load rejection situations. However, consideration and use of an SVC at Pump Station 11 as part of the interconnection facility would replace the need for the 10 Mvar shunt reactor recommended in the initial study. Further, an SVC would also eliminate the need to provide switching facilities for the existing 138 kV, 5 Mvar line reactor at Pump Station 11 in order to accommodate higher power transfers.

The contingency transfer limitation shown in the first table and based on line loading limitations in the MEA system (i.e., for the Pt. Mackenzie-Teeland 230 kV outage) would not be affected significantly by the addition of SVCs and capacitors. This limitation occurs largely as a result of through-power flows associated with Anchorage to Fairbanks power transfers and higher MEA system loads. Correction of this problem would necessitate either the reconductoring of a significant portion of the 115 kV lines in the MEA system (particularly those between Anchorage and the O'Neill Tap), or the construction of a higher voltage (i.e., 230 kV) transmission system overlay between Teeland and Anchorage.

## DISCUSSION

### Data Base & Simulation Conditions

The power flow data base developed for the initial system analysis and reported in the main report was also utilized for this supplemental study. To better define permissible system low voltage operating limits and existing line loading capabilities, additional information was solicited from both CVEA and MEA.

Based on information gathered from MEA, the following items summarize the new operating guidelines applicable for and used in this study:

- Under system intact conditions, voltages on the MEA 115 kV system should remain at or above 95%.



- Under single contingency conditions, voltages on the MEA 115 kV system should remain at or above 90%.
- The majority of the Plant 2 to Briggs Tap 115 kV line is 954 KCM ACSR conductor and a very minor portion is 397.5 KCM ACSR. The thermal line limit should be based on the larger conductor (i.e., 200 MVA limit).
- The remainder of MEA's 115 kV lines have 397.5 KCM ACSR conductor, and the winter thermal limit on these lines is 120 MVA.

Based on information gathered from CVEA, the following items summarize the new operating guidelines applicable for and used in this study:

- Under all system conditions, voltages on the CVEA 138 kV system should remain at or above 95%.
- The CVEA system would always operate with at least one Solomon Gulch hydro unit on-line for area protection and var support.

For this supplemental study, the base load condition for the CVEA and MEA systems was assumed to be the winter peak load used in the initial study and shown in the following table:

Base Winter Peak System Loads	
CVEA	MEA
12.2 MW + j 4.6 Mvar	82.5 MW + j 24.1 Mvar

The winter peak base load condition shown above is indicative of the maximum, near-term loading conditions on the two systems. The MEA load shown above represents only that portion of load served from the 115 kV line between the Plant 2 and Teeland substations. In simulating MEA load growth for this study, this is the only portion of the MEA load which was scaled. This is the only portion of the MEA load which significantly effects the voltages and loadings on the 115 kV facilities serving the proposed intertie. The scaling of CVEA and MEA loads in this study is based on maintaining a constant load power factor (i.e., vars increased proportional to watts).

For the future winter peak load conditions evaluated, only a single CVEA generation dispatch is considered. This dispatch assumes only Solomon Gulch Unit 1 on-line at 2 MW power output. The unit's var output is determined by system voltage regulation requirements. The Railbelt system base generation dispatch is identical to the winter peak dispatch utilized in the initial study. However, this dispatch is modified to accommodate increased CVEA and MEA loads considered in this study by adjusting generation at the Beluga power plant.

### Steady-State Power Flow Simulations

Several power flow simulations were performed to determine the maximum power transfer capability of the proposed intertie facilities under future system loading conditions. The transfer capability was determined by analyzing system voltage levels and line loading levels based on the guidelines noted above. The analysis consisted of evaluating the system initially operating in a normal, intact condition and then under two different single contingency situations. The contingencies selected were the two worst contingency conditions identified in the initial study. The contingencies simulated are:

- The MEA 115 kV system open-ended at Teeland
- The Pt. Mackenzie-Teeland 230 kV line out of service.

The results are shown in the one-line power flow diagrams attached at the end of this supplemental report and are referenced in the following discussion by figure number.

For all simulations, the line connected shunt reactors on the CVEA system, including the 10 Mvar line-connected shunt reactor recommended in the initial study for the intertie, were switched off as necessary to offset the low system voltages created by the higher loadings and contingency situations.

