BEFORE THE STATE OF WASHINGTON
ENERGY FACILITY SITE EVALUATION COUNCIL

In the Matter of Application No. 96-1,	)	
	)	
Olympic Pipe Line Company	)	EXHIBIT ___
	)	
Cross Cascade Pipeline Project	)	
	)	
	)	

APPLICANT'S PREFILED DIRECT TESTIMONY

WITNESS #3: PAUL D. ROLNIAK

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Q. Please state your name and employment position.

A. My name is Paul D. Rolniak. I am a principal and vice president of Energy Analysts International, Inc. ("EAI"). My business address is 12000 N. Pecos Street, Suite 310, Westminster, Colorado 80234.

Q. What is your educational and employment background?

A. I received a Bachelor of Science degree in Chemical Engineering, graduating first in my class, from the University of Arkansas in 1972. I received a Ph.D. in Chemical Engineering from Rice University in 1976.

During the summer of 1972, I was employed by Monsanto Petrochemical in Massachusetts. I conducted product contamination studies on a commercial scale continuous polystyrene production plant for Monsanto. After receiving my Ph.D., I was employed as a research engineer for Exxon Research and Engineering from 1977 to 1979. I then became a consultant for the Pace Company Consultants and Engineers in Denver, Colorado from 1980 to 1982.

In 1983, Joseph J. Leto and I founded EAI.

Q. What topics is your direct testimony intended to cover?

A. My testimony is intended to cover the following topics:

First, I will explain the type of services which EAI provides.

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Second, I will explain the type of work product which we have provided to Olympic.

Finally, I will provide an overview and summary of EAI's analysis of the Pacific Northwest and the extra-regional factors impacting the Pacific Northwest.

Q. Could you explain the type of business which EAI conducts?

A. In summary, EAI prepares detailed regional analyses regarding the petroleum market, including supply and demand driven fundamentals for refined products and crude oil. Our analyses include the valuation of terminal markets and pipeline corridors.

Q. In general, how does EAI go about producing its work product?

A. EAI has developed a methodology for evaluating and analyzing supply-demand relationships for refined products, crude oil and pipeline facilities. EAI establishes geographical boundaries that match the requirements of the analysis, including product and resource supply boundaries, product distribution and market boundaries, economic boundaries, and facility and/or business area boundaries. EAI then develops an information base which completely characterizes the region, allowing for the definition of trends, impacts and opportunities. EAI has developed an extensive database and analytical tools to address refining of products, product transportation and distribution, product demand, retail markets and consumer sectors. Because we have developed detailed analyses of the entire U.S. petroleum network, we are able to maintain comprehensive coverage and tracking of the network's components. Specifically, with regard to pipeline projects, we have expertise in analyzing proposed projects, providing expansion studies and competitor analysis, opportunity identification and evaluation,

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planning and strategy studies, market analysis, and tariff strategies. We utilize a computerized modeling system to assist our analyses.

Q. What is the extent of the work product which you have provided in these areas of expertise?

A. I personally have authored or co-authored well over one hundred proprietary consulting studies regarding the supply and distribution of refined products and crude oil in the United States. We have provided our services to literally dozens and dozens of clients, including governmental agencies, research institutes, private businesses, pipeline and petroleum product companies, and energy firms.

Q. What is your relationship with Olympic Pipe Line Company ("Olympic")?

A. Olympic has been a client for EAI for over ten years. We have provided Olympic with regional analyses of the Pacific Northwest, at their request, on a regular basis.

Q. Do you have an opinion regarding the projected growth and demand for refined petroleum products in the Pacific Northwest and Eastern Washington?

A. Yes. There is continued growth for refined products such as gasoline in the Pacific Northwest and specifically Eastern Washington. The recent demand growth outpaces EAI's previous forecasts. Existing supply sources for Eastern Washington are constrained by refineries operating at high utilization rates, the Chevron pipeline being at capacity, and high demand growth in alternative local markets.

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Q. Could you explain how you reached these general conclusions, and provide specific information supporting your opinions?

A. EAI's overall view is that the energy network represents a linked system that is continuous from crude production through refining to the end petroleum product markets. It is not discontinuous; events on the market side drive the system all the way through to the crude oil production side and vice versa. See Exhibit A.

EAI has divided the United States into relevant regions with respect to petroleum product supply and distribution. An overview of the refineries and product pipeline network shows how specific regions can be isolated into areas with specific characteristics with respect to product supply. For instance, the Pacific Northwest has a major refining center in the Puget Sound which supplies a majority of the product. Important other product sources are the Rocky Mountain refineries supplying product into the eastern portions of the Pacific Northwest. California refineries are also important for product supply. See Exhibit B.

As an overview, the basis for EAI's product supply-demand forecast is the whole Western Region which is composed of the Pacific Northwest, Rockies and Pacific Southwest. Trends in product supply in one region affect availability of sourcing of product to the other regions. See Exhibit C.

