UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Kern River Gas Transmission Company) Docket No. RP04--000

PREPARED DIRECT TESTIMONY
OF
MICHAEL D. FALK
ON BEHALF OF
KERN RIVER GAS TRANSMISSION COMPANY

Q. Please provide your name, title and business address.

A. My name is Michael D. Falk. I am Vice President, Operations, IT & Engineering of Kern River Gas Transmission Company. My business address is 2755 East Cottonwood Parkway, Suite 300, Salt Lake City, Utah 84121.

Q. When were you named to your current position?

A. I was named to my current position in March 2002 when Kern River was acquired by MidAmerican Energy Holdings Company ("MEHC").

Q. Please describe your education and experience prior to your current position.

A. I previously held the positions of Director of Operations for Williams Gas Pipeline-West from March 1998 to March 2002, and District Manager for Williams Gas Pipeline–Texas Gas from March 1992 to March 1998. I began my career at Texas Gas in 1981 as a senior engineer, working on coal gasification and tar sands projects, before moving on to pipeline design and construction engineering assignments offshore in the Gulf of Mexico and onshore along the Texas Gas pipeline system. I spent several years initiating an extensive in-line

inspection program for Texas Gas. Before joining Texas Gas in 1981, I held supervisory positions with Corning Glass Works – Consumer Products Division in Corning, NY from 1979 to 1981. I earned a Bachelor of Science degree in Chemical Engineering from the University of Notre Dame in 1979 and a Masters in Business Administration from Vanderbilt University in 1991. I also have attended a variety of advanced technical and managerial courses.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to describe Kern River's utilization of its gas turbine compressors and its program of periodic maintenance and replacement of all turbine compressor engines. This information relates to Kern River's proposal in its rate filing to revise the manner in which it depreciates its investment in the turbine compressor engines.

Q. Please describe the composition of Kern River's compression facilities after completion of the 2003 Expansion Project.

A. Kern River now operates 23 compressor units at 11 compressor stations. An additional, 24th unit is kept as a spare. All of the units, except the two at the Anschutz compressor station in Uinta County, Wyoming, and the Solar engine at Daggett, California, are gas turbine units. The two units at Anschutz are small reciprocating compressors. The Daggettt compressor is electric motor-driven.

Kern River's pipeline system thus includes a fleet of eighteen (18) Solar Mars 100 turbines, nominally rated at 15,000 horsepower (hp) each; two (2) Solar Centaur turbines, rated at 5,500 hp each; two (2) reciprocating engines, rated at 360 hp each; and one Solar electric engine, rated at 4,000 hp. The spare unit is a

15,000 hp, Solar Mars unit. The operating engines are distributed as follows on the system:

Compressor Station	Number and Type of Units
Muddy Creek	Five (5) Solar Mars 100 Turbines
Painter	Two (2) Solar Centaur 50 Turbines
Anschutz	Two (2) Ajax Reciprocating Engines
Coyote Creek	One (1) Solar Mars 100 Turbine
Salt Lake	Two (2) Solar Mars 100 Turbines
Elberta	One (1) Solar Mars 100 Turbine
Fillmore	Two (2) Solar Mars 100 Turbines
Veyo	Three (3) Solar Mars 100 Turbines
Dry Lake	One (1) Solar Mars 100 Turbine
Goodsprings	Three (3) Solar Mars 100 Turbines
*Daggett	One (1) GE/Solar Electric Compressor

*(Operated by Mojave Pipeline Operating Company on behalf of Mojave Pipeline Co. and Kern River)

Q. How does Kern River's utilization of the Solar Mars turbine compressor units differ from use of the other compressors on the system?

A. The Mars units are located at the mainline compressor stations and, therefore, generally are run at high annual utilization factors. For most of its operational history from the original commencement of service in 1992 until May 2003, Kern River's system operated at annual load factors approaching or exceeding 100% annual utilization of the system's firm summer design capacity. Since the 2003 Expansion was placed in service in May 2003, utilization factors for the Mars units have been somewhat lower, but still are much higher than those of the other compressor engines. For example, the smaller, Solar Centaur turbine units at the Painter compressor station are operated much differently. Only one of the Painter units operates at any given time and their purpose is to compress gas produced at the Painter field for injection into the mainline transmission system. The two

small, Ajax reciprocating units at the Anshutz compressor station operate in a similar manner. The electric compressor at Daggett is used to compress Mojave's gas into the Kern River-Mojave Common Facilities. It is needed only periodically, depending on prevailing pressures in the Kern River and Mojave mainlines at the Daggett interconnection and demand for deliveries of gas at delivery points on the Common Facilities downstream of Daggett.

Q. What are the current utilization factors of the Mars turbines on Kern River's system?

A. The utilization of the Mars turbines varies throughout the year and is defined as the percentage of run hours out of a total of 8,760 hours per year. For the ten-month period of May 2003 through February 2004, the average monthly utilization factor was approximately 68%, with a monthly high of 94% and a low of 40%. Utilization is anticipated to approach 83%-88% for March and April 2004. Assuming the midpoint of the aforementioned ranges, the resulting annual utilization of the Mars units for the first full year of operation of the 2003 Expansion Project will be approximately 73%.