The initial simulations considering future system loadings utilized the assumption that load growth would occur on an equal percentage basis on both the CVEA and MEA systems. Figures 1A and 1B represent the MEA and CVEA system under an intact condition with the loads scaled about 97% above the near-term winter peak levels. This corresponds to a CVEA load of 24 MW and an MEA load (Anchorage-Teeland portion only) of 162.6 MW. The intertie transfer limit (Sutton-Pump Station 11 line flow) for this condition is identified as 23.7 MW. This limit is based on the low voltage limit of 95% being reached at Lucas on the MEA system. This limit is based on all shunt reactors on the CVEA system being switched off.

Figures 2A and 2B represent the MEA system under a single contingency condition where the Teeland-Cottle 115 kV line section is open at Teeland. For this case, the CVEA and MEA loads are scaled about 33% above the near-term winter peak levels. This corresponds to a CVEA load of 16.2 MW and an MEA load of 109.4 MW. The intertie transfer limit for this conditions is identified as 14.9 MW. This limit is based on the low voltage limit of 90% being reached at Cottle on the MEA system. This limit is based on all shunt reactors on the CVEA system, except the 3 Mvar reactor at Pump Station 12, being switched off.

Figures 3A and 3B represent the Railbelt system under a single contingency condition where the Pt. Mackenzie-Teeland 230 kV line is out of service. For this case, the CVEA and MEA loads are scaled about 24% above the near-term winter peak levels. This corresponds to a CVEA load of 15.1 MW and an MEA load of 102.3 MW. The intertie transfer limit for this conditions is identified as 13.7 MW. This limit is based on the Eklutna-Dow 115 kV line section on the MEA system reaching its thermal

limit of 120 MVA. For this case, all shunt reactors on the CVEA system, except the 3 Mvar reactor at Pump Station 12, are switched off.

An alternate future system loading scenario is shown in Figures 4A and 4B. This case utilized the assumption that load growth would occur only on the CVEA system. This case represents the MEA and CVEA system under an intact condition. The load on the CVEA system is scaled to about 219% above the near-term winter peak level. This corresponds to a CVEA load of 26.8 MW. The intertie transfer limit for this condition is identified as 27 MW. This limit is based on the low voltage limit of 95% being reached at the 138 kV bus in the Meals Substation on the CVEA system. This limit is based on all shunt reactors on the CVEA system being switched off. This voltage limit is at the steady-state voltage stability limit for the southern CVEA system. Simulations run with a 1% higher CVEA load (not documented in this report) resulted in voltages at the Meals 138 kV bus of about 70%. Power flow model solution convergence failure occurred if loads were scaled any higher.

