Chapter 1. Overview

The following pages contain brief descriptions of the contractual arrangements that govern electricity provisions in the Railbelt. Fuel supply contracts for Railbelt electrical generation are presented first. Wholesale power supply contracts are presented next. Finally, agreements for or directly affecting the transmission of power are offered. Charts outlining the arrangements of fuel and wholesale electricity contracts are presented at the beginning of the packet.

The goal of the document is to afford the reader an intuitive understanding of contract structure, along with pertinent terms and conditions for each of the contracts. The intent is to provide the Commission with a knowledge base for use in future proceedings in R-97-10, the Electric Market Structure Docket. The document is organized to present summaries of each contract in a uniform format. Graphic presentations are also included to show the overall structure in which individual contracts reside.

Before proceeding some caveats are in order. Many contractual details are necessarily not discussed. The purpose is to summarize, not to reproduce, the fuel supply, wholesale power, and transmission agreements. Some contract provisions may have been excluded that nevertheless prove relevant to Railbelt market structure and conduct. In addition, although the Railbelt utilities have reviewed and provided comments on an earlier version, the enclosed summaries may contain factual errors. Finally, we stress that the summaries do not represent a Commission finding of fact or law and our descriptions here should not be seen as precedent setting in any other proceeding.

Fuel Supply Contracts

Southern Railbelt (Natural Gas Based)

Natural gas used by railbelt utilities comes from Cook Inlet. There are two utility buyers and three sellers of this gas. Chugach buys from the Beluga Field Producers (ML&P, Phillips, and Chevron), Marathon, and (in effect) AEG&T/HEA. ML&P buys from the Beluga Field Producers (including itself).

None of the gas supply contracts are “take or pay”; they are, instead, “net requirements”\(^1\). The distinction is important. Net requirements arrangements provide freedom for the utility to optimize dispatch, subject to the constraint that different plants are tied to specific fuel sources and/or prices.

\(^1\) See definitions at the end of this section.
Chugach’s contractual relationships are complex. Gas contracts are tied to specific generating plants, as follows.

**Beluga** Chugach must purchase 60 percent of its fuel requirements from the Beluga Field producers collectively (1/3 each), except that gas for GVEA sales falls outside this requirement. (Each of the Beluga Field producers has a substantially similar contract with Chugach.) Chugach must buy 40 percent of its Beluga plant requirements from Marathon, where again gas for GVEA sales falls outside this requirement. Base prices are different between the Marathon and Beluga Field producer contracts and also among the three contracts with Beluga producers.

**Bernice Lake** Chugach must use Marathon-supplied gas when it generates power at the Bernice Lake plant. Prices are the same as for delivery to the Beluga power plant (transportation is included.)

**International** Chugach must use Marathon-supplied gas when it generates power at the International generating plant. Prices are the same as under the Beluga/Marathon Contract. Chugach pays a transportation fee to ENSTAR.

**Nikiski** Chugach provides Marathon gas or compensates AEG&T/HEA for gas burned in the Nikiski plant. AEG&T/HEA gets the gas it provides on an in-kind basis, from ANP, in exchange for providing steam. The plant only burns AEG&T/HEA gas once HEA has purchased 350 GWh/year from Chugach.

**ML&Ps** supply relationships are comparatively simple.

**Plants 1 and 2** All requirements come from the Beluga River field producers (including itself). Specific terms under which ML&P sells gas to itself are under investigation in U-96-36.

**Northern Railbelt (Coal and Fuel Oil Based)**

Base load generation north of the Alaska Range is a mix of coal and oil. Coal comes exclusively from the Usibelli Coal Mine near Healy. Sources of oil fuels are the Williams refinery in North Pole. Oil fuels combustion-turbine generation resources owned by GVEA. The combustion turbines presently see major application in peaking service.

There presently are five primary generation plants that use coal and oil: GVEA; Aurora Energy; University of Alaska Fairbanks; US Army (Fort Wainwright); US Airforce (Eielson and Clear). The Commission does not have a complete set of contracts for utilities that fall under RCA jurisdiction.²

² Northern region utilities regulated by the RCA are GVEA and Aurora Energy.
Wholesale Electric Contracts

Wholesale electric contracts can be grouped into three main “markets”.

The first is a selling “market”, characterized by Chugach being the supplier for all (or most) of other utilities’ power and energy requirements. The buyers in this market are MEA, SES, and HEA -- utilities that are all in the Kenai-Anchorage area. MEA is under an all requirements arrangement with Chugach. SES has an all requirements arrangement with Chugach, except that Chugach may interrupt SES load on a certain number of occasions each year. Chugach supplies all of HEA’s power requirements up to 73 MW. HEA/AEG&T is obligated to purchase from Chugach a minimum of 350 GWh of energy each year and -- after HEA/AEG&T takes its Bradley Lake energy -- all of its residual energy requirements up to 320 GWh.

The second “market” is defined by GVEA as a large buyer. GVEA meets roughly 40 percent of its total energy needs through power purchases. The suppliers in this market are AIDEA (Healy Clean Coal Project); AEA (Bradley Lake energy); Aurora Energy (firm power from the Chena plant); Chugach (nonfirm, economy, energy); and ML&P (economy spot market energy). Under contracted terms AEA and Aurora Energy are priority sellers; Bradley Lake energy is take-or-pay, and Chena 1 is contracted to be base-load “firm” energy. Chugach has priority for meeting GVEA’s non-firm needs. It has rights to supply 2/3 of GVEA’s first 450 GWh, and 4/5 of subsequent, nonfirm needs (if any). Chugach and ML&P now compete on the “economy energy spot market” for the remainder of GVEA’s nonfirm needs. Competitive supply entry is possible for any utility wishing to provide firm or non-firm power, subject to conditions imposed under GVEA’s nonfirm energy contract with Chugach.

The third “market” centers around the Bradley Lake Hydroelectric Project. Funded by the State of Alaska through the AEA, Bradley Lake provides power to each of the railbelt utilities. The AEA, as owner of the Project, sells power to each of the Railbelt utilities through the Bradley Lake Power Sales Agreement. Both MEA and SES pool their shares with Chugach under a net-billing arrangement. Chugach receives rights to MEA’s and SES’s Bradley Lake power, and provides a credit on their respective wholesale bills that is equal to their Bradley Lake purchase cost. As the only utilities that currently require wheeling of Bradley Lake Power, ML&P and GVEA have a Services Agreement with Chugach. The Services Agreement delineates the terms under which Chugach provides

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3 The Healy Clean Coal Project is presently not producing power. AIDEA and GVEA are in a process to determine what will happen with the Project.

4 While the contract references the “Alaska Power Authority”, the functions and duties of the former APA are now vested with the Alaska Energy Authority, a division of the Alaska Industrial Development and Export Authority.
wheeling, storage, and purchase services that may prove necessary for wheeling utilities to make use of their Bradley Lake resources.

**Transmission Agreements**

There are three transmission rate agreements on file with the Commission. The first concerns rates that Chugach charges for wheeling, energy storage, and (if necessary) purchase of another utility’s Bradley Lake energy over its system. This is known as the Bradley Lake Services Agreement. Second, the Intertie Operating Agreement sets conditions for rates paid by wheeling utilities to the AEA for use of the Intertie. Lastly, a stipulation sets wheeling rates that Chugach and GVEA charge for use of their facilities when energy is transmitted over the Intertie. For purposes of wholesale sales, Chugach and GVEA do not directly charge themselves for their own lines. The costs of transmission are therefore embedded in other Chugach rates.

**Definitions**

A few terms of art regularly appear throughout the following contract summaries. While working definitions are provided for reference, particular contracts may use these terms somewhat differently.

**All Requirements**

An “all requirements” contract generally requires the contracting purchaser to meet all of its energy or power needs from the contracting supplier. Neither minimum nor maximum purchases are specified. In consequence, the purchaser pays only for what it uses and may not shop for other supply.

**Most Favored Nation**

Generally, a contract with a “most favored nation” clause gives the purchaser the right to elect the terms of trade, in total, that are offered to any third party.

**Take Or Pay**

A “take or pay” contract generally requires the contract purchaser to take a fixed quantity of energy or power from the contract supplier. If the purchaser fails to actually need the contracted minimum, it must pay for it nevertheless. The customer may or may not have the right to purchase an additional amount.

**Net Requirements**

A “net requirements” contract requires the contracting purchaser to meet its energy or power needs above that received from identified sources other than those of the contracting supplier. This arrangement differs for an “all requirements” contract in that not all of the requirements come from the contracting supplier.
Chapter 2. Chugach and Beluga Field Producers Contract

Note: The following contract description refers occasionally to “ARCO”. This is a consequence of lifting language from the particular wholesale contract between ARCO and Chugach. Chugach has essentially identical contracts with the other Beluga Field producers (now Phillips, Chevron and ML&P). Thus, “ARCO” in this memo should be read as referring to a generic Beluga Field producer.

Gas Contracts Between Chugach & Beluga Field Producers

There are two Agreements governing sales:

* The Basic Agreement (4/21/89)
* Supplemental Gas Agreement (Fall, 1991).

If total deliveries on a given day are less than 60,000 MCF then deliveries are under the Basic Agreement. If total delivers on a given day exceed 60,000 MCF then the Supplemental Agreement kicks in. The terms of these two agreements are outlined below.

I. Basic Agreement (APUC approved 12/20/89)

Contract runs through 2025, until Period #1 Gas plus 300 Bcf (100 per producer) is delivered, or until the Beluga field ceases to produce -- whichever is earliest. These are “net requirements”, not “all requirements”, contracts. There are four “types” of gas covered in the contract. Terms for each are described, below.

A) Period #1 Volume is equal to the total volume of Old Beluga Gas remaining to be taken.

i) Time Horizon
“Old Beluga Gas” is gas that was contracted for under the “Old” (1973) Beluga contract. Old Beluga Gas has been exhausted since 1996.

B) Period #2 Volume is 180 Bcf (60 per producer) of Contract Gas in addition to Period #1 volume.

i) Time horizon
We are now in Period #2 of the Basic Agreement and will be until either 180 Bcf is used or 1/1/2014, whichever comes first.
ii) *Chugach consumption requirements*

Chugach *must* purchase 60 percent of its daily and annual gas needs at Beluga from the Beluga Field Producers. (It is understood, under the terms of the Contract, that Marathon will supply up to 40 percent of the Beluga plant’s needs.)

1) This percentage is not calculated with reference to gas that Chugach purchases under its Marathon Contract to:
   a) generate power to sell under the GVEA Contract or for either Incremental or Displacement sales to other utilities;
   b) meet increased requirements at Beluga that result from consolidation of Chugach and ML&P.

2) Chugach is prohibited from entering into contracts that would reduce, displace, or defer Chugach’s use of gas supplied by ARCO under the agreement, unless Chugach obtains ARCO’s consent.

