CASCADE NATURAL GAS CORPORATION

Docket No. UG-951415

1995 WASHINGTON ANALYSIS OF 1994 TEST PERIOD

Request #235

Date prepared: 3/5/96

Preparer: Jon T. Stoltz

Telephone: (206) 624-3900

RE: Alcoa Special Contract Cost of Bypass

Please provide any studies or analysis the Company performed indicating the cost of bypass of Alcoa. The response should include all assumptions, criteria, and all third party data the Company relied upon to form its estimate.

Response:
No studies or analysis were preformed. See response to D/R # 234

CASCADE NATURAL GAS CORPORATION

Docket No. UG-951415

1995 WASHINGTON ANALYSIS OF 1994 TEST PERIOD

Request #238

Date prepared: 3/5/96

Preparer: Emmerich M. Waas/Jon T. Stoltz

Telephone: (206) 624-3900

RE: Alcoa Special Contract -- Customer's maximum willingness to pay

Please provide any analysis and studies indicating Alcoa's maximum willingness to pay. The response should include any assumption, criteria, and third party data the Company relied upon to assert its estimate.

Response:
See response to Request #236.

CASCADE NATURAL GAS CORPORATION

Docket No. UG-951415

1995 WASHINGTON ANALYSIS OF 1994 TEST PERIOD

Request #240

Date prepared: 3/5/96

Preparer: Peter A. Schwartz/Jon T. Stoltz

Telephone: (206) 624-3900

RE: Tenaska Special Contract -- Value of Transportation Service

Please provide all studies of any sort performed by the Company after the Contract was signed indicating the value the customer placed on natural gas transportation service. The response should include all assumptions, criteria, and third party information utilized by the Company to form each study's conclusion(s).

Response:

No studies were performed by the Company after the Tenaska Special Contract was signed that indicated the value the customer placed on natural gas transportation service.

CASCADE NATURAL GAS CORPORATION

Docket No. UG-951415

1995 WASHINGTON ANALYSIS OF 1994 TEST PERIOD

Request #242

Date prepared: 3/5/96

Preparer: Emmerich M. Waas

Telephone: (206) 624-3900

RE: Encogen Special Contract -- Value of Transportation Service

Please provide all studies of any sort performed by the Company after the Contract was signed indicating the value the customer placed on natural gas transportation service. The response should include all assumptions, criteria, and third party information utilized by the Company to form each study's conclusion(s).

Response:
After the contract was signed Cascade did not preform any studies that reflected the value the customer placed on transportation service.

CASCADE NATURAL GAS CORPORATION

Docket No. UG-951415

1995 WASHINGTON ANALYSIS OF 1994 TEST PERIOD

Request #243

Date prepared: 3/5/96

Preparer: Daniel E. Meredith

Telephone: (206) 624-3900

RE: Encogen Special Contract -- Follow-up on Response to PC DR Number 32

Please provide a detailed explanation of the remarks made by the Company (denoted as page E03282 of Public Counsel Data Request No. 32) in reference to the Bellingham high pressure cost analysis that: "In retrospect, it would appear that such a project bears much closer monitoring and more thorough preliminary investigation."

Response:

The remarks in the sentence referenced on page E03282 of the Bellingham 10" & 12" High Pressure Line Cost Analysis state the obvious - that the estimates made were inaccurate with 20/20 hindsight. By itself, it is incomplete and does not accurately reflect a complete summation of the reasons for the cost increases on this project. The entire document presents the reasons for the cost increases and many of those reasons were beyond the Company's control or could not have been identified prior to completing the engineering and permitting process. As explained in the body of the analysis, the Company did provide proper investigation and oversight.

The project was closely monitoring throughout the planning and construction phases. All charges and expenditures were reviewed and approved by Engineering and Operations management.

As has been explained in several Data Request responses, the methods and thoroughness of preliminary engineering has increased from the time that this project was started. The initial cost estimates for the Bellingham project were calculated with an inch-mile method that was not accurate. After it was determined that this method was inadequate, other methods were employed. These methods included preliminary estimates from pipeline contractors, research of property values, property ownership

and potential pipeline rights-of-way and identification of environmentally sensitive areas and permitting requirements.