Q. Are the Mars turbine engines subject to a regular maintenance and inspection program?

A. Yes. Gas turbine engines require periodic maintenance and inspection due to the wear and tear of ongoing operation. The limiting component of gas turbines is normally the "hot section" of the turbine. The hot section contains the combustor and the gas producer turbine blades. Other components, such as the turbine bearings, may also limit the operational life of the Mars turbine. Kern River performs semi-annual inspections on the Mars units, as well as regular minor

maintenance. Minor maintenance includes calibration of devices and if necessary, replacement of the fuel injectors, the turbine blades and gas turbine control equipment. Due to the Mars units' heavy use, it is economical and in the best interests of both Kern River and its customers to replace the Mars turbines periodically. As part of its maintenance and inspection program, when a Mars engine approaches the end of its service life, Kern River exchanges the worn unit for an overhauled turbine engine.

Q. Does Kern River overhaul the Mars turbines?

A No**.** The engine manufacturer, Solar, performs the overhaul on the exchanged turbine. Under Kern River's agreement with Solar, Kern River exchanges each worn Mars turbine for an overhauled turbine from Solar.

Q. How does an exchange of a Mars turbine affect the Kern River pipeline system?

A. The effect on the system's capacity is minimal, though it depends on which Mars unit is exchanged and varies from compressor station to compressor station. The exchanges are generally performed in a 36- to 48-hour time frame. In addition, exchanges are carefully planned to minimize the effect on the Kern River pipeline system.

Q. How frequently does Kern River exchange the Mars turbines?

A. Kern River's exchange strategy for the Mars turbines has evolved over the life of the Kern River system. In the initial years of Kern River's operations, most turbines were exchanged after 20,000 to 30,000 hours of operation ("fired hours"). During this period, Kern River's historical annual utilization factors were near 99%. This translated to exchanging each turbine engine after approximately every three years of service. Kern River's agreement with Solar at that time

provided for Mars engines to be exchanged at intervals of 30,000 fired hours; if a unit failed after more than 30,000 fired hours, Kern River was liable to Solar for additional charges.

Under our present agreement, Kern River and Solar employ an operational standard maximum life of 35,000 fired hours. Mars units are eligible for exchange at 30,000 fired hours, thus providing a window of 5,000 hours of operations to schedule and complete the exchange. Based upon our operational experience and maintenance criteria, Kern River concurs that the optimum life cycle of the Mars compressor engines is within the 30,000-35,000 hour range of the Solar agreement. Accordingly, Kern River's target for making exchanges of Mars units is at the high end of this life cycle (35,000 fired hours). However, the Solar agreement also requires Kern River to pay 1.3 times the normal exchange price if a Mars unit is exchanged after more than 35,000 fired hours. Experience teaches that the small benefit of attempting to extend the interval between exchanges past 35,000 fired hours is not justified by the cost of doing so.

Q. How frequently does Kern River anticipate exchanging turbines on a prospective basis?

A. Since our agreement with Solar provides that Kern River can incur penalties if an engine fails after more than 35,000 fired hours, Kern River will continue to closely monitor the fired-hours totals of each Mars engine and to schedule exchanges as needed to minimize its net costs of the exchanges, consistent with maintaining reliable service to its firm transportation customers.

Kern River plans to continue to exchange gas turbines approximately every 30,000-35,000 fired hours, or about once every four years, depending on the

particular compressor location. With a total of 18 Mars turbines now operating on the Kern River system, this will mean that, on average, three to five turbines per year will be exchanged during the period when the rates proposed in this case are expected to be in effect.

Q. Is Kern River's operational history representative of how frequently compressor exchanges are likely to occur in coming years?

A. Yes. However, the frequency of replacements depends on the demands placed on the system by its shippers. Those demands are hard to predict with a high degree of certainty. If the customers change their utilization of Kern River, or if they change their receipt or delivery locations, then turbine replacement intervals could vary from historical experience.

Q. Does this conclude your direct testimony?

A. Yes.

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STATE OF NEVADA)
: ss
COUNTY OF CLARK)

AFFIDAVIT OF MICHAEL D. FALK

Michael D. Falk, being first duly sworn, on oath states that he is the witness whose testimony appears on the preceding pages entitled "Prepared Direct Testimony of Michael D. Falk"; that, if asked the same questions that appear in the text of said direct testimony, he would give the answers that are herein set forth; and that affiant adopts the aforesaid testimony as his sworn, direct testimony in this proceeding.

Michael D. Falk

SUBSCRIBED AND SWORN TO before me, a Notary Public in and for the State of Nevada, this 21st day of April, 2004.

Clark Co., NV.

Notary Public

NOTARY PUBLIC
STATE OF NEVADA
County of Clark
JOHN STANTON
No: 00-36287-1
My Appointment Expires May 23, 2007