EXHIBIT NO. S-4

FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF ADMINISTRATIVE LITIGATION

EL PASO NATURAL GAS COMPANY

DOCKET NO. RP10-1398-000

DIRECT AND ANSWERING TESTIMONY

OF

COMMISSION STAFF WITNESS

KEVIN J. PEWTERBAUGH

June 28, 2011

WASHINGTON, D.C. 20426

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

El Paso Natural Gas Company) Docket No. RP10-1398-000

Summary of the Direct and Answering Testimony of
Kevin J. Pewterbaugh
Witness for the Trial Staff of the
Federal Energy Regulatory Commission

Trial Staff witness Kevin J. Pewterbaugh's direct and answering testimony, Exhibit No. S-4, presents Staff's depreciation, amortization, and negative net salvage rate proposals. His Exhibit No. S-5 contains a list of his prior testimony as well as the depreciation studies he performed. Exhibit No. S-6 contains his supporting schedules, and Exhibit No. S-7 contains his workpapers.

Mr. Pewterbaugh has provided analyses supporting a remaining economic life of 40 years from March 31, 2011, for El Paso's facilities. He has based his analysis on the gas reserves, resources, and production from El Paso's supply areas. He has also considered demand for natural gas and potential competition in relation to this remaining economic life. Mr. Pewterbaugh made an adjustment to account for interim retirements, and based on his analyses, calculated a depreciation rate of 1.60 percent for El Paso's storage facilities, and 2.22 percent for its other transmission facilities. He has also shown that El Paso witness Edward H. Feinstein's analysis contains elements, namely "major retirements" and future additions, that should not be included in a depreciation calculation. Based on Mr. Pewterbaugh's analysis, he believes that El Paso's filed for rates are acceptable, but that Mr. Feinstein's calculated higher depreciation rates are not acceptable.

Further, Mr. Pewterbaugh believes that a 2.20 percent rate for the Willcox lateral is reasonable and that its existing rate of 3.40 percent be lowered to that rate. With respect to the negative net salvage rate, he believes El Paso's proposal to increase this rate has not been justified, and that this rate should stay at its preexisting level.

A summary of Mr. Pewterbaugh's recommendations is provided in Exhibit No. S-6, Schedule No. 1.

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Prepared Direct and Answering Testimony of
Kevin J. Pewterbaugh
Witness for the Staff of the
Federal Energy Regulatory Commission

INTRODUCTION

Q. Please state your name and business address.

A. My name is Kevin J. Pewterbaugh. My business address is 888 First Street, N.E., Washington, D.C. 20426.

Q. By whom are you employed and what is your position?

A. I am employed by the Federal Energy Regulatory Commission (FERC) as a Petroleum Engineer in the Office of Administrative Litigation.

Q. Please briefly describe your educational background and training.

A. I received my Bachelor of Science degree in Petroleum and Natural Gas Engineering at The Pennsylvania State University in May 1979 and have been employed continuously by FERC since September 1979. In addition to my engineering education, I have completed three depreciation seminars given by

Depreciation Programs, Inc., a commercial organization widely recognized for its expertise in depreciation-related matters. I have also taken a course in Calgary, Alberta, Canada on natural gas reservoir engineering sponsored by Oil and Gas Consultants International, Inc. I am a member of the Society of Depreciation Professionals.

Q. What are your duties at the FERC?

A. My responsibilities include determining the appropriate depreciation rates in formal gas rate case proceedings, and providing support for such rates. In performing my duties, I have done gas supply and remaining economic life analyses and have estimated future gas production.

Q. Have you submitted testimony in any other proceedings?

A. Yes, I have submitted testimony in the rate cases shown in Exhibit No. S-5, pages 1 through 3 of 4.

Q. What particular issues do you address in this proceeding?

A. The facilities of El Paso Natural Gas Company (El Paso) consist of underground storage, non-incremental or other transmission, incremental transmission, general plant, and intangible plant. The incremental transmission is associated with El Paso's Willcox lateral. My testimony addresses the appropriate depreciation rate to be applied to each of these categories of plant. The rates I recommend are used to determine the proper depreciation and amortization expenses to be included in El Paso's cost of service. The rates I recommend are the book rates. The depreciation rates apply to the depreciable plant contained in El Paso's underground storage, transmission and general plant accounts. The amortization rate applies to El Paso's intangible plant.

My testimony also addresses the appropriate negative net salvage rate to apply to El Paso's transmission facilities.

The depreciation, amortization, and negative net salvage rates I determined for El Paso's plant were given to Trial Staff witness Carlton Steen for his use in determining the proper cost of service.

In the course of determining the appropriate depreciation rates, I determined the remaining economic life of El Paso's facilities. I determined this life to be 40 years from the end of the test period in this proceeding (March 31, 2011).