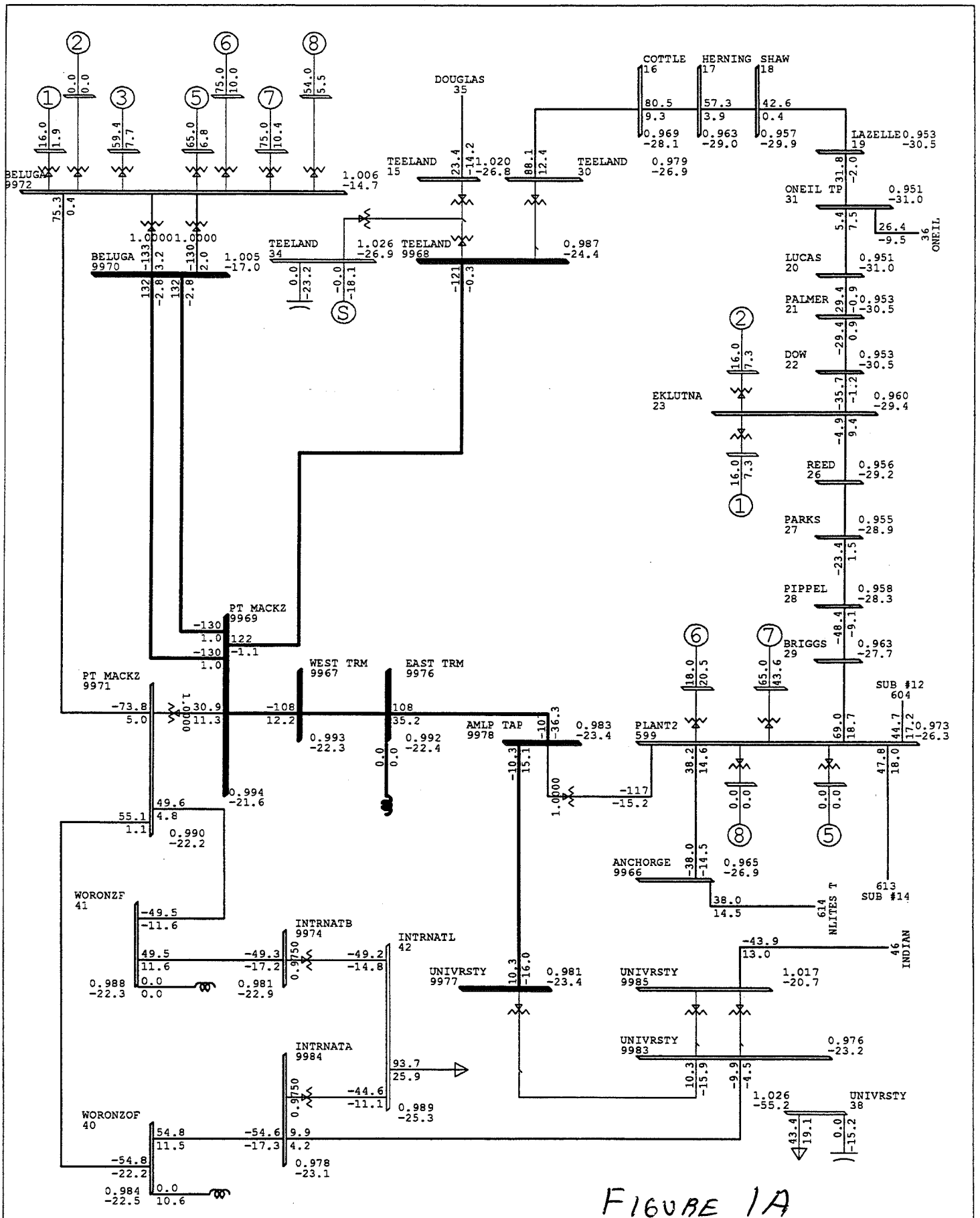
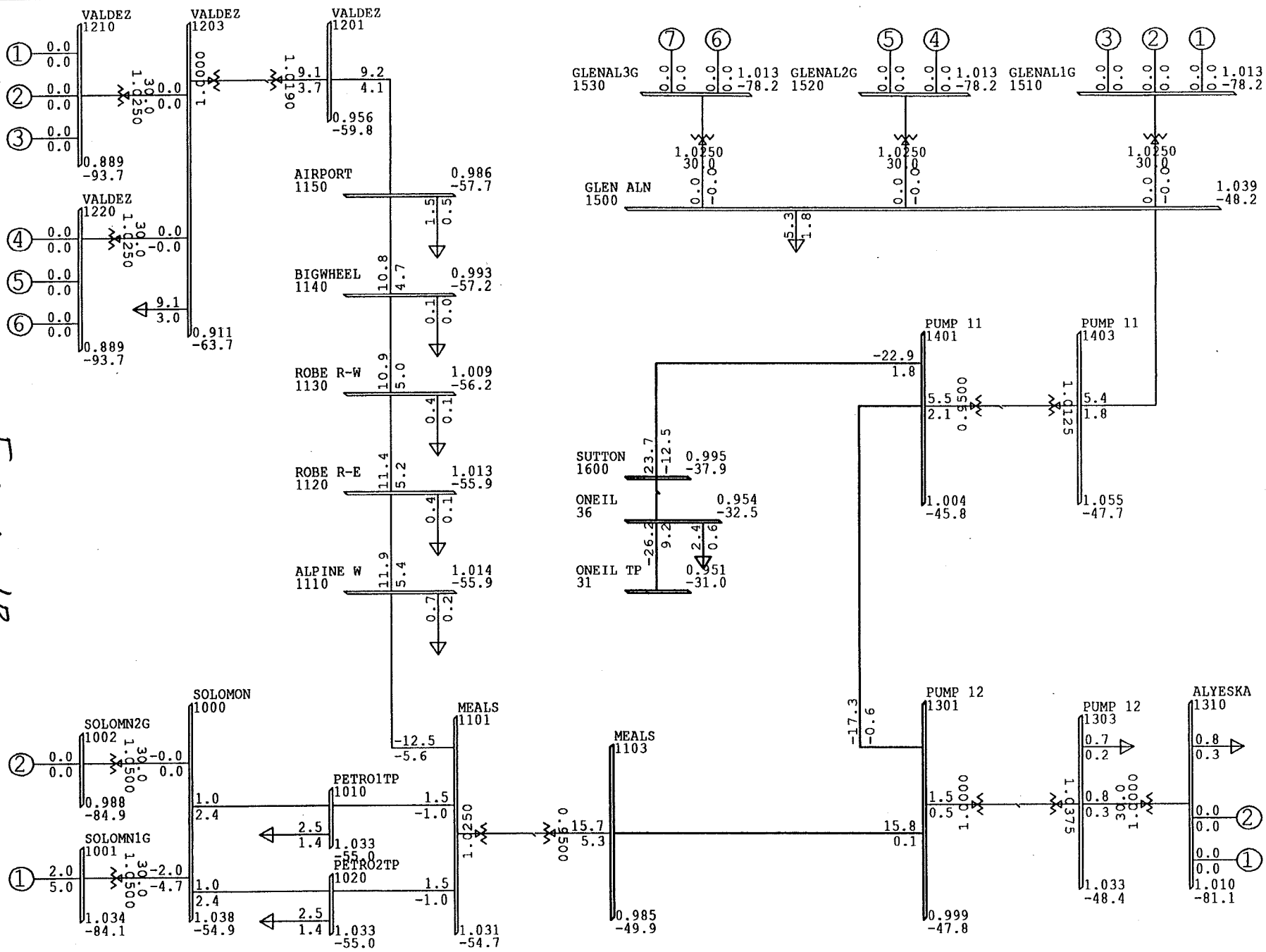