There are exceptions to this prohibition. Chugach can purchase electricity from:
   a) a utility that relies on gas purchased from ARCO;
   b) PURPA resources;
   c) conservation or load management efforts;
   d) renewable (solar, wind, hydro, geothermal, biomass) resources

The upshot is that the contract is *not* “take or pay” in the usual sense. Rather, it locks Chugach into the Beluga providers for meeting 60 percent of its “normal” needs at the Beluga generation station (up to deliverability limits of the Contract).

There are provisions in the contract that seem to try to “lock in” current levels of Beluga Plant use. Chugach is prohibited from making new purchases of electricity generated by fossil fuels (besides the aforementioned allowed purchases). And while this Agreement expressly reserves Chugach the right to dispatch its generators in the most efficient and safe manner, it prohibits Chugach from operating its system for the “principal” economic purpose of displacing gas supplied by the Beluga Field producers.

iii) *Producer deliverability limits*

ARCO’s daily deliverability limits for New Beluga Gas during Period #2 are:

1) \(1.39 \times \left(\frac{\text{Chugach’s Projected Take}}{365}\right)\) but not to exceed 22,000 Mcf/day;

2) \(1.55 \times \left(\frac{\text{Chugach’s Projected Take}}{365}\right)\)
   if Chugach’s waste heat recovery unit (Beluga #8) is not in continuous operation.
The factors 1.39 and 1.55 would seem to capture the degree to which ARCO is obligated to respond to Chugach’s possible “load profile”.

iv) **Price**

1) The Contract Price for Period #2 gas is determined by the following formula:

\[
\text{Contract Price} = A \times 1.35 \times \left[ \frac{(\text{Reference Natural Gas} - 84.54 \ \text{¢/Mcf})/84.54 + (\text{Reference Fuel Oil} - 74.93 \ \text{¢/Gallon})/74.93 + (\text{Reference Crude Oil} - $17.08/\text{Bbl})/17.08}{3} \right]
\]

where A equals 0.88 for Philips and ML&P and equals 1.10 for Chevron.


2) Contract Prices in a given quarter may not change more than the Adjusted Price Limit (APL).

   a) The APL is calculated every two years;

   b) The APL is the greater of

   - 2 percent

   - (Percentage change in Contract Price for previous two years)/8

However, Chugach has the right to waive the price limitation mechanism. It has generally exercised that right and considers the provision unused and nonfunctional.

3) Were the APL used, then price adjustments would be trued-up to “correct” for past limits that the APL has imposed, so long as true-ups do not cause the APL to be exceeded. However, if after two years true-ups have not exhausted the balance of the account created by prices that exceed the APL, then the entire amount of the remaining accrued price adjustment would be applied to produce an actual price adjustment.

   The consequences of possible semi-annual rate shocks have lead Chugach to abandon application of the APL.

4) **The Actual Price** that Chugach pays is the Contract Price plus any severance or ad valorem tax.
C) **Period #3 Volume** is a total volume of 120 Bcf (40 per producer) in addition to Periods #1 and #2 volumes.

i) Period #3 begins after Period #2 gas is used up, or on 1/1/2014.

ii) **Buyer and Seller Obligations**

While the volume of Period #3 Gas has been reserved, the terms and conditions for sale thereof have been left for future negotiations. (The contract states that such terms may need agency approval.)

Both parties can readily avoid any obligation either to purchase or to sell Period #3 gas:

- ARCO is relieved of obligation to provide Period #3 gas to Chugach if: (a) ARCO receives a competing offer to buy such gas from another party; (b) ARCO notifies Chugach of the offer; and (c) Chugach and ARCO do not agree within 90 days to mutually acceptable terms.

- Both ARCO or Chugach are released from obligations concerning Period #3 gas upon the earlier of: (a) Chugach consuming 135 Bcf (45 Bcf per producer) of Period #2 gas, (b) December 31, 2008; provided that (a) the two parties have not previously agreed to terms, and (b) at the request of either party in the 12 months previous the two parties have met and negotiated in good faith to try to reach mutually acceptable terms and conditions.

If obligations concerning Period #3 volumes are released because the “expiration date” in the previous paragraph has been triggered, and if Chugach contracts with a third party for new gas supplies beyond Period #2 volumes, then ARCO has a right of first refusal to meet contract terms.

D) **Replacement Gas Volume** is gas that Chugach has contracted from Marathon but which Marathon cannot deliver (either because of supply or pipeline constraints).

i) **Deliverability**

Each of the Beluga Field Producers is entitled to supply 1/3 of Chugach’s need for replacement gas.

ii) **Price**

Replacement Gas will be priced the same as under the rest of the Basic Agreement so long as the volume does not exceed what the Producers committed under the agreement. If the volume needed cumulatively exceeds the volume of
Contract Gas, then the price will be 125 percent of the Contract Price for Period #2 Gas.

II. Supplemental Gas Agreement (APUC approved 11/8/91)

1) “Supplemental Gas” is Gas in excess of volumes delivered under the Basic Agreement i.e. above 60,000 Mcf in any given day.

2) Chugach’s need for gas in excess of 60,000 Mcf must be purchased under the Supplemental Gas agreement. The exception is that Chugach may buy gas from Marathon for the sole purpose of providing nonfirm energy to GVEA.

3) Supplemental Gas Prices:
   a) Base price for Supplemental Gas is 13.6364 percent more than the value of Period #2 Gas in the Basic Agreement;
   b) in addition, Chugach pays full amount of Taxes;
   c) buyer pays excess royalties caused by price of Supplemental Gas exceeding the Basic Price (note that Basic Price gas excludes royalties).

4) Either party may terminate the agreement on 60 days’ notice, except that notice may only be given between March and June.
Chapter 3. Chugach and Marathon Contract

Overview
Marathon supplies gas to four different Chugach facilities: Bernice Lake, International, Beluga and Nikiski. The basic agreement has been amended five times.

Term
The Agreement will continue until 12/31/2015, or until Marathon has fulfilled its delivery obligations (which ever is earlier).

Chugach Consumption Requirements
1) Chugach must buy gas to meet:
   a) total gas requirements at Bernice Lake;
   b) total gas requirements at International;
   c) 40 percent of Chugach’s total daily and total annual gas requirements at Beluga (other than for the GVEA Contract and any Incremental Sale);
   d) total gas requirements for the GVEA contract, supplied at the regular Marathon contract price.

2) Gas purchased by Chugach may be used in any of its facilities.

3) Chugach must not make new electric power purchase agreements that would displace, reduce, or defer Chugach’s use of gas supplied by Marathon, unless Chugach obtains Marathon’s consent. There are exceptions to this prohibition. Chugach can purchase electricity from:
   a) a utility that relies on gas purchased from Marathon;
   b) Renewable and PURPA resources;
Chugach may also engage in conservation or load management efforts.

4) If Chugach makes wholesale sales to another utility, and those sales displace gas that the other utility would have bought from Marathon to meet that utility’s own loads, then Chugach must purchase the displaced gas. The price for this displaced gas is the lower of the Annual Base Price or Limited Base Price under Section 10.2 of the Gas Purchase Agreement between Marathon and Alaska Pipeline Company (ENSTAR).

   The “no displacement” clause carves out an exception for sales to HEA through AEG&T; there is no exception to the “no displacement” clause for sales to MEA.
5) If the Beluga River Field producers cannot meet their Period #2 obligations, then:
   a) Chugach must first offer to purchase gas from Marathon;
   b) such purchases may come from Marathon’s Initial Commitment to Chugach, if available;
   c) Marathon may choose instead to sell new gas not covered by the Initial Commitment.

6) Gas is to be used only for electricity generation. No reselling of gas is allowed without Marathon’s consent.

Marathon Delivery Obligations

1) Marathon’s total obligation limit is:
   a) an Initial Commitment (gas that Marathon must sell to Chugach) of 215 Bcf
   b) a Contingent Commitment (gas that Marathon may elect to sell to Chugach, provided that Marathon makes a commitment to do so at least 10 years before the projected exhaustion of the Initial Commitment) the size of which is determined by Marathon.
   c) Incremental Commitments (those Commitments of at least 2 Bcf requested by Chugach and accepted as Incremental Commitments by Marathon within a 60-120 day window).

2) Marathon’s delivery obligation rate is:
   a) On Aggregate Basis 1.39 x (Annual Volume of Chugach’s projected needs at Bernice + Beluga)/365.
   b) Disaggregate Basis 60,000 Mcf/day at Beluga; 45,000 Mcf/day at Bernice.
   c) Sufficient to meet GVEA Needs Capacity that Chugach needs to displace GVEA’s North Pole facilities during November through February, provided that Marathon may reduce such deliverability obligations given 5 years’ written notice.

3) Gas must come from Marathon properties.

4) If Marathon’s Available Gas Reserves are insufficient to permit it to make deliveries under this contract and to meet its obligations to ENSTAR under its 5/1/88 agreement, then gas deliveries to Chugach may be reduced or terminated according to Marathon’s discretion.
Regulatory Commission of Alaska

Railbelt Contract Summary: Fuel, Wholesale Electric, and Transmission

Delivery
Gas must be delivered by Marathon to the outlet side of Marathon’s meters at Beluga, Bernice Lake, and International.

Price
1) Gas used for Chugach generation is priced as follows:
   a) The Base Price of gas will be:
      ($1.35) x
         \{(Reference Natural Gas - 84.54 ¢/Mcf)/84.54 +
         (Reference Fuel Oil - 74.93 ¢/Gallon)/74.93 +
         (Reference Crude Oil - $17.08/Bbl)/17.08\} / 3

   b) The actual (or “Adjusted”) Price that Chugach pays is the Base Price plus any severance or ad valorem tax. Such taxes are the same for gas used at Bernice Lake, International, and Nikiski; gas used at Beluga may be subject to different effective tax rates.

   c) Prices for gas used at Beluga, Bernice Lake, and Nikiski reflect final delivery.

   d) For gas delivered to the International plant, Chugach must pay ENSTAR an additional transportation fee of $.6311 per Mcf. The effective price of gas used at International is therefore higher than at Beluga or Bernice Lake. Transportation fees are reduced to $.3036 per Mcf if gas used at International generates electricity for nonfirm sales to GVEA; the lower rate reflects the fact that such transport may be interrupted by ENSTAR without penalty. A minimum monthly payment of $2,600 is due to ENSTAR if Chugach fails to make deliveries of at least 4120 Mcf. (Tariff approved in Letter Order L9300194, dated 3/23/1993, regarding TA74-4).

2) Gas sold as nonfirm energy to GVEA is priced at Base Price rates.

3) Replacement Gas (gas purchased from Marathon to meet shortfalls resulting from inability of Beluga River Field Producers to deliver) will be priced at 110 percent of the Adjusted Base Price.
Chapter 4. ML&P and Beluga Producer Contract

Overview

ML&P has “substantially similar” contracts with each of the Beluga Field Producers. Since ML&P purchased a 1/3 interest in the field from Shell, ML&P now effectively has a contract with itself; that arrangement is currently the subject of U-96-36. Nevertheless, because the contracts with the other producers are understood to be “substantially similar”, the terms of the Shell contract are reported here. Thus, while “Shell” appears in the following for ease of reference to the contract document, the reader is advised that the following contract description applies also to ML&P’s separate contracts with Phillips and Chevron.