Q. What are the general supply-demand fundamentals for these regions?

A. In the Pacific Northwest, the major refineries are the ARCO, Shell (now Tesoro), Texaco and Tosco refineries located in the Puget Sound area. Billings refineries which supply product to Eastern Washington are the Conoco and Exxon refineries. The Salt Lake City

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refineries are the Amoco, Chevron, Flying J, and Phillips refineries. Chevron, which is a major player in the Pacific Northwest market, also has refineries in the San Francisco Bay area and Los Angeles. See Exhibit D.

With the construction of the Diamond Shamrock pipeline from the Texas panhandle to El Paso, the Western Region became a linked network from the Gulf Coast to the Rockies to the Pacific Northwest to the Pacific Southwest. That is, product supplied to one area can displace products in another area and made available to another area. Waterborne movements from the Puget Sound to California, from California to Portland, and from Portland to Pasco are important aspects of this network. See Exhibit E.

Refineries in the Puget Sound, Salt Lake City and Billings have been operating at high rates of utilization. The Olympic pipeline system from Tacoma to Vancouver-Portland has been at capacity. The Chevron pipeline from Salt Lake City to Boise has been at capacity particularly in the gasoline line. The Yellowstone pipeline from Billings to Spokane was "cut" in spring 1995 in the Missoula to Thompson Falls segment. Product is now railed from Helena to Thompson Falls or Spokane. The other major source of product for Eastern Washington is via barges from Portland up the Columbia River to Pasco. At Pasco, barge product is input into the Chevron pipeline for delivery to Spokane. Product supply for the Portland area consists of Olympic pipeline deliveries, product tankered from the Puget Sound and product tankered from San Francisco to Portland. A high rate of product demand growth has occurred in the Salt Lake City area such that product supply has generally been limited in the Boise to Pasco segment of the Chevron pipeline. Increased product supply in the Salt Lake City area has come from slightly increased refinery runs and an expansion of the Pioneer pipeline. In general,

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product supply for the Rockies can be described as tight with limited access to other product except through product pipelines supplying the Colorado front range. See Exhibit F.

Q. What is the demand forecast for the Western Region, including the Pacific Northwest?

A. EAI's forecast of product consumption in the Western Region is based on the long term trends and product demand growth. In general, product demand in Washington has been growing at a rate of 1.48% per year while the growth rates in the outlying areas have been much higher. Product demand growth has also resumed in California. Vancouver, B.C. is also recently a high demand growth area. See Exhibit G.

Gasoline demand growth in the Pacific Northwest micro markets has been excellent -- outpacing EAI forecasts. See Exhibit H.

Q. What has been the historic product supply for Eastern Washington?

A. Product supply for the Eastern Washington area is composed primarily of barges up the Columbia River from Portland and through the Yellowstone pipeline from Billings. Refineries at Billings have been at capacity and the Yellowstone pipeline has reportedly been having difficulty rerouting around the Flathead Indian Reservation. Salt Lake City product is a relatively small portion of the eastern Washington supply. For the defined Eastern Washington area, an important source of product is from Seattle via trucks. This supply serves the corridor from Ellensburg to Pasco. See Exhibit I.

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Q. What is the operation status of the Chevron pipeline?

A. The Chevron product pipeline has been operating at high rates of utilization in the gasoline segment from Salt Lake City to Boise. The distillate segment has been operating at lower rates of utilization but distillate supply has historically been short in the Rockies. The Boise to Pasco segment of the Chevron pipeline has been subject to product retraction during high demand months in the Rockies -- especially the Salt Lake City area. See Exhibit J.

Q. What is the operation status of the Pioneer pipeline?

A. The Pioneer pipeline has also been another source of product into Salt Lake City. It was recently expanded from 34,000 BPD to 48,000 BPD. Product supply for the Pioneer pipeline is limited due to the high rates of utilization of the Wyoming and Montana refineries plus resumption of demand growth in the Rocky Mountain states. In general, incremental product supply for the Salt Lake City area requires retraction of the Sinclair-Rawlins refinery product from the Denver market and redirecting the product to Salt Lake City via Pioneer product pipeline. Replacement of this product in the Colorado Front Range market, also a high growth market, requires the importation of either Midcontinent or Texas panhandle product through Chase, Phillips or Diamond Shamrock pipelines. See Exhibit K.

Q. What is the operation status of the Yellowstone pipeline?

A. Product supply for the Yellowstone pipeline is limited due to the high utilization rates of the Billings refineries. Product from those refineries via the Yellowstone pipeline is fully apportioned among available markets. In addition, the principal markets served by the Billings refineries continue to experience high growth rates, including Montana,

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Wyoming and Salt Lake City. The Yellowstone pipeline across the Flathead Indian Reservation was "cut" in 1995 and efforts to reroute around the Flathead Reservation are in the environmental review stage, forcing shippers to transport product by rail. The draft EIS is scheduled to be available in early 1999 for review and comment. The terrain through which the Yellowstone pipeline must reroute offers relatively few options for alternative routes should serious opposition be encountered.