FIGURE 1A

FIGURE 1B



RAILBELT & CVEA CONNECTED; FUTURE WINTER. SOLOMON #1 ON.  
 SYSTEM INTACT. MEA & CVEA LOAD: 162.6 & 24MW.  
 WED, OCT 06 1993 09:32

KV: ≤69 , ≤138 , ≤230

BUS - VOLTAGE (PU) / ANGLE  
 BRANCH - MW/MVAR  
 EQUIPMENT - MW/MVAR

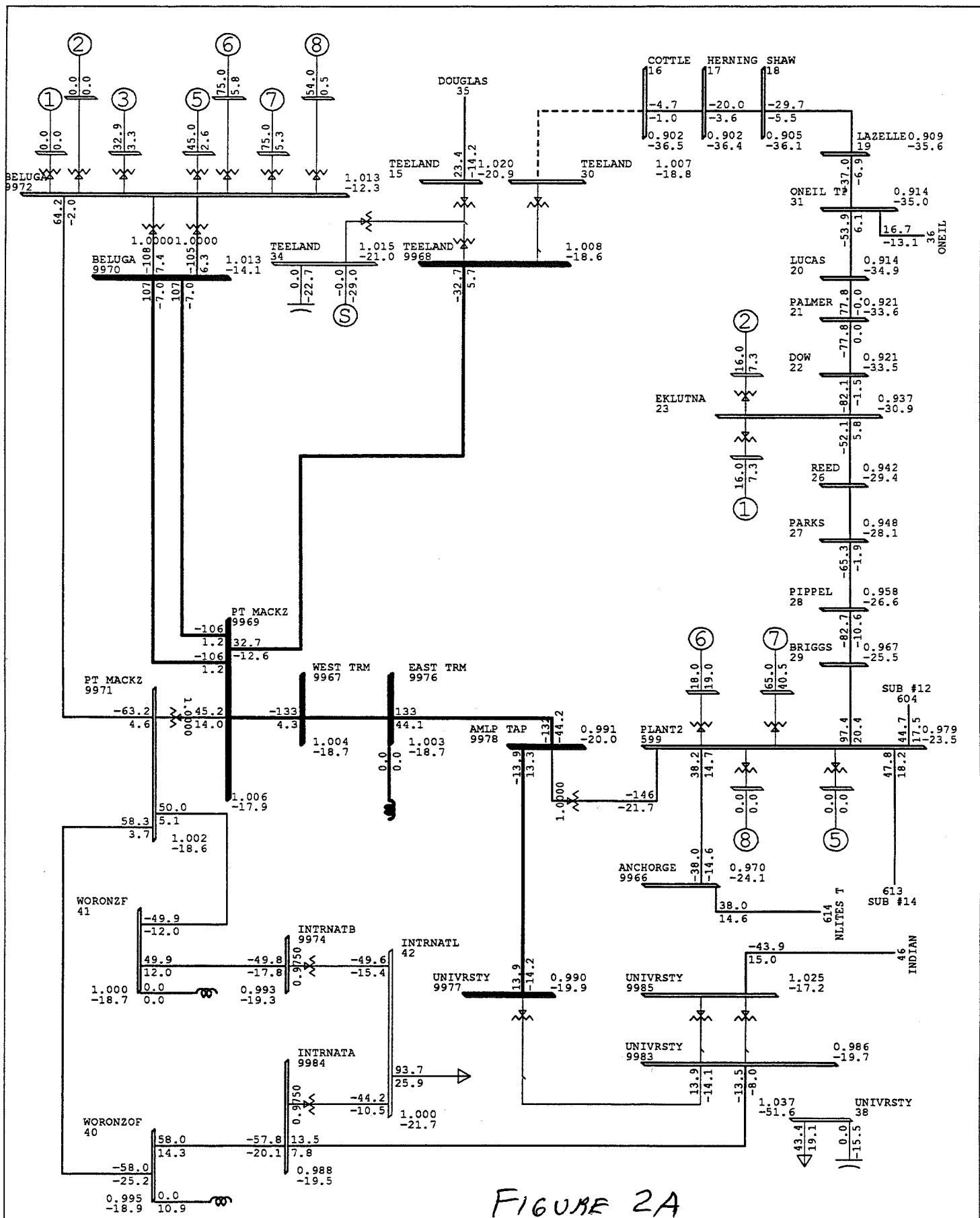
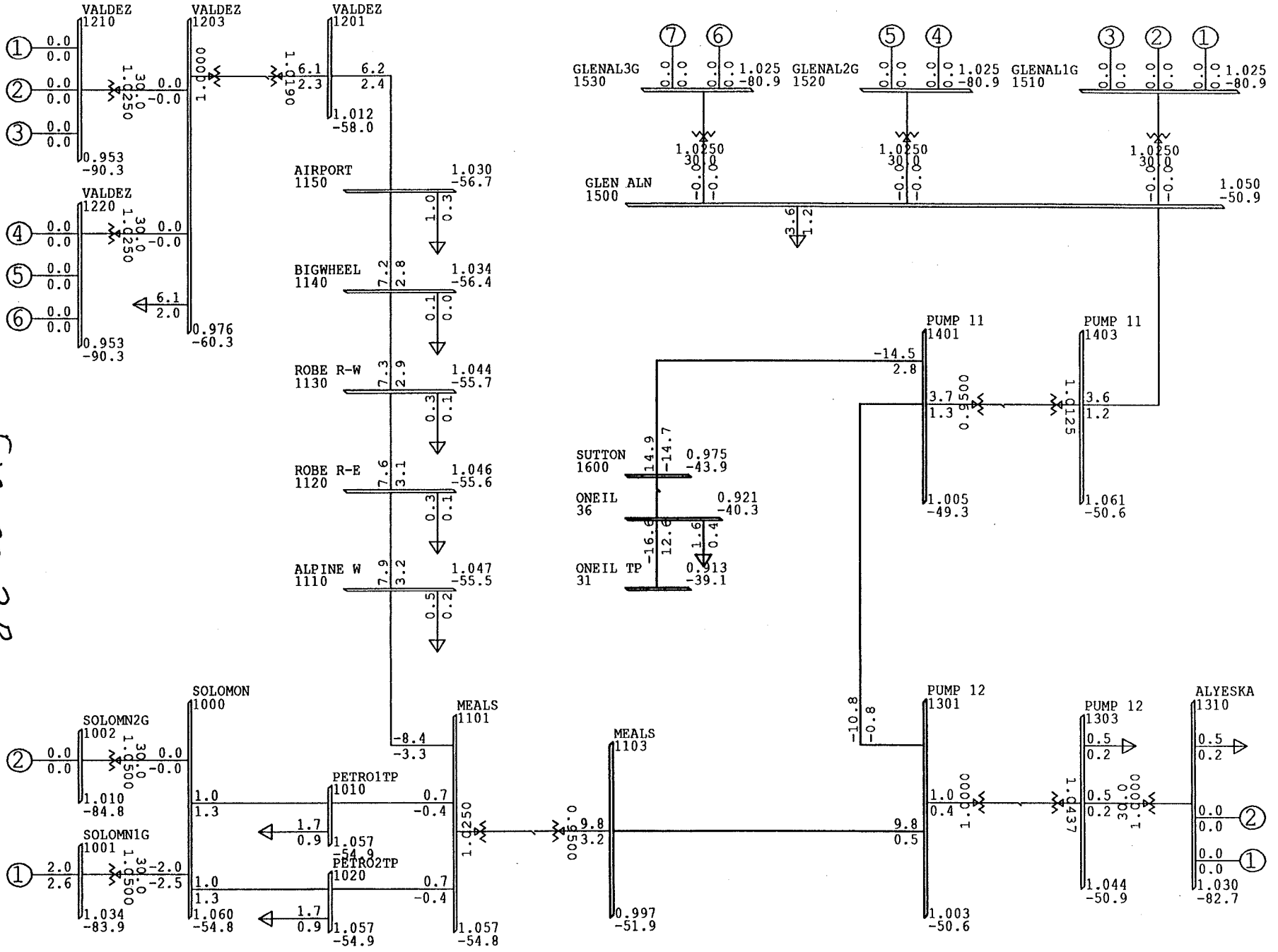