Beluga Producer gas supply contracts with ML&P are not “take or pay”, but rather are “all requirements”.

Term

The contract expires on the earliest of the following:

a) the date on which ML&P receives 15 Bcf;
b) 12/31/2005;
c) when Shell stops producing from Beluga.

ML&P Obligations

a) ML&P agrees to obtain 1/3 of its gas supplies from each of the Beluga field producers. Note that this precludes ML&P from obtaining gas from Marathon (or any other non-Beluga producer), unless:

i) ML&P needs additional gas on a long-term basis in excess of applicable Deliverability Limits, then ML&P will first offer to purchase 1/3 of its additional requirements from Shell under the terms of this agreement. If Shell declines the offer, ML&P can go elsewhere; or

ii) ML&P needs additional gas for off-system interruptible power sales, then ML&P will first offer to purchase 1/3 of its additional requirements from Shell under a separate interruptible supply contract on terms as favorable as any that exist between Chugach and Shell. If Shell declines the offer, ML&P can go elsewhere.

b) ML&P will not enter into any power purchase agreement greater than 60,000,000 kWh/year unless ML&P first obtains Shell’s written consent, excepting:

i) a utility that relies on gas purchased from Shell;
ii) renewable resources;
iii) conservation or load management efforts.
Should ML&P pursue under either “i” or “ii”, it must release its claim on gas displaced.

Delivery
Delivery will be at the outlet side of Shell’s meters at the Beluga River Field. Thus, ML&P must contract with ENSTAR to bring the gas to Plants 1 and 2 in Anchorage.

Price
a) The Contract Price is:

\[
\text{Contract Price ($/Mcf)} = 1.50 \times \frac{\text{Light Sweet Crude Oil Futures for the quarter ending } 9/30}{18.00} + \text{Accrued Price Adjustment}
\]

where the price of Light Sweet Crude is determined by the daily average settle prices reported in the Wall Street Journal for the quarter ending September 30 of the year prior to the year for which the Contract Price is calculated.

The Accrued Price Adjustment is described below.

b) The Contract Price is limited in its rate of change. This limitation is what produces the Accrued Price Adjustment.

i) The maximum change in the Contract price from one calendar year to the next will be 20 percent;

ii) limits in price changes will be added to an Accrued Price Bank;

iii) the Accrued Price Adjustment is the size of the Accrued Price Bank divided by the remaining volume of gas projected to be purchased during the remainder of the contract, but is limited by the 20 percent maximal change rule in (i).

c) The Total Price of gas is the Contract Price plus severance, production, and ad valorem taxes paid by Shell.

Shell Deliverability Obligations

I. Total Volume
Shell is obligated to deliver 1/3 of 45 Bcf over the life of the contract, except that portions of gas not taken by ML&P by specific dates are released back to Shell.
II. Daily Volumes

a) Shell’s normal daily delivery obligation is:

\[ D \text{ (Mcf/day)} = 1.40 \times \frac{V_a}{365} \]

such that:

\[ D < \frac{1}{3} \text{ of 40,000 Mcf/day through 12/31/2000;} \]
\[ D < \frac{1}{3} \text{ of 44,000 Mcf/day from 1/1/2001 through termination date;} \]
\[ V_a \text{ is the total annual volume of ML&P’s projected take from Shell.} \]

Note that the idea here is to limit the degree to which ML&P’s “load profile” can vary.

b) If:

i) ML&P’s Unit #6 (waste heat recovery) is down for more than 4 hours, or
ii) ML&P wishes to make economy energy sale in excess of Deliverability Limits, or
iii) cold weather or other exigency causes ML&P’s total gas requirements to increase significantly, then Shell may increase delivery to:

\[ D \text{ (Mcf/day)} = 1.55 \times \frac{V_a}{365} \]

c) If Shell cannot meet ML&P’s delivery needs, then ML&P can go elsewhere for gas.
Chapter 5. AEG&T and ANP Contract

The parties to this contract have requested that its terms be kept confidential. The terms cannot be described until the Commission rules on this request.

That said, Unocal may supply natural gas to AEG&T for use in the Nikiski plant in exchange for steam heat generated by the plant. AEG&T in turn may receive compensation from Chugach for a portion of this gas. See the Nikiski Dispatch Agreement (electricity) between AEG&T/HEA and Chugach for details.
Chapter 6. Coal Contract Between GVEA and Usibelli Mines

Overview
This contract governs the terms under which GVEA buys coal for its Healy I plant from Usibelli Mining Company (UCM). The contract is “take or pay”; if GVEA runs its Healy I plant too little to consume all of the coal contracted for, it must nevertheless pay UCM for the coal contracted. The contract has not been approved by the Commission. The Commission came by a copy of this contract as supporting information for GVEA’s COPA filing in TA109-13.

Term
The agreement runs from 01/01/1994 through 12/31/2007.

Delivery
Under the contract terms, prices include delivery by UCM to the Healy I generating plant at Healy, Alaska.

GVEA Obligations
GVEA must take 2,100,000 million Btu of coal in each year of the contract. GVEA must pay UCM for any coal not taken. This amount may be reduced to 1,600,000 million Btu if GVEA is meeting the minimum requirements of the Agreement for Purchase and Sale of Coal for Healy Clean Coal Project.

UCM Obligations
1) UCM may deliver two types of coal to the Healy I plant, Run of Mine and Waste Coal.

Run of Mine
• Monthly average Btu content of at least 7,800 Btu, as received.
• A Run of Mine delivery may be rejected if the heat content is less than 7,600 Btu.

Waste Coal
• Waste Coal will have a monthly average Btu content of at least 6,100 Btu, as received.
• A Waste Coal delivery may be rejected if the heat content is less than 5,800 Btu.
No waste coal will be “assumed” to be delivered unless GVEA has requested that waste coal be delivered.

2) UCM will, at GVEA’s request, remove ash remaining after the combustion process.

Price

Run of Mine Coal

1) The Base Price for Run of Mine Coal is $22 per ton (starting on 1/1/94).

2) If Run of Mine coal has an average monthly heat content of less than 7,800 Btu per pound, then the price will drop 2 percent for each 100 Btu/lb in deficiency. If Run of Mine coal has an average monthly heat content of greater than 7,800 Btu per pound, then the price will increase 2 percent for each 100 Btu/lb in excess.

Waste Coal

1) The Base Price for Waste Coal is $8 per ton (starting on 1/1/94).

2) If Waste Coal has an average monthly heat content of less than 6,100 Btu per pound, then in effect the amount of Run of Mine coal, calculated on a monthly average, will decrease; if the average monthly heat content of Waste Coal greater than 6,100 Btu per pound, then the amount of Run of Mine coal effectively decreases. That said,

Ash Removal

The base price that GVEA pays UCM for ash removal is $5 per ton.

Price Escalation

• Prices change 45 percent of the changes in the Bureau of Labor Statistics’ Producer Price Index for Industrial Commodities. Price changes that result from Index changes are adjusted with a six month lag; thus the January index only effects prices on July 1.

• In addition, prices reflect 45 percent of changes to labor costs that result from collective bargaining. These changes go into effect at the same time as the labor contract.

• Purchase, delivery, and hauling prices will be adjusted for changes in UCM’s costs of operation that result from changes in federal, state, or local laws. Such costs of operation include but are not limited to changes in royalties, reclamation, black lung, and taxes to be paid (except income taxes).
On 1/1/2000, a special escalation was made in the price; the new price for Run of Mine coal is calculated as if all escalations from 1/1/94 through 12/31/99 had been applied to a base price of $23.24 per ton, instead of $22 per ton.
Chapter 7. Coal Contract Between Aurora Energy and Usibelli Mines

Overview
This contract governs the terms under which Aurora Energy LLC buys coal for its Chena facility from Usibelli Mining Company (UCM). The contract is “take or pay”; if Aurora runs its Chena I plant too little to consume all of the coal contracted for, it must nevertheless pay UCM for the coal contracted. The contract has not been approved by the Commission. The Commission came by a copy of this contract as supporting information for Aurora Energy’s petition, in U-97-139/U-97-44, to deregulate its district heating operations.

Term
The agreement runs from 01/01/1998 through 01/31/2018.

Delivery
Contract prices do not include delivery; they are tipple prices.

Aurora Obligations
Aurora Energy must take 120,000 tons of coal in each year of the contract. Aurora must pay UCM for any coal not taken. Aurora may purchase additional coal as needed.

UCM Obligations
UCM will provide coal ordered to satisfy the request of the Buyer’s power plant. In addition, UCM will meet various coal quality standards. These include:

- The maximum moisture content of the coal will not exceed 26 percent.
- The maximum ash content of the coal will not exceed 12 percent by weight, as received.
- Monthly average Btu content will be at least 7,800 Btu, as received.

Price
- The Base Price for Coal is $23.50 per ton.
- If delivered coal has an average monthly heat content of less than 7,800 Btu per pound, then the price will drop $.40 per ton for each 100 Btu/lb in deficiency. If delivered coal has an average monthly heat content of greater
than 7,800 Btu per pound, then the price will increase $.40 per ton for each
100 Btu/lb in excess.

- Purchase, delivery, and hauling prices will be adjusted for changes in UCM’s
cost of operation that result from changes in federal, state, or local laws. Such
costs of operation include but are not limited to changes in royalties,
reclamation, black lung, and taxes to be paid (except income taxes).
Chapter 8. Contracts Between GVEA and Williams

Overview

GVEA’s Zehnder and North Pole facilities burn high atmospheric gasoil to generate electricity. This fuel is provided by Williams. The Commission does not know the terms governing these transactions.
Chapter 9. Energy Contracts (Blank)
Chapter 10. MEA and AEG&T Wholesale Power Contract

Overview

Under the terms of this contract AEG&T agrees to supply all electric power and energy needed by MEA. AEG&T may use purchased power to meet this obligation. Indeed, under the terms of the MEA/AEG&T and Chugach wholesale power contract (see below), AEG&T purchases substantially all of MEA’s power and energy requirements from Chugach.

Term

The agreement will remain in effect until December 31, 2025, and thereafter until terminated by either party given at least six month’s notice.

MEA Obligations

MEA must purchase all of its power and energy needs from AEG&T.

AEG&T Obligations

1) AEG&T is responsible for the installation and maintenance of necessary substation equipment at the points of connection.
2) AEG&T will read MEA’s meters monthly.
3) AEG&T will test and calibrate meters annually.

Delivery

The points of delivery are: Pt. MacKenzie; Walter Teeland; Reed; Justine Parks; Walter Pippel; Rusty Dow; Camp (Eklutna); Stevens.