Q. What has been the recent product output of the Puget Sound refineries?

A. ARCO, Shell (now Tesoro), and Texaco refineries are the primary sources of light product (gasoline, jet distillate) in the Puget Sound area. The following exhibit describes output results for the Puget Sound refineries. See Exhibit L.

Q. What is the status of the supply-demand network in the Rocky Mountain region?

A. Exhibit M indicates the status and trends in the product supply-demand network of the Rocky Mountain region. Although most of the major topics have already been mentioned, an important feature of the Rockies is that as product demand has grown and refineries have been fully utilized, then product supply for major market areas has been obtained by retraction from outlying markets. This has particularly happened in the western Rockies (Utah and Idaho where increasingly product is trucked from Las Vegas into Southwestern Utah, is trucked from Colorado into eastern Utah, and is retracted from Chevron pipeline markets in eastern Washington). See Exhibit M.

Total supply of gasoline in Salt Lake City is primarily associated with Amoco, Chevron, and Pioneer pipeline sources; Sinclair refinery at Rawlins and Conoco refinery at Billings. See Exhibit N.

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As mentioned previously, Utah refineries have been operating at high utilization rates. These rates have increased further with the advent of increased availability of Canadian light sweet crude through the Express and Beartooth pipeline systems. See Exhibit O.

Similar to Utah refineries, Wyoming refineries have been operating at high utilization rates. See Exhibit P.

Montana refineries have also been operating at high utilization rates at least seasonally. Thus refineries in the Rockies that have access to Spokane through either Salt Lake City or Billings are all operating at high utilization rates. See Exhibit Q.

Q. How do these factors impact supply to Eastern Washington from the Rocky Mountain refineries?

A. Based on high operating rates of Rocky Mountain refineries, limited refinery capacity increases, and a conservative demand growth forecast, a deficit of gasoline is forecast for the Salt Lake City and Eastern Washington corridors. See Exhibit R.

EAI's forecast for the Rockies as a whole is for an increasing deficit that is composed of Colorado incremental product demand, retraction of product from Colorado to supply the Salt Lake City to Eastern Washington corridor, and the Utah-Idaho supply shortfall. See Exhibit S.

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Q. What is the comparative cost of supplying product to Eastern Washington from the various supply sources?

A. Exhibit T gives an overview of the transportation costs associated with supplying product from the refining centers into the Eastern Washington market. Billings refineries through Yellowstone pipeline have the lowest cost followed by Salt Lake City refineries via Chevron pipeline. Puget Sound refineries via the Olympic pipeline, Columbia River barge, Chevron pipeline routing have the highest transportation costs into the Spokane market. See Exhibit T.

When the combination of light product manufacturing costs and transportation costs are considered, the Billings refineries have the lowest laid in costs into the Spokane market, followed by Puget Sound refineries, followed by Salt Lake City refineries. See Exhibit U.

Q. Have new pipelines been proposed in the Western Region and, if so, how will they impact your supply-demand forecast?

A. Product pipelines from the Gulf Coast to Midland (Longhorn and Equilon) have been proposed and are under construction. There have been product pipelines proposed from either Midland, Texas Panhandle, or Four Corners area to Salt Lake City. EAI evaluated the impact of Gulf Coast spot product pricing on Salt Lake City refinery economics using 7 cents per gallon transportation costs. See Exhibit V.

In general, the impact is to make Wyoming and Montana refineries more competitive in the Salt Lake City market and the Salt Lake City refineries less competitive. Net margins of the Salt Lake City refineries decline by 70 to 80 percent making expansion or investment in these refineries very difficult. See Exhibit W. Even if the proposed

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pipelines were constructed, without expansion of the Chevron Salt Lake City to Boise segment, there would be little impact on Eastern Washington.

Q. Again, what do you conclude from the information and analyses which have been presented?

A. The demand for gasoline continues to grow across the Pacific Northwest and, specifically, Central and Eastern Washington. Indeed, recent demand growth is outpacing previous EAI forecasts. The supply sources for Central and Eastern Washington are constrained by refineries operating at high utilization rates, the Chevron pipeline operating at capacity, and high demand growth in alternative local markets. Thus, from the standpoint of analyzing regional energy networks and the supply-demand forecasts for those markets, there is a significant opportunity for an alternative supply of petroleum products to Central and Eastern Washington via a pipeline from the Puget Sound refineries.

END OF DIRECT TESTIMONY

I declare under penalty of perjury that the above testimony is true and correct to the best of my knowledge. Executed this _____ day of August, 1998.

_____
Paul D. Rolniak

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