FIGURE 2A

FIGURE 2B



RAILBELT & CVEA CONNECTED; FUTURE WINTER. SOLOMON #1 ON.  
 MEA SYSTEM OPEN @ TEELAND. MEA & CVEA LOADS: 109.4 & 16.2MW.  
 WED, OCT 06 1993 08:42

KV: <69, <138, <230

BUS - VOLTAGE (PU) / ANGLE  
 BRANCH - MW/MVAR  
 EQUIPMENT - MW/MVAR

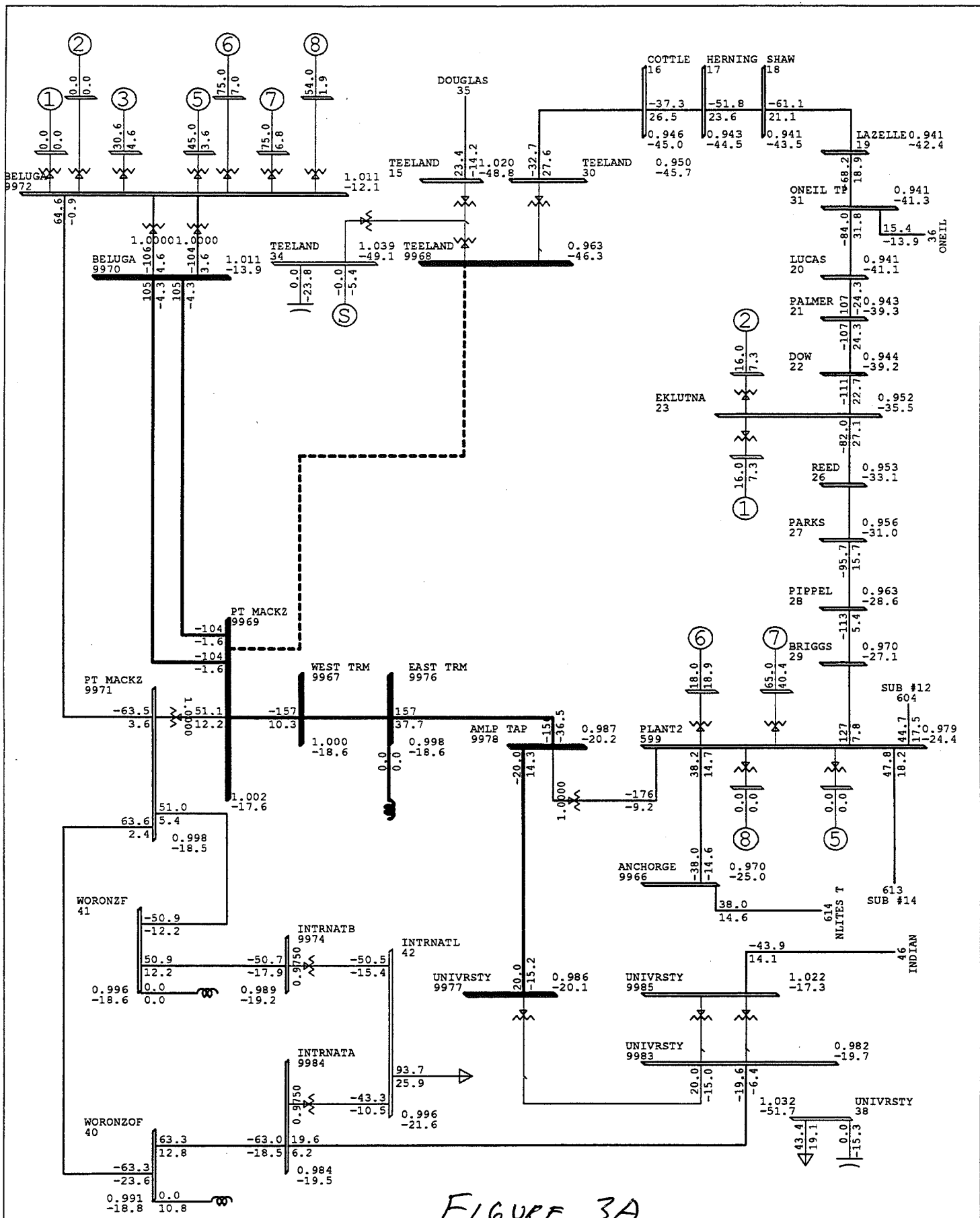


FIGURE 3A

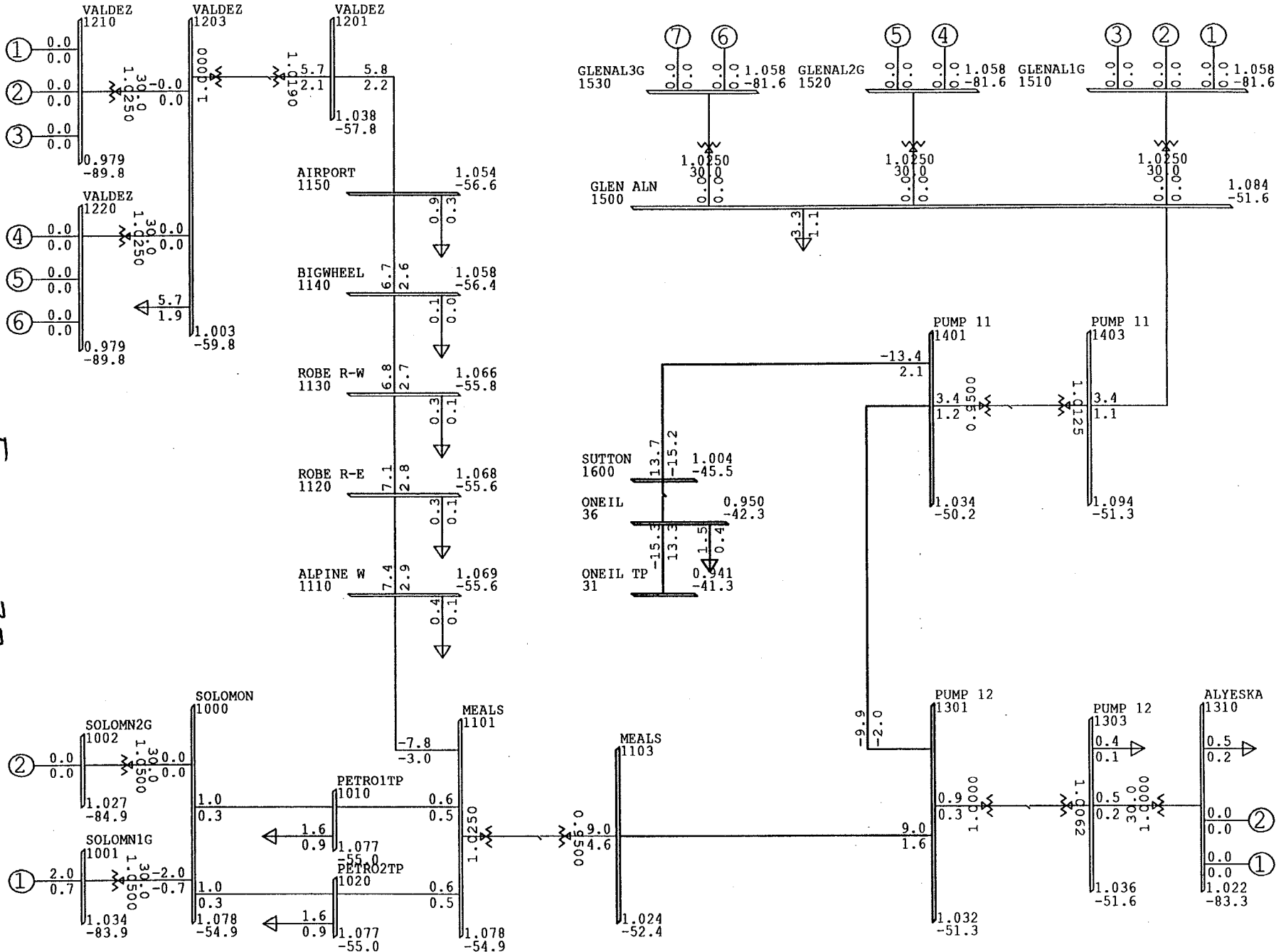
RAILBELT & CVEA CONNECTED; FUTURE WINTER. SOLOMON #1 ON.  
 PT. MACK-TEELAND 230KV OUT. MEA & CVEA LOAD:  
 WED, OCT 06 1993 08:55