Rates

- All fixed and variable costs will be paid by MEA, each month. Rates charged by AEG&T is computed on the basis that revenues will be equal to the sum of all AEG&T’s costs of purchasing, producing, and transmitting power for MEA, plus an amount which will provide TIER of at least 1.05.
- Costs incurred by AEG&T that benefit more than one member will be allocated among the members in proportion to the benefits to each member as determined by the AEG&T Board of Directors.
Chapter 11. MEA/AEG&T and Chugach Contract

Overview
Under the Agreement, Chugach sells to AEG&T power to supply all or a portion of MEA’s requirements. AEG&T then sells to MEA this power from Chugach. For administrative convenience, MEA can and does pay Chugach directly for the undisputed portion of the AEG&T/MEA bill from Chugach to AEG&T.

Chugach (through AEG&T) is presently an all requirements supplier for MEA’s needs. MEA can have Chugach supply less than all of MEA’s requirements, given adequate notice, but the prices that MEA pays will then be less favorable.

Term
The Agreement runs through December 31, 2014.

MEA/AEG&T Obligations
1) MEA must purchase all of its power and energy needs from Chugach.
2) MEA can move to a “net requirements” or “take or pay” relationship with Chugach, given sufficient notice. The periods of notice for conversion to either run only after Commission approval of the change.
3) MEA may not resell Chugach power.

MEA Rights
1) If Chugach is not made part of AEG&T, then MEA and AEG&T will be afforded an opportunity to participate in Chugach’s long-range planning process and to be heard by Chugach’s board with regard to long-range plans.
2) MEA enjoys a “Most Favored Nation” clause for any contract in which Chugach offers to supply all or the major portion of firm power needs of any other utility (other than HEA or SES) for at least five years. At present no contracts meet these standards.

Delivery
AEG&T will deliver energy and power to the following substations: Pt. MacKenzie; Walter Teeland; Reed; Justin Parks; Walter Pippel; Rusty Dow; Camp (Eklutna); Stevens.
Prices

I. All Requirements Supply

Under the “All Requirements” arrangement Chugach must plan to meet MEA’s load growth. All Requirements status obligates MEA to sell its Eklutna and Bradley Lake resources on a net-billed basis to Chugach. (See: Bradley Lake Contract Between Chugach and MEA/AEG&T for terms.)

Prices for All Requirements Service:

A. Demand charges are allocated to MEA such that:

The portion of Chugach’s wholesale revenue requirement to be paid by Chugach’s ratepayers and by AEG&T/MEA . . . is divided fairly and appropriately between Chugach and AEG&T/MEA so that the cost of power to AEG&T/MEA under this Agreement and the effective internal wholesale cost to Chugach for its own power supply are as nearly as possible equivalent.

In other words, “wholesale rates” for Chugach retail should be set on the same basis as wholesale rates to MEA.

Power supply costs are Chugach’s full Generation and Transmission system costs, net revenues from wholesale transactions to third parties. Costs include standard ratemaking costs plus margin -- “a return element on wholesale power sales represented by an excess of revenues over all other costs included in Power Supply Costs.”

B) Energy charges are, again, equal to Chugach’s embedded energy costs.

II. Net Requirements Service

If they provide Chugach at least five years’ notice, AEG&T/MEA may use some of their own resources to meet MEA retail load. If such resources fail to deliver the needed capacity/energy, Chugach can either i) not supply MEA’s additional load; or ii) treat additional MEA load as an unauthorized increase. Unauthorized increases in load are subject to a special “distinctly higher” rate.

Prices for Net Requirements Service:

A) Demand charges are allocated to MEA according to the greatest of:

a) MEA’s contribution to Chugach’s coincident system peak for that year;
b) MEA’s contribution to Chugach’s coincident system peak in “any” previous year. The historical maximum MEA contribution to Chugach’s coincident system peak will only be recalculated when rates are being changed;
c) 85.8 MW.

B) **Energy charges** are calculated in terms of the lesser of:
   a) MEA’s total system energy requirements for that year; or
   b) 95 percent of MEA’s Allocated Demand (see above) times Chugach’s total system Load factor,

III. *Take or Pay Service*

   If AEG&T/MEA provide Chugach with seven years’ notice, they may move to “take or pay” service. In that instance:

   A) **Capacity charges** will be based on the highest of:
       a) 100 MW, or
       b) MEA’s highest Allocated Demand.

   B) **Energy charges** will be:
       a) 54.22 percent of the Contract Capacity; or,
       b) if MEA’s total system requirement is less, then MEA’s total system requirements; or,
       c) if MEA uses its/AEG&T’s own resources and purchases less than 54.22 percent Capacity factor, then MEA will pay Chugach for the greater of actual energy used or energy reflected by a 45.66 percent load factor, *plus* (for energy not taken):

       75 percent of energy rates for kWh between 45.66 - 48.52 percent load factor;
       50 percent of energy rates for kWh between 48.52 - 51.37 percent load factor;
       25 percent of energy rates for kWh between 51.37 - 54.22 percent load factor.

   **PURPA Resources**

   Unless MEA/AEG&T has moved to net requirements or take or pay service, they shall use their best efforts to persuade potential PURPA resources to deal directly with Chugach. If the PURPA developers sell directly to MEA, then MEA must
sell all of the acquired resources to Chugach (unless MEA moves to net billing or
take or pay service).

That said, the contract does provide for a number of exceptions of MEA
planned purchases under PURPA, with a deadline for contract execution with
would-be PURPA-power developers of June 30, 1989. Only the Enerdyne
PURPA purchase took place (approved in TA 156-18).
Chapter 12. MEA and Enerdyne

Overview

This MEA/AEG&T and Chugach Wholesale Power Agreement acknowledges possible MEA planned purchases under PURPA, with a deadline of June 30, 1989, for contract execution with would-be PURPA-power developers. Only the Enerdyne PURPA purchase took place. The Enerdyne hydroelectric facility is located on McRoberts Creek, near Palmer.

Term

The contract was approved by the Commission on February 5, 1991. It remains in effect fifteen years after being approved until the parties mutually agree to terminate.

Quantity

The Enerdyne project has a capacity of less than 100 kW. All energy is sold to MEA.

Delivery

Energy is metered and delivered at MEA’s distribution system located on Smith Road near Palmer.

Price

- For the first ten years of operation, MEA pays $.04 per kWh, delivered.
- The price during the subsequent five years is based on the average kWh cost of power purchased or generated by MEA during the previous year.
Chapter 13. MEA/AEG&T and Chugach (Bradley Lake & Eklutna)

Overview

The agreements give Chugach rights to schedule the generation of, and to receive from MEA/AEG&T, any power that is produced by Bradley Lake and Eklutna hydropower projects and to which MEA/AEG&T are entitled. In exchange, Chugach will reimburse MEA/AEG&T for all the costs that they actually incur for their share of the Bradley Lake project. This reimbursement will function as a credit against MEA/AEG&T’s energy and power costs associated with their requirements agreement with Chugach.

The contracts is called “net billing” agreements as MEA/AEG&T are billed “net” of their Bradley Lake and Eklutna expenses. However, the term “net billing” is often used to indicate arrangements in which a smaller entity receives credit for the energy that it generates at a rate equivalent to which it is billed. In this case MEA/AEG&T do not receive credit for their share of the energy and power from Bradley Lake and Eklutna at a rate that is equal to the average embedded cost of Chugach’s system.

Term

The agreements last as long as Chugach remains an all requirements supplier for MEA. Its terms are essentially the same as those of the net billing agreement between Chugach and SES.
Chapter 14. SES and Chugach Contract

Term

The Agreement became effective on 3/1/98. While the original contract between the parties was to end on 1/31/2008, in U-98-70(6) the Commission ordered that the Agreement will expire on 9/11/2001.

Overview

This Agreement operates in conjunction with the Bradley Lake Hydroelectric Project Agreement and the 1993 Alaska Intertie Agreement. The Bradley Lake Agreement between Chugach and SES is a net billing agreement whereby SES is credited for all of its Bradley Lake costs against its Chugach bills.

Under the Agreement Chugach is an all requirements supplier for SES. Chugach has the right to interrupt SES load.

Delivery

Chugach will deliver all power to Daves Creek Substation and near the Lawing Substation.

Chugach Obligations

1) Chugach is obligated to supply all of the power and energy necessary for SES needs, except that Chugach may interrupt service up to 12 times per year for a total of 72 hours.

2) Although not part of the Contract, in a responsive filing for U-98-70 Chugach addressed staff concerns and stated that during an interruption Chugach would: permit ML&P to supply power; provide access to its transmission system on a nondiscriminatory basis; and charge wheeling fees that reflect fully allocated costs.

SES Obligations

1) If Chugach provides two hours’ notice, then SES must meet its demand from its own generating resources.

2) Aside from when it is interrupted, SES must purchase all of its energy and power requirements from Chugach.

3) SES must maintain the capability of meeting all of its system requirements.

4) SES may not resell electric power that it purchases from Chugach.
5) SES must supply its own VAR at the point of delivery.

Rates
Reflect average embedded costs of Chugach’s entire generation and transmission system and average monthly prices for fuel and purchased power.

Demand
- Demand in each month is determined in reference to SES’s actual peak demand on the Chugach system for that month.
- SES receives a special “Available Capacity Rate” for Chugach’s permission to shed that load. Thus, SES’s allocated demand charge is calculated by reducing SES’s contribution to the overall system peak by 1/3, and then divided by the sum of SES’s actual peak demand on the Chugach system in each month of the test year.
- Chugach receives a monthly customer charge that reflects the number of delivery meters. The contract sets charges at $150 per SES meter per month.

Energy
Energy charges should reflect actual fuel and purchased power expenses. When Chugach receives revenue from energy sales margins and wheeling, energy charges are reduced. However, because the power SES receives is in effect considered only “2/3 firm” (see “demand charges”, above) it receives only 2/3 of the benefits to which it would otherwise have been entitled.

Rates for Excessive Interruptions
If Chugach interrupts SES for more than 72 hours, then Chugach will pay SES the following rate for electricity that SES generates from its own resources:

\[
$0.0658 \text{ kWh (labor and maintenance)} + \frac{0.0616 \times \text{(per gallon fuel cost)}}{1.06}
\]

Penalty for Failure to Interrupt
If SES fails to interrupt when given adequate (two-hour) notice by Chugach, SES must pay penalties as follows:
- If SES fails to interrupt at the requested time, it pays Chugach $5,000.
• If SES fails to interrupt within one hour of the time requested, it pays Chugach a further $2,500.

• If SES fails to interrupt within one-half hour of the time requested, it pays Chugach an additional $2,500.

• Thereafter, SES will pay $1,000 for each additional ½ hour during it does not interrupt service.
Chapter 15. SES and Chugach Contract (Bradley Lake)

Overview

The agreement gives Chugach rights to schedule the generation of and to receive from SES any power that is produced by Bradley Lake and to which SES is entitled. In exchange, Chugach will reimburse SES for all of the costs that it actually incurs for Bradley Lake. This reimbursement will function as a credit against SES’s energy and power costs associated with its wholesale power agreement with Chugach.