Many of the environmental permitting requirements were not revealed until well into the permitting process. Cascade argued without success with the City of Bellingham planning staff and Planning Commission to be allow to use existing street rights-of-way for the most difficult area of the project. The Planning Commission sided with City staff and issued a Shorelines Permit that allowed Cascade only one route through the area near Squalicum Creek and East of Interstate I-5. This eliminated public rights-of-way with had existing utility lines and forced Cascade to secure private easements from the adjacent property owners. Cascade was forced to pay the price asked by the private owners and construct the pipeline in a very difficult location.

CASCADE NATURAL GAS CORPORATION

Docket No. UG-951415

1995 WASHINGTON ANALYSIS OF 1994 TEST PERIOD

Request #249

Date prepared: 3/5/96

Preparer: Emmerich M. Waas/King C. Oberg

Telephone: (206) 624-3900

RE: Puget Whitehorn Special Contract -- Value of Transportation Service

Please provide all studies of any sort performed by the Company after the Contract was signed indicating the value the customer placed on natural gas transportation service. The response should include all assumptions, criteria, and third party information utilized by the Company to form each study's conclusion(s).

Response:
No studies of any sort were performed by Cascade after the special contract was signed.

CASCADE NATURAL GAS CORPORATION
Docket No. UG-950326
RATEMAKING TREATMENT OF SPECIAL CONTRACTS

Date Prepared: July 19, 1995
Preparer: Larry L. Clark
Telephone: (206) 624-3900

Public Counsel Data Request No. 11

The term "feasibility study" is used by Mr. Stoltz at several points in his prepared testimony.

a. Please define, describe in detail, and state the purposes of a feasibility study.

b. Please provide any manual, text, or other document in which the methods or standards of Cascade for preparing feasibility studies are set out.

c. Please provide any manual, text, or other document that sets out how the results of a feasibility study are to be used or interpreted in Cascade's decision processes.

d. Please state whether Cascade has a "hurdle rate," i.e., a minimum rate of return on investment, for investments required to fulfill special contracts. If so, please provide any document that sets out that rate or that describes or justifies the determination of that rate.

Response:

a. "Feasibility study," as used by Mr. Stoltz, referred to a discounted cash flow (DCF) analysis the Company performs on new construction such as these cogeneration projects. This DCF analysis is also used to determine a basis for negotiating a special contract rate for bypass avoidance even when no new facilities are required for Cascade to continue service to the bypass potential customers. In bypass

CASCADE NATURAL GAS CORPORATION
Docket No. UG-950326
RATEMAKING TREATMENT OF SPECIAL CONTRACTS

Date Prepared: July 19, 1995
Preparer: Larry L. Clark
Telephone: (206) 624-3900

Public Counsel Data Request No. 11 (Continued)

a. avoidance, Cascade uses what it estimates would be the customer's cost of bypass facilities. The estimated cost, including overhead, of the new facilities is included in the analyses as well as expected revenues or revenue requirements, incremental expenses including meter reading, chart changing, pipeline surveillance, cathodic protection, odorization of the gas and depreciation of the new facilities over the life of the contract. The DCF calculates the internal rates of return for equity and for overall, based upon Cascade's capital structure.

b. No manuals, texts, or other documents set out Cascade's feasibility analysis. Cascade's feasibility model, the DCF analysis, is designed similar to such analysis models used by other gas utilities in Washington and has been reviewed by WUTC Staff in several of Cascade's Special Contract filings.

c. No manuals, texts, or other documents set out how the results of a feasibility study are to be used or interpreted in Cascade's decision process. The underlying assumptions and the results of the DCF are discussed and reviewed by Cascade's management, including the Chairman of the Board, the President, Vice President of Finance, Vice President of Gas Supply, Vice President of Rates and Planning, Vice President of Engineering, Director of Industrial Sales and others, before negotiations with the customer are conducted.

d. Cascade does not have a stated "hurdle rate" and seeks the highest rate of return which will not result in customer bypass. The Company attempts to avoid projects which would result in earning less than its currently authorized return on equity over the life of the contract.