KV: 569, 5138, 230





FIGURE 3B



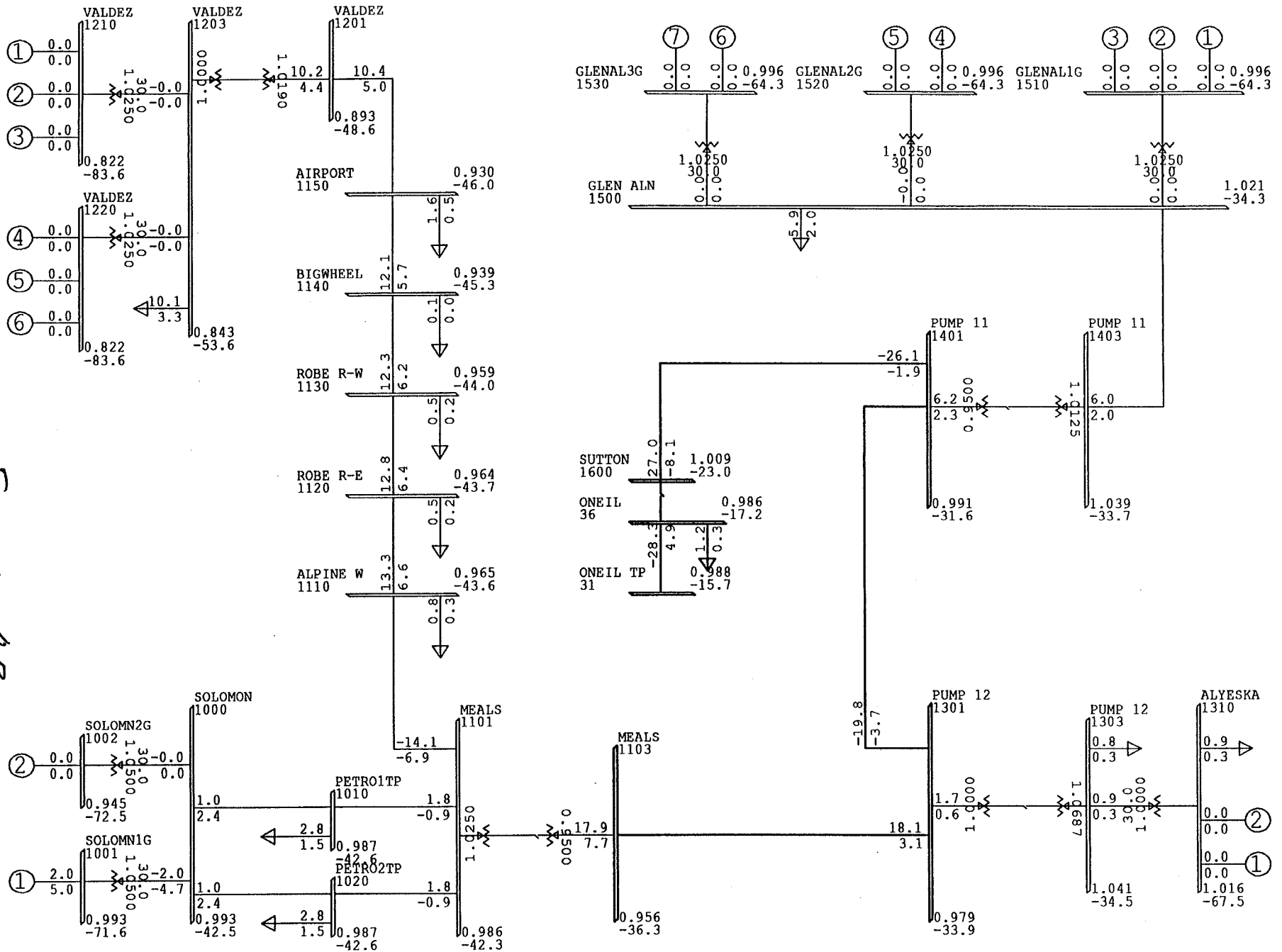
RAILBELT & CVEA CONNECTED; FUTURE WINTER. SOLOMON #1 ON.  
 PT. MACK-TEELAND 230KV OUT. MEA & CVEA LOAD:  
 WED, OCT 06 1993 08:55

KV: <math>\leq 69</math>, <math>\leq 138</math>, <math>\leq 230</math>

BUS - VOLTAGE (PU) / ANGLE  
 BRANCH - MW/MVAR  
 EQUIPMENT - MW/MVAR



FIGURE 4B



RAILBELT & CVEA CONNECTED; FUTURE WINTER. SOLOMON #1 ON.  
 SYSTEM INTACT. CVEA LOAD = 26.8MW. MEA LOAD NOT SCALED.  
 WED, OCT 06 1993 10:27

KV: ≤69 , ≤138 , ≤230

BUS - VOLTAGE (PU) / ANGLE  
 BRANCH - MW/MVAR  
 EQUIPMENT - MW/MVAR