The contract is called a “net billing” agreement as SES is billed “net” of its Bradley Lake expenses. However, the term “net billing” is often used to indicate arrangements in which a smaller entity receives credit for the energy that it generates at a rate equivalent to which it is billed. In this case SES does not receive credit for its share of the kWh and energy from Bradley Lake at a rate that is equal to the average embedded cost of Chugach’s system.

Term

The term of this agreement extends to the end of the term of the Wholesale Power Agreement between Chugach and SES, or subsequent wholesale power agreements between the parties. Its terms are essentially the same as those of the net billing agreement between Chugach and AEG&T/MEA.
Chapter 16. HEA and AEG&T Wholesale Power Contract

Overview

Under the terms of this contract AEG&T agrees to supply all electric power and energy needed by HEA. AEG&T may use purchased power to meet this obligation. Under the terms of the HEA/AEG&T and Chugach wholesale power contract (see below), AEG&T annually purchases from Chugach a minimum of 73 MW of power and 350 GWh of electricity for HEA.

The Contract was amended by the Amended Wholesale Power Contract dated April 11, 2000 analysis of that filing is pending. Only terms of the original contract are reported here.

Term

The agreement will remain in effect until December 31, 2025, and thereafter until terminated by either party given at least six month’s notice.

HEA Obligations

HEA must purchase all of its power and energy needs from AEG&T.

AEG&T Obligations

1) AEG&T is responsible for the installation and maintenance of necessary substation equipment at the points of connection.
2) AEG&T will read HEA’s meters monthly.
3) AEG&T will test and calibrate meters annually.

Delivery

The points of delivery are the Soldotna and Bernice Lake substations.

Rates

- All fixed and variable costs will be paid by HEA. Rates charged by AEG&T are computed so that revenues will equal the sum of all AEG&T’s costs of providing power for HEA, plus a TIER of at least 1.05.
- HEA will be credited for sales to other utilities from the Nikiski Unit.
• Costs incurred by AEG&T that benefit more than one member will be allocated among the members in proportion to the benefits to each member as determined by the AEG&T Board of Directors.
Chapter 17. HEA/AEG&T and Chugach Contract

Overview

The Contract is a “partial requirements” contract for 73 MW of capacity per year. HEA is entitled to purchase all the energy associated with the 73 MW obligation, but must purchase the 73 MW capacity and a minimum of 350 GWh of energy per year. HEA may not resell energy it purchases from Chugach. Under the Agreement, Chugach sells to AEG&T power to supply HEA’s requirements. AEG&T then sells to HEA this power from Chugach.

Term

The Agreement runs until January 1, 2014.

Chugach Obligations

1) Chugach is obligated to meet 73 MW of HEA’s demand.

- Chugach may reduce AEG&T/HEA’s capacity entitlement by 80 percent of the nominal ratings of Bernice Lake Units #1 through #4 should Chugach remove any of these from service. Chugach must provide HEA/AEG&T written notice three years in advance of doing so. According to the Black and Veatch Study, Unit #1 has been removed from service. The terms of the Nikiski Dispatch and Power Agreement indicate that Chugach has not reduced its capacity obligations to HEA/AEG&T, however.

- Should any of Chugach’s other generating units be permanently removed from service, Chugach may reduce HEA/AEG&T’s Contract Capacity by 10 percent of the nominal rating of those units. Again, Chugach must provide HEA/AEG&T written notice three years in advance of doing so.

2) Chugach is obligated to provide all of HEA/AEG&T’s energy needs whenever its demand is less than 73MW.

- If HEA/AEG&T’s Contract Capacity changes (see above), then Chugach’s obligation to provide energy to HEA/AEG&T will be calculated by multiplying the modified Contract Capacity by 55 percent and by 8760 to equal annual MWh.

3) The points at which electric power and energy are measured are the Soldotna and Bernice Lake Substations and (as amended by the Nikiski Power and Dispatch Agreement) at the Nikiski Plant.
HEA/AEG&T Obligations

1) Each year, HEA/AEG&T is to take or pay for 73 MW of capacity from Chugach, unless its Contract Capacity is reduced.

2) HEA/AEG&T is obligated to take or pay Chugach annually for 350 GWh, unless HEA/AEG&T’s Contract Capacity is reduced. If the Contract Capacity is reduced, then the minimum is 8760 x 55 percent of the revised Contract Capacity.

3) If HEA/AEG&T’s capacity requirements exceed its contract capacity, if HEA/AEG&T requests Chugach to meet those requirements, and if Chugach chooses to do so, then HEA/AEG&T “shall pay Chugach a premium for the excess capacity and associated energy” (Section 5.4). The size of this premium is not described.

Delivery

The Points of Delivery for power that is ultimately supplied by Chugach are the Bernice Lake and Soldotna Substations and the Nikiski Power Plant. (Note that until the recent Nikiski Agreement delivery was made to Bernice Lake Power Plant.)

Rates

The contract has very little to say about rates for power and energy. It only provides that:

1) Rates will be determined by the Commission in accordance with applicable statutes, regulations and procedures;

2) Rates will be based upon the revenue requirements for those generation and transmission facilities listed in the agreement -- the better part of Chugach’s generation, transmission, and bulk distribution system;

3) Rates will include a TIER component based on required TIER for Chugach’s debt on its system.

Under Commission order U-87-35(9), HEA/AEG&T’ demand charges (unlike MEA’s) are not based on coincident system peak. This is because HEA/AEG&T

5 The Bradley Lake Transmission Line Sharing Agreement between HEA, Chugach, ML&P, and GVEA carves out an exception. That Agreement prevents Chugach from charging HEA for Chugach’s leased portion of the Bradley Lake Transmission line (which HEA/AEG&T constructed and owns).
purchases capacity on a partial requirements basis. The demand allocator is based
upon the proportion that the Contract Capacity (73 MW) plus the reserves
necessary to support that capacity (30 percent, or 21.9 MW) bears to the total
capacity of the generation listed in the contract (approximately 536 MW).
Chapter 18. Nikiski Dispatch Agreement Between HEA/AEG&T and Chugach

Overview

AEG&T owns and HEA operates the Nikiski Cogeneration Unit, while Chugach dispatches it.

Although AEG&T owns the Unit, its contractual obligations mean that it does not own all electricity generated. AEG&T is required to take or pay for annually, on behalf of HEA:

i) HEA’s share of Bradley Lake (43.8 GWh/year)
ii) Chugach purchased electricity (350 GWh/year)(75MW)

AEG&T is required to purchase from Chugach substantially all of HEA’s additional energy requirements up to 320 GWh. Hence, rights to the electricity generated by the Unit, which will be base-load operated, are shared between AEG&T/HEA and Chugach. The specific shares to which each entity is entitled change according to HEA’s demand needs. Details are outlined, below.

Term

The Nikiski Cogeneration Plant System Use and Dispatch Agreement expires 01/01/2014, along with the AEG&T - HEA - Chugach Tripartite Agreement.

Rights Enjoyed by Chugach

1) Chugach receives rights to the first 350 GWh of electricity generated by the Nikiski Unit, unless HEA’s demand exceeds 73 MW.

2) HEA must purchase 320 GWh from Chugach for energy needs in excess of its 350 GWh obligation to Chugach before HEA can purchase from other sources (other than its Bradley Lake share). However, this incremental obligation excludes energy needed by HEA when its demand exceeds 73 MW. This circumscribes HEA’s obligations to purchase energy only from Chugach.

3) Chugach can use energy generated by the Unit, in excess of HEA/AEG&T priority use, for Chugach’s own systemwide needs including meeting HEA’s loads when demand is less than 73 MW.

4) When HEA uses the Unit to meet its capacity needs when demand exceeds 73 MW, Chugach is allocated all spin not needed by AEG&T. If Chugach does not acquire the spin, AEG&T may sell the spin to others.
Rights Enjoyed by HEA

1) When HEA’s demand exceeds 73 MW, it is entitled to first crack at Nikiski Unit power. Under such circumstances it must “pay” for all gas and O&M costs.

2) Chugach must compensate AEG&T for fuel that AEG&T provides to the unit, plus a certain portion of the unit’s O&M.

   i) AEG&T is entitled to provide fuel used at the unit according to:

      a) the ratio of energy that HEA/AEG&T purchases from Chugach in excess of 350 GWh to the total amount of energy generated by the Unit (save for energy taken by HEA when its demand exceeds 73 MW);

      multiplied by

      b) the total amount of fuel used at the unit (save for energy taken by HEA when its demand exceeds 73 MW).

   ii) Chugach is responsible for paying O&M on MWh generated by the Unit when HEA’s demand is less than 73 MW. Such electricity is considered Chugach system energy.

Prices/Costs

Rights to the electricity generated at Nikiski change depending upon contractual obligations and HEA system loads. The fuel available changes depending upon gas contractual obligations and who has rights to the electricity generated. This generates three different price/cost profiles.

All energy purchased by HEA/AEG&T from Chugach is purchased at rates set by the Commission under the Chugach-AEG&T-HEA TriPartite Agreement. That agreement stipulates only that rates will be based on a revenue requirement, determined by the Commission, that reflects the embedded costs of Chugach’s system as listed in the Agreement. The Chugach Wholesale Power Agreement is silent on allocation of demand versus energy costs and on how demand charges are determined; the Commission is the final arbiter as to that issue.

Against HEA payments to Chugach for energy under the TriPartite Agreement, Chugach makes offsetting payments to HEA/AEG&T for O&M and a portion of the fuel used at the Unit.

The “price profiles” for electricity generated by the unit are as follows.
1) If HEA/AEG&T has purchased less than 350 GWh from Chugach, and when HEA/AEG&T’s demand is less than 73 MW, then the effective wholesale price of Nikiski energy to HEA/AEG&T is just the Chugach Wholesale Power Agreement price less Chugach payments for the Unit’s O&M.

   - O&M rates have a base price of $5/MWh. Beginning 1/1/99 this rate is adjusted yearly by a weighted average of 20 percent times the producer price index and 80 percent times the consumer price index.

2) If HEA/AEG&T has purchased at least 350 GWh from Chugach, but HEA/AEG&T’s demand is less than 73 MW, then the effective wholesale price of Nikiski energy to HEA/AEG&T is just the Chugach Wholesale Power Agreement price less Chugach payments for the Unit’s O&M and (at HEA’s discretion) for HEA-supplied fuel.

   - O&M rates are as above.
   - Chugach has the primary obligation to supply the fuel for the Unit.
     - AEG&T has the option to supply fuel, subject to the quantity limitation, above. Chugach must pay for all HEA-supplied fuel that is burned. The price will be set at the Chugach-Marathon contract price of Bernice Lake gas, until such gas is exhausted. After that, Chugach will pay fuel prices that are the highest of:

       a) Chugach’s average gas price, less transportation charges;
       b) Chugach’s average gas price at the Beluga facility, less transportation;
       c) Chugach’s cost of supplying fuel for HEA’s use.

   - If AEG&T chooses not to supply fuel, then it does not get paid by Chugach for same. In this instance AEG&T/HEA could conceivably market its gas to the highest bidder.