CASCADE NATURAL GAS CORPORATION
Docket No. UG-950326
RATEMAKING TREATMENT OF SPECIAL CONTRACTS

Date Prepared: July 19, 1995
Preparer: Daniel E. Meredith
Telephone: (206) 624-3900

Public Counsel Data Request No. 13

Please provide any study, analysis, or other document that evaluates or describes the difference between projected and actual costs of constructing the facilities related to the March Point, Tenaska, and Encogen contracts.

Response:

The attached spreadsheets compare the projected (estimated) costs of constructing the Encogen facilities to the actual costs.

This response will be updated as soon as the March Point and Tenaska analyses are completed.

(Attachments)

Cascade Natural Gas Corporation
Staff Data Request Response
Supplemental Budget and Amendments to Encogen Northwest Contract
Docket No. UG-911345

Data Request Response 7

The direct construction/installation costs for the 10 inch and 12 inch pipeline have increased substantially. Please provide a detailed explanation for this increase. Please provide all relevant calculations.

The previous direct construction cost estimate for contractor installation was based on previous contracts and Cascade's expectation of the extra costs associated with the specific route chosen for the project. The direct cost estimates submitted with the supplemental budget are based on the actual contract prices and the latest estimate of extras such as asphalt and select backfill that are required.

It is evident that Cascade underestimated the difficulty of the construction on this project. The previous construction cost estimate was made in February 1992, prior to changes and restrictions to the pipeline route that developed during the permitting process. Construction along many of the city streets involves old street surfaces and fill material that were not anticipated at the time of the previous cost estimate.

The attached table compares the various components of Cascade's current supplemental budget amounts with those original estimated amounts made in February 1992

Cascade Natural Gas Corporation

COMPARISON OF CURRENT BUDGET & INITIAL ESTIMATED COSTS

FERC Acct.	DESCRIPTION	QUANTITY CURRENT	QUANTITY ORIGINAL	CURRENT	ORIGINAL	DIFFERENCE	EXPLANATION
376	10" Pipe & Material	17,500	17,000	$300,000	$221,000	$79,000	The final route increased the need for 10" by 500 feet. Cascade initially underestimated the cost of 10" by $4.14 per foot.
376	12" Pipe & Material	21,000	21,000	$400,000	$315,000	$85,000	Cascade underestimated the cost of 12" by $4.05 per foot.
376	16" Pipe & Material	2,600	0	$65,000	$0	$65,000	The final route requires 2,600 ft of 16" while no 16" was included in Cascade's original estimate.
376	Installation - 10" Pipe	17,500	17,000	$1,100,000	$510,000	$590,000	Cascade underestimated the installation cost of 10" by $32.86 per foot.
376	Installation - 12" Pipe	21,000	21,000	$1,750,000	$945,000	$805,000	Cascade underestimated the installation cost of 12" by $38.33 per foot.
376	Installation - 16" Pipe	2,600	0	$175,000	$0	$175,000	The final route requires 2,600 ft of 16" while no 16" was included in Cascade's original estimate.
376	Regulator Station			$27,000	$15,000	$12,000	Cascade's current amount includes sales tax.
381	Customer Meter			$22,000	$20,000	$2,000	Cascade's current amount includes sales tax.
383	Customer Regulators			$22,000	$20,000	$2,000	Cascade's current amount includes sales tax.
382	Meter Set Fittings & Labor			$70,000	$65,000	$5,000	Cascade's current amount includes sales tax.
397	Telemetry			$16,000	$15,000	$1,000	Cascade's current amount includes sales tax.
376	Permits & Right-of-way			$1,266,000	$300,000	$966,000	Cascade underestimated the cost of permits and right-of-way by $966,000.
376	Company Inspection			$50,000	$50,000	$0	
	Contingency			0	$242,000	($242,000)	No contingency is used in the current budget
	Sales Tax			0	$207,000	($207,000)	Sales tax is included in direct costs
	SUBTOTAL			$5,263,000	$2,925,000	$2,338,000	
	Indirect Costs			$707,347	$578,273	$129,074	The indirect cost calculation reflects Cascade's current overhead rate.
	TOTAL			$5,970,347	$3,503,273	$2,467,074	

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