3) If HEA’s demand exceeds 73 MW, then AEG&T sells the unit’s output to HEA under the terms of the AEG&T/HEA wholesale power agreement. O&M costs will presumably be those approved by the Commission pursuant to AEG&T’s revenue requirement. At least a portion of the fuel used by AEG&T at the Nikiski Unit may be provided in kind by ANP in exchange for process steam generated by the unit. It is not clear how such in-kind gas will be priced.

4) For electricity generated by the unit that is not needed by AEG&T/HEA, and that Chugach takes for its systemwide needs, generating costs to Chugach equal the cost of gas plus O&M payments to AEG&T. The cost of gas, whether supplied by AEG&T or by Marathon, will equal the cost of Marathon-supplied gas to Bernice Lake.
Chapter 19. GVEA and Chugach Contract

Overview

The Contract covers sales of nonfirm energy from Chugach to GVEA. It consists of a Basic Agreement, the Tier II Agreement (dated 1/18/96), and the Amendatory Agreement No. 2 (dated 2/8/99). The Tier II Agreement, which allowed for “Tier II” sales of energy at a reduced rate, expired on 1/1/2001.

At present GVEA must purchase 2/3 of its first 450 GWh, and 4/5 of its subsequent, nonfirm energy needs from Chugach. Other sales take place on the “Spot Market”, and prices are subject to competitive bidding.

Term

The Basic Agreement and the Amendatory Agreement No. 2 expire 4/1/2009. Again, the Tier II Agreement, which allowed for “Tier II” energy sales, expired on 1/1/2001.

Delivery

Chugach shall bear the costs, including line losses, incurred in transmission of Nonfirm Energy over Chugach’s transmission system to the Teeland Substation. These costs need not show up in the contracted rate that Chugach charges, however. In U-86-11(8) the Commission ruled that Chugach need not charge itself for use of its transmission system when making economy energy sales. Hence, even though Chugach is responsible for picking up the O&M and line-loss costs (payable to HEA under the Bradley Lake Transmission Sharing Agreement) for wheeled Bradley Lake energy, these costs would not be explicit.

Chugach Obligations

1) Chugach will produce nonfirm energy with gas from Marathon, except insofar as Marathon deliveries are insufficient.

2) Chugach will operate its available generating capacity to follow GVEA’s load requirements for Nonfirm Energy.

3) Chugach must offer GVEA “first crack” at nonfirm energy that it produces from spinning reserves.

GVEA Obligations

GVEA’s purchases of nonfirm energy from Chugach have priority over GVEA’s purchases of nonfirm or economy energy from any other source.
1) Firm Power

GVEA has the right to purchase firm power from sources other than Chugach. However, this contract requires that such power have particular characteristics:

i) the capacity of a given machine is dedicated to sales to GVEA;
ii) this capacity is in excess of the owner’s generation or reserve needs;
iii) if ML&P supplies firm power, then Chugach will be provided with a ruling from the IRS or an opinion by ML&P’s bond counsel that the contract to do so is consistent with ML&P’s obligations under the tax code; and
iv) the firm power was secured as a result of a competitive bidding process and selected on the basis of lowest cost.

2) Economy Energy

GVEA must purchase 2/3 of the first 450,000,000 kWh of its nonfirm energy needs, and at least 80 percent of all subsequent nonfirm energy needs, from Chugach. If GVEA purchases less than this, it must make up the difference in the following year.

3) Spot Market Economy Energy

Nonfirm energy purchased outside of GVEA’s minimum required take of economy energy (outlined above) is defined as “Spot Market Economy Energy”.

Prices

Prices of nonfirm energy sold under the Nonfirm Agreement consist of gas cost, variable O&M, and a margin. Chugach bears the cost of line losses for GVEA sales, as well as transmission charges to the point of delivery at the Teeland Substation. Prices are determined as:

\[ \text{Price/kWh} = \text{Gas Price/Btu} \times \text{Heat Rate} + (\text{O&M})/\text{kWh} + \text{Margin}/\text{kWh} \]

A) The bulk of the cost is from gas. The base price for gas is determined by the Chugach-Marathon gas sales agreement, and is:

\[
\frac{\{(\text{Reference Natural Gas - 84.54 ¢/Mcf})/84.54 + (\text{Reference Fuel Oil - 74.93 ¢/Gallon})/74.93 + (\text{Reference Crude Oil - $17.08/Bbl})/17.08\}}{3}
\]
"Reference" prices for gas and fuel oil are published by the Bureau of Labor Statistics, and for crude oil are the Wall Street Journal “Settle” prices for monthly future’s contracts.

From time to time, Chugach has been able to arrange to obtain gas at a reduced price for a portion of its sales under this agreement. Reduced prices do not obtain at present.

B) The **Heat Rate** is the weighted average incremental heat rate of the generating units used to produce energy.

Nevertheless, the average daily heat rate is stipulated not to exceed a Ceiling Heat Rate of 11,000 Btu/kWh. The heat rate is also stipulated to not fall below a floor rate: When the actual rate is 9,000 Btu/kWh or less, then the floor heat rate is 9,000 Btu/kWh less one-half the difference between 9,000 Btu/kWh and the actual rate. The floor heat rate can be relaxed, however: if more than 50 percent of GVEA’s purchases are generated at heat rates lower than the floor rate, then purchases in excess of 50 percent will be priced according to the actual heat rates.

C) O&M is priced to exclude start-up costs. It is:

1.6 mills * (GNP Price Deflator for October of the preceding year)/ (GNP Price Deflator for October of 1988.)

D) **Margin** is:

10 mills * (GNP Price Deflator for October of the preceding year)/ (GNP Price Deflator for October of 1992)

III. **Spot Market Sales**

These sales comprise up to 1/3 of GVEA’s purchases of the first 450,000,000 kWh, and 20 percent of amounts over that benchmark. Chugach can sell “at such price as Chugach determines”, so long as a supplier other than Chugach has offered sales of incremental generation from otherwise operating generation facilities in quantities sufficient to meet GVEA’s request for non-firm power.
Chapter 20. GVEA and Aurora Contract

Overview

Aurora Energy purchased the Chena plant in Fairbanks from the Fairbanks Municipal Utility System. Aurora sells three different “types” of contractual electricity to GVEA. Tier I and Tier II energy are so named in the Contract. Contract Section 3.6.1 refers to energy in addition to Tier I and Tier II. For consistency and record keeping purposes this is referred to as Tier III.

Term

The contract became effective on 12/11/1997. It expires 20 years after that date.

GVEA Obligations

1) GVEA is obliged to purchase 120,000 MWhs from Aurora on a take or pay basis. This is referred to as Tier I energy.

2) GVEA may purchase energy in excess of 120,000 MWh; this is deemed Tier II energy, if GVEA requests Aurora to supply the power and if Aurora can do so without incurring additional start-up costs.

3) GVEA may purchase energy from Chena 1, 2, or 3 at spot market prices as demand warrants.

4) GVEA and Aurora shall develop a dispatch protocol to allow to the full extent the flat operation of the Chena Facility within its physical capabilities.

Aurora Obligations

1) Aurora is required to make deliveries based upon a mutually agreed upon dispatch protocol.

   If the Chena plant is unable to produce output as originally predicted, then Aurora may request to increase the Facility’s operating level to make up for energy not delivered. If Tier I energy deliveries are not made up within 60 days, the amount of Tier I energy sold to GVEA will be reduced. The exception is that Aurora may reschedule such deliveries after 60 days if the cause of GVEA not taking Tier I energy is due to a failure in GVEA’s interconnection facilities.

2) Aurora must pay all GVEA’s O&M costs of interconnection.
GVEA Rights

1) GVEA may limit hourly deliveries of Tier I and Tier II energy to its needs in excess of the combined output of Healy I and Healy II plants, and GVEA’s portion of Bradley Lake power.

2) GVEA will have dispatch rights over the facility, including the right to dispatch VAR support.

3) If there is available capacity without having to start up a unit and if GVEA needs more electricity than provided for in the Dispatch Protocol, then it may request same from Aurora. Such energy will be sold as Tier II energy.

4) If GVEA needs more electricity than provided for in the Dispatch Protocol and if additional capacity is available contingent upon starting up an additional unit, then it may request same from Aurora. GVEA will pay start up and fuel costs, plus a premium of $.001 per kWh.

Aurora Rights

If Aurora provides twelve months’ notice that it will operate Chena solely as a cogeneration facility, then it may reduce the Tier I and Tier II electricity it supplies to GVEA. The amount of the reduction will be “mutually agreed upon”.

Rates

If Aurora fails to provide 120,000 MWhs of contracted Tier I energy for any other reason than force majeure, then GVEA will pay $.005 per kWh less for its Tier I energy in the following contract year.

Tier I Energy

- Until the Healy-Fairbanks 230 kV intertie line is operating and carrying power to GVEA:
  
  4.0 cents/kWh

- Once the Healy-Fairbanks 230 kV intertie is carrying such power:

  3.7 cents/kWh

This rate will remain in effect between eighteen and thirty months. After that, rates for Tier I energy will be adjusted annually by the percentage by which prices from GVEA’s other power sources change. Specifically:

- Price will change according to the average price per kWh paid by GVEA for all sources of purchased power (excluding purchases from Aurora) and the cost of fuel for GVEA self-generated power.
Tier II Energy

- Until the Healy-Fairbanks 230 kV intertie line is operating and carrying power to GVEA:
  2.6 cents/kWh
- Once the Healy-Fairbanks 230 intertie is carrying such power:
  Avoided cost, using specified computer routines for calculating that quantity.

Tier III Energy

- Section 3.6.1 of the contract states that the price “shall be as agreed in advance by the Parties”.
- Tier III Energy is not “economy spot market” energy, as defined in U-97-188 (6). Rather, the price will be determined as agreed in advance by the Parties.
Chapter 21. GVEA and AIDEA: Healy Contract

Overview

This contract governed the terms under which GVEA would pay for power generated by the Healy Clean Coal Project. Under its terms, the Contract terminates if the Project failed to be in Commercial Operation by 1/1/2000. This transpired. There are several outstanding issues that remain between GVEA and AIDEA. At present, engineers are preparing a report regarding a potential retrofit of the Healy Clean Coal Project. In the interim GVEA and AIDEA have suspended performance of the power sales agreement. No deliveries are being made at this time.

Delivery

AIDEA will deliver power to the high voltage side of the Project’s main transformer where it can be metered.

GVEA Obligations

1) During the test period GVEA must use Project energy first in meeting its energy requirements, subject to normal reliability criteria and requirements of minimum run times of other resources used when the Project is not operating or is operating at reduced capacity. GVEA must pay for all Test Energy delivered from the Project.

2) GVEA was responsible for the management, operation, maintenance, and improvement of the Project.

3) GVEA was obligated to use its best efforts to ensure that the Project provides power at the lowest reasonable cost.

GVEA Rights

GVEA had the right, on six months’ written notice, to undertake Optional Project Work at its own cost and expense. The right was circumscribed by the requirement that such work would need to be reviewed by a consultant to ensure that it did not adversely affect GVEA’s ability to meet its other obligations under the Agreement.

AIDEA Obligations

AIDEA is obligated to use best efforts to complete the Project expeditiously and in accordance with Prudent Utility Practice and sound engineering practice. This obligation is contingent upon its receiving adequate funding for the purpose.
Rates for Energy Prior to Commercial Operation

Rates are based on GVEA’s avoided costs during the hour in which energy is received. Avoided costs are calculated primarily in reference to GVEA’s economy energy contracts with Chugach. The formula for avoided costs is:

Avoided cost (kWh) =

([Heat Rate {12,000 Btu/kWh, or demonstrated actual heat rate}] * Gas Cost/MBtu + O&M {pursuant to the GVEA/Chugach nonfirm energy contract} + Margin {pursuant to the GVEA/Chugach nonfirm energy contract} + 4.9 mill {for wheeling, in 1991 dollars using GNP price deflator}) / .95 {reflects line loss}. 
Chapter 22. Bradley Lake Power Sales Contract

Overview
The Bradley Lake Project is owned by the State through the AEA (now housed within AIDEA), and its expenses -- including capital costs -- are paid for by the Purchasing Utilities (HEA, MEA, Chugach, GVEA, ML&P, and SES). Payment confers rights to power and energy from the project. The Power Sales Agreement operates in conjunction with a “Services Agreement”, as well as Dispatch, Operating, and Maintenance Agreements. Only the Power Sales Agreement will be described herein.

The Bradley Lake Project consists of two generating units that have a name-plate capacity of 60 MW each (although actual capacity has been tested to 67 MW) and 115 kV transmission facilities to move power to the switching station at Bradley Junction on the Fritz Creek - Soldotna transmission line. By statute, the Commission’s jurisdictional authority over the Bradley Lake Project is circumscribed.

Term
The Agreement was signed on December 8, 1987, and terminates at the later of:

a) 50 years after the date of commercial operation (September, 1991);
b) when no bonds used to finance the project remain outstanding.

Purchasers have the option to renew upon contract expiration.

Delivery
Power from the project is delivered to the point where the 115 kV project transmission lines connect to the 115 kV switching station at Bradley Junction on the Fritz Creek - Soldotna transmission line.

Purchaser Obligations
1) The following percentages outline both the obligation for annual project costs and the privilege of project capacity:

- AEG&T 25.8%
- MEA - 13.8%
- HEA - 12.0%
- Chugach 30.4%
- GVEA 16.9%
- ML&P 25.9%
- SES 1.0%
Thus, the Bradley Lake project could be understood as a “take-or-pay” endeavor.

**Management Rights**

Purchasers (not including AEG&T but including MEA and HEA separately) each have a representative on the Project Management Committee (PMC). Purchasers are responsible for the management, operation, maintenance, and improvement of the Project. Both dispatch and operation and management functions were determined by the Committee and codified in separate Agreements. It should be noted that AIDEA has veto authority over the annual budget. The amount of energy available each year depends upon weather and watershed conditions and is monitored for the PMC by the operator (HEA). The Commission currently does not have these subordinate agreements in its files.
Chapter 23. Eklutna Power Agreement: ML&P, MEA, and Chugach

Overview

The Eklutna hydroelectric plant consists of two 15 MW generating units, a 115 kV transmission line connecting the power plant with Palmer and Anchorage, Anchorage, Palmer, and Reed substations, and other associated facilities. The estimate for firm energy supply is 153 GWh per year, with an additional 11 GWh of non-firm energy. The plant was purchased from the Federal Government by ML&P, MEA, and Chugach for $5,953,000 in October, 1997. Ownership allocations are 53.33 percent, 30 percent, and 16.67 percent, respectively. An Eklutna Purchaser cannot transfer or modify interest in the Project without consent of the other Purchasers. Transfer of a Purchaser’s interest to an entity other than an existing Purchaser is subject to right of first refusal by remaining purchasers.

Under an agreement among the three utilities, responsibilities for Eklutna are shared. MEA takes care of operations, keeps books, and does budgeting; budgeting and bookkeeping costs are then billed to the other owners. Chugach maintains the dam, does inspections, and handles environmental compliance. ML&P does maintenance and dispatching. The three utilities each have responsibility for operation, maintenance, and repair of different portions of the Eklutna transmission segments and substations. Such costs are borne by the individual utilities and are not shared.

The Eklutna Operating Committee (EOC) meets as required, usually once a month but at least quarterly, to decide O&M and budgeting issues. The EOC is made up of one representative from each utility with the chair rotating between the utilities. Decisions by the EOC will be by double majority (a vote of two of the three Eklutna Purchasers whose shares total at least 51% of the Project shares) unless otherwise agreed to by the Eklutna Purchasers.

The AEA will maintain an energy account for each contracting utility, and track energy credits and deliveries. Available energy for the year is determined on November 1 and allocated fully among the purchasing utilities. Spinning reserves are allocated on a pro rata basis according to the share of project capacity net of project generation scheduled. Three percent of net plant output will be delivered to purchasing utilities to cover utility system losses and will not be counted as energy delivered to the utilities.

Each owner has the right to schedule during any hour its share of the plant capacity to meet its own system loads provided its energy account is not less negative than 22500 times its share of capacity. A contracting utility may schedule its full capacity share by scheduling at least 5 MW for that hour. If spill conditions occur, then the reduction in spilled energy is generally allocated according to the fraction of each utility’s account to the sum of all accounts at the time of the spill.
Chapter 24. Transmission Agreements (Blank)
Chapter 25. Chugach and GVEA Wheeling Rates

Overview

Opening the Intertie created opportunities and need for third parties to wheel energy over both Chugach and GVEA transmission systems. The above parties stipulated to rates for the use of Chugach and GVEA systems for economy energy transactions over the Alaska Intertie. The Commission approved the stipulated rates in U-86-11(5) (temporary) and U-86-11(8) (permanent). In U-86-11(13) the Commission ruled that neither Chugach nor GVEA need charge itself the 1.5 millwheeling rate when it is making economy energy sales.

Rates are set at 1.5 mills/kW for each hour of the transfer ($1.50 per MWh).

This rate may be lowered by agreement of the affected parties and filed with the Commission.

The stipulation says nothing about rates for wheeling firm power.
Chapter 26. Bradley Lake Services Agreement Between Chugach and GVEA-ML&P-SES-AEG&T-HEA-MEA

Overview

Chugach has dispatch control over Bradley Lake energy. When a wheeling utility desires to use its Bradley Lake entitlement, it notifies Chugach. However, Bradley Lake energy needs to be wheeled over the Chugach transmission system. This agreement concerns the terms under which wheeling occurs. The agreement also describes services that Chugach provides when transmission constraints prevent the wheeling of energy to which a party is otherwise entitled. These services include energy purchases and energy storage in Chugach’s Cooper Lake Reservoir.

All purchasers of Bradley Lake energy are parties to the services agreement. However, because Chugach has net billing arrangements with most of these entities, wheeling and other services need only be purchased by a Wheeling Utility. The language defining a Wheeling Utility is complex. In the end, a wheeling utility is one that does not have a wholesale contract with Chugach under which Chugach reimburses that Party’s costs of purchasing Bradley Lake Energy. In short, only ML&P and GVEA are wheeling utilities.

Term

The Services Agreement expires at the earlier of 50 years from the beginning of the Bradley Lake Power Sales Agreement or the date on which the AEA terminates the Power Sales Agreement. That said, either Chugach or a Wheeling Utility could terminate the services agreement if alternate transmission facilities are capable of carrying the wheeling utility’s Bradley Lake energy.

Chugach Rights

I. Chugach may schedule its resources to meet as a first priority the safety, efficiency and economic needs of Chugach’s own system. This priority is circumscribed:

   i) Chugach may not deny wheeling, storage, or purchase service from another utility for any other reason;
   ii) Chugach may not operate its system differently from how it would have operated if the Bradley Lake Energy of the Wheeling Utilities did not exist.
Chugach Obligations

I. Chugach must:

1) dispatch Bradley Lake power;
2) schedule wheeling, storage, and energy purchase services for Wheeling Utilities;
3) coordinate with HEA to minimize potential conflicts between:
   i) HEA operations
   ii) Chugach Operations
   iii) Dispatch of Bradley Lake generation.

Wheeling

A Wheeling Utility can request “Assured Delivery” of Bradley Lake energy for a period of up to two weeks. Chugach is obligated to perform assured delivery, subject only to forced outage. Wheeling rates for “Assured Delivery” are higher than normal wheeling rates (see below).

Storage

If transmission constraints prevent wheeling of Bradley Lake energy and if that energy can no longer be stored at Bradley Lake, then a Wheeling Utility may request storage at Chugach’s Cooper Lake Reservoir. Chugach is not obligated to store such energy if it can be wheeled.

If Chugach needs to spill water from Cooper Lake, it will spill other utilities’ energy first, unless the utility has a “Protected Storage Agreement”. Protected storage is subject to fees, to be negotiated with Chugach.

Purchases

If a Wheeling Utility’s Bradley Lake energy can be neither wheeled nor stored, Chugach will purchase that energy if it can use it for Chugach loads. Chugach need not make such a purchase if:

i) it is more expensive or -- in Chugach’s reasonable determination -- less useful to Chugach. (Chugach is permitted to offer to buy such energy at its avoided system cost.)
ii) would conflict with a prior Chugach contractual obligation.
iii) would conflict with a Chugach legal obligation.
Service Rates

Basic Wheeling Rates

Wheeling rates are charged for energy delivered to the Soldotna Substation. However, actual energy received by Wheeling Utilities is reduced by line losses to the extent that such deliveries are made by Direct Transmission. (Line losses are calculated as the percentage of line losses on Chugach’s wholesale system.) To the extent that deliveries are made by Offsetting Flows, such deliveries are not reduced for line losses. (Offsetting Flows of energy are those that do not physically travel from Bradley Lake.)

Wheeling rates reflect the portion of Chugach’s system over which wheeled energy may flow. Rates are set as the cost of Chugach’s transmission system (less the portion running from Beluga to Point MacKenzie) divided by the sum of Chugach kWh (generated and purchased) and Wheeled Bradley Lake energy, multiplied by a fraction (less than one). Formally:

\[
\text{Rates} = K \times \frac{\text{Base}}{[\text{Chugach generated and purchased kWh} + \text{Wheeled Bradley Lake Energy}]}
\]

where \textit{Base} is composed of the costs of Chugach’s transmission system, excepting the portion of the system from Beluga to Point MacKenzie (but including the Pt. MacKenzie Substation). That is,

\[
\text{Base} = (\text{O&M} + \text{A&G} + \text{taxes} + \text{Depreciation} + \text{Interest and TIER}).
\]

\[K = 0.5\text{ per Intertie Participants Agreement.}\]

“Chugach generation” excludes its economy energy sales, but includes the Bradley Lake energy that Chugach receives from SES and MEA under its net billing agreements with these utilities.

Assured Delivery Wheeling Rates

Wheeling rates for “Assured Delivery” are 15 percent higher than base rates and, in addition, include an “outage premium” that applies if:

a) Chugach suffers a forced outage during the period of Assured Delivery, and as a result
b) must start back-up generation which is more costly than it otherwise would have operated if it didn’t have to provide Assured Delivery, and
c) the Wheeling Utility chooses not to cancel its Assured Delivery.
The premium will be the incremental difference between generation options available to Chugach.

Storage
Is not subject to charge, contingent upon availability. Rates for Protected Storage, which protect against spill, are subject to terms negotiated with Chugach.

Purchased Energy
Rates differ depending upon system conditions.

i) Condition #1 exists when the Chugach energy displaced from its Kenai resources costs less than the sum of Bradley Lake energy and wheeling charges necessary to move the power to the Soldotna substation. Under Condition #1, Chugach will pay 95 percent of the cost of energy from the particular displaced resource.

ii) Condition #2 exists when the Chugach energy displaced from its Kenai resources costs more than the sum of Bradley Lake energy and wheeling charges necessary to move the power to the Soldotna substation. Under Condition #2, Chugach will pay the lower of:

- 95 percent of the cost of the energy displaced from the particular resource;
- (Bradley Lake Energy + Wheeling charges to Soldotna Substation + Displaced Chugach energy)/2

Other provisions

I. New Transmission

If any Party, alone or with other entities, constructs a new transmission capacity linking the Kenai Peninsula with Anchorage via a different transmission corridor, then each other Party will have the opportunity to own a share of that transmission capacity in proportion to its share of Bradley Lake energy.

II. Operation and Maintenance

The Parties agree that AEG&T/HEA are the appropriate entities to operate and maintain the Project.
Chapter 27. Bradley Lake Transmission Sharing Agreement Between HEA and Chugach - GVEA - ML&P

Overview
The Bradley Lake project required construction of a transmission line between Bradley Junction and the Soldotna Substation, a distance of roughly 47 miles. HEA agreed to construct that 115 kV line. Because parties to the Bradley Lake Power Sales Agreement cannot get their electricity without making use of that line, they entered into sale and lease arrangements of portions of the line. The terms of these agreements are set out in this contract.

Term
The contract expires at the earliest of:

1) when the line is no longer used and useful and all costs have been paid;
2) when the Bradley Lake Power Sales agreement ends;
3) any other date mutually agreed upon by the parties.

HEA Obligations
1) HEA is obliged to sell or lease portions of the transmission line in proportion to the Purchaser’s share of Bradley Lake energy. (Given its net billing arrangements, Chugach’s share is deemed equal to the sum of Chugach, MEA, and SES shares.)

2) HEA must provide voltage support to the extent economically feasible so that the operational capacity of the line remains at least 135 MW. If its support is insufficient, HEA’s rights to Bradley Lake energy will be subordinate to all other parties.

HEA Rights
1) HEA will be compensated for line losses that it experiences as a result of carrying Purchaser’s power.

2) In each month, HEA will receive payment for O&M expenses on the transmission line -- including all expenses of providing voltage support, and income taxes (if any) which arise from selling transmission capacity -- in proportion to the purchaser’s share of Bradley Lake capacity.
Chapter 28. Alaska Intertie Agreement Between the AEA and ML&P - Chugach - AEG&T - GVEA - FMUS

Overview

The Intertie Agreement establishes individual rights for transfer capability of the Intertie and means of determining costs thereof. The maximum Intertie transfer capability is 70 MW. Participants have the right to request additions, deletions, or changes to the Intertie, which the AEA may not unreasonably refuse.

Term

Entered into on 12/23/1985, the Agreement remains in effect until all Parties mutually agree to terminate it. Any Party may terminate its participation on four year’s notice. The AEA may terminate the Agreement on four years’ notice if it determines that doing so is required to improve Railbelt power systems.

Intertie Operating Committee

The Agreement creates the Intertie Operating Committee (IOC). The IOC establishes operating procedures and standard practices for the Intertie. These guide dispatchers and others on matters that affect Intertie operations. All Participants have a representative, all representatives have equal authority, and all decisions must be by 75 percent majority.

Obligations of Participants

Participants have a number of specific obligations to ensure safe and reliable Intertie operation. These include: keeping the frequency of the interconnected systems as closely as practical at 60Hz; maintaining standards for control of time error; supplying sufficient reactive power; refraining from imposing abnormal loads upon facilities of another Participant; agreeing to the Reserve Capacity and Operating Reserve Responsibility Agreements; scheduling all intentional power and energy deliveries in advance; working to minimize inadvertent flows; among others. In addition, each Participant will have an automatic load shedding system, in accordance with criteria developed by the IOC.

Intertie Operations

AEA delegates operation responsibility to ML&P and GVEA, under guidelines from the IOC.
• ML&P operates the southern half of the Intertie. It is delegated AEA’s responsibility under the AEA-MEA Agreement governing MEA’s transmission facilities between Douglas and Teeland Substations.

• GVEA will operate the northern half of the Intertie.

ML&P and GVEA will, in concert, work to ensure smooth operation of the Intertie. This includes:

a) developing procedures for restoration of service;

b) operating the Intertie in a safe and responsible manner consistent with Prudent Utility Practices and the directives of the IOC.

Allocation of Capacity

The Intertie transfer capacity rights are specified as Minimum Intertie Transfer Capability Rights (MITCR), which are calculated once per year. MITCR is based on the average of the last three Annual System Peak Demands of the utility Participants; it is calculated with reference to whether a utility is in the Northern (GVEA) or Southern (ML&P, Chugach, AEG&T) portion of the Intertie. Thus, a utility’s MITCR is its average peak system demand, divided by the sum of average peak system demands of other members of its group (Northern or Southern), times Intertie transfer capability.

If a Participant is not using all of its MITCR in each direction, other utility participants have the right to use the unused part to make transfers across the Intertie. Unused MITCR will be allocated based on proportion of a utility’s MITCR to total group (northern or southern) MITCR. Monthly compensation for unused MITCR will be:

\[ P = \frac{\text{Intertie Capacity Rate}}{12} \times \text{Capacity used} \times \text{(Fraction of month that the capacity is used)} \]

Intertie Costs

Construction costs of initial Intertie facilities were paid through direct appropriation from the legislature. Thus, rates for Intertie use reflect only Operations and Maintenance Costs, debt costs for bonds (if any) issued by AEA, and costs for using Intertie transmission facilities owned by MEA.

Intertie costs are shared in proportion to estimated Intertie use. Payments are based on both energy and capacity. The costs of the Intertie will be recovered as follows: 83.5 percent through energy charges and 16.5 percent through demand charges. When there is a scheduled Power and Energy delivery on the Intertie, and the contract path does not equal the physical path, the contract path is assumed.
• The rate for energy use -- in cents per kWh -- is set by dividing total annual Intertie costs by the sum of all Parties’ projected kWh usage. (Total usage is stipulated to be at least 30 percent of total Intertie capacity -- based on continuous use -- or actual use, whichever is larger). The result is then multiplied by .835.

• The rate for capacity use -- in dollars per kW -- is set by dividing total annual Intertie costs by the sum of all Parties’ MITCR. (Again, each Party’s MITCR is the average of the past three years’ data.) The result is then multiplied by .165.

Over-collections are trued up at year end through refunds in proportion to a Participant’s Intertie dollars billed. Under-collections are billed to Participants’ in the same proportion as their MITCR share.
Chapter 29. Alaska Intertie Maintenance Agreement Between the AEA and AEG&T

Overview

The Agreement makes AEG&T responsible for maintaining the Southern portion of the Intertie Facilities. AEG&T is responsible for the Douglas Substation, and the Intertie transmission line from Teeland Substation to the Midpoint of the Intertie. The AEA will reimburse AEG&T for these maintenance costs.

AEG&T subsequently assigned the Maintenance Agreement to MEA. Under the terms of the Maintenance Agreement, MEA becomes responsible for all of AEG&T’s duties and rights.

The costs of maintenance are paid by the AEA, and ultimately charged to users of the Intertie.

Term

The Agreement expires upon 12 months’ written notice by either party, or by 90 days’ notice given a material breach of the Agreement.

Obligations of AEG&T

Among other specific enumerated obligations, AEG&T must:

- Maintain the Southern portion of the Intertie, including the Douglas Substation.
- Coordinate maintenance schedules with all participants of the Alaska Intertie Agreement.
- Schedule inspections and inspections required by the annual maintenance plan. It will provide an inspection report to the AEA.
- Maintain and read all meters.

Rates

The AEA will provide AEG&T with an annual budget sufficient to satisfy the Intertie maintenance costs incurred by AEG&T. It will reimburse AEG&T for labor, materials, supply, equipment, and training costs. These costs are then passed through wheeling rates over the Intertie.
Chapter 30. Transmission Service Agreement Between MEA and AEA

Overview
MEA owns and operates a 138 kV transmission line between Douglas and Teeland substations. Utilities must use this line to make use of the Intertie. This Agreement concerns terms under which the AEA purchases transmission capacity from MEA so that the Intertie can be used.

Term
The agreement may be terminated by mutual consent at any time. It may be unilaterally terminated on July 1, 2004, or on July 1 of any subsequent year if twelve months’ advance notice is provided.

Obligations of MEA
• MEA is obligated to make all excess transmission capacity to AEA. Excess capacity will be reported to AEA at least monthly and whenever it is changed during normal operations.
• MEA is responsible for the line’s maintenance.

Rates
• Energy losses shall be made up for by the Party supplying the power. There is no financial compensation for losses due to others’ use of the line.
  – MEA losses are calculated using MEA transfers on the line as the base load of the transmission line.
  – Losses of Intertie participants are calculated using participant transfers as an addition to MEA base load.
• Transmission service rates are derived from the portion of the annual projected costs for providing excess capacity transmission service.
• MEA reinsulated a portion of the transmission line and recovers the cost through the transmission rate it charges. Thus, the total rate per kWh is determined by the following formula:

\[
\text{Transmission Rate} = \frac{[O&M + A&G + \text{taxes} + (\text{annual depreciation} + \text{capital costs})/4]/(\text{total kWh}) + [\text{annual depreciation and capital costs of reinsulation}]/(\text{total kWh})}{(\text{total kWh})}.
\]
Chapter 31. Transmission over Eklutna Project System

Overview

The following information comes from comments submitted by MEA in response to Order 5 of R-97-10.

Electric energy, in addition to that generated by the Eklutna Project, is wheeled through the Eklutna Project transmission system. The wheeling service is apparently not performed according to any written agreement. In general, wheeling allows transmission of energy generated by Chugach for MEA. It is scheduled through ML&P dispatch, and costs are administratively allocated among the project owners according to the “Agreement for Extension of the ‘1996 Eklutna Hydroelectric Project Transition Plan’”.