Q. Are you sponsoring any Exhibits?

A. Yes. Besides my testimony, which is designated as Exhibit No. S-4, I am sponsoring Exhibit Nos. S-5 through S-7. Exhibit No. S-5 contains a list of my prior case experience; Exhibit No. S-6 includes the schedules supporting my analysis; and Exhibit No. S-7 contains my workpapers. I have included a Table of Contents for Exhibit No. S-6 in the front of that exhibit.

Exhibit No. S-4 is divided into this introduction; my depreciation analysis for El Paso's facilities; my recommendation for negative net salvage; a discussion of El Paso witness Edward H. Feinstein's depreciation analysis; and a summary.

With respect to Exhibit No. S-6, Schedule No. 1 provides a summary of my depreciation, amortization, and negative net salvage rate recommendations. Schedule No. 2 provides a map of El Paso's facilities. I will describe each of the remaining schedules later in my testimony.

Q. Is El Paso recommending any change to its depreciation, amortization, or negative salvage rates?

A. The only change El Paso is proposing is an increase to its negative salvage rate. However, El Paso also provides support in testimony for higher depreciation rates for its underground storage and other, or non-incremental, transmission facilities, where most of its plant lies.

Q. How do your depreciation and negative net salvage recommendations compare to El Paso's proposed rates?

A. I accept all of El Paso's proposed rates except for its proposed negative salvage rate recommendations, which apply to both its other transmission and the Willcox lateral, and for its proposed depreciation rate for the Willcox lateral. I do not agree with the underground storage and other transmission rates put forth in El Paso witness Mr. Feinstein's testimony, which are higher than El Paso's filed-for rates. I will address why these higher rates are not appropriate later in my testimony. El Paso's existing, proposed, and higher rates, as well as my recommendations, are shown in Exhibit No. S-6, Schedule No. 1. The gross plant data in that schedule was provided to me by Trial Staff witness Mr. Carlton Steen.

Based on adjusted gross plant balances as of March 31, 2011, of approximately $3.4 billion, my recommendations would decrease the Company's proposed annual depreciation expense associated with the Willcox lateral by approximately $300,000, and its proposed negative net salvage expense by about $2,000,000. However, Trial Staff witness Mr. Steen will determine the actual effect on the cost of service, based on the depreciation, amortization, and negative net salvage rates I provided him and the appropriate gross plant amounts.

Q. Would you summarize why you recommend different rates than El Paso?

A. Yes. For depreciation and negative net salvage, the amount of plant that a company has to recover is spread out uniformly over the remaining life of the facilities in question. The difference in the depreciation rate for the Willcox lateral between El Paso and myself, is due to the Company's reliance on a settled rate that is based, in part, on the contract life for the shippers using this lateral (see Exhibit No. EPG-130, page 40). This is an inappropriate basis on which to calculate the Willcox lateral depreciation rate. Rather, it should be based on the remaining economic life of the facilities. Trial Staff witness Antonio Maceo will also discuss why the depreciation rate for the Willcox lateral should not be based on the life of its contracts.

With respect to negative net salvage, the difference arises from El Paso's reliance on an inappropriate method to calculate this value. I will discuss this later in my testimony.

Q. Would you summarize your differences between your calculated rates and the higher rates propounded in Mr. Feinstein's testimony?

A. The overriding reason for the difference in Mr. Feinstein's depreciation rates and my rates, other than what was discussed above, is due to the use of different remaining lives. I have used a remaining life of 40 years in calculating the appropriate depreciation rate. El Paso witness Mr. Feinstein calculates depreciation using what he calls an "average economic life". He has determined this average to be 30 years, based upon his "major retirements" theory (Exhibit No. EPG-130, page 26). He also refers to a "weighted average remaining economic life" of 28 years (Exhibit No. EPG-130, page 27, which he states relates to El Paso's facilities' ability to generate revenues. I believe both of these approaches are faulty and should not form the basis of a depreciation recommendation.

Q. Would you summarize your analysis that led to your recommendations?

A. Yes. Three main components in a depreciation calculation, exclusive of negative net salvage, are: (1) how long the facility will remain in business (the remaining economic life); (2) how much of the plant will be retired before the end of the remaining life, and what the pattern of those retirements (interim retirements) will be; and (3) what percentage of the plant is left to be recovered (the net plant). Of the above three factors, the remaining life is often the most controversial; the interim retirement calculation is generally less controversial; and the net plant percentage is the least controversial, because although it has a significant effect on the depreciation rate, the net plant is the result of booked numbers and is generally not a subject of contention among parties.

With that introduction, I determined the remaining economic life of El Paso's transmission facilities to be 40 years from the end of the test period, March 31, 2011, based upon the latest production and reserve data available at the time of the preparation of this testimony. My recommendation is based on a study that considers supply, demand, and competition. I have accepted El Paso's testimony regarding the location of its supply areas. I determined the supply life, or the length of time that reserves can support production, for El Paso's supply areas. Overall, I determined that the amount of reserves in its supply areas can support production for at least the next 40 years. Demand for natural gas, as discussed later, both in El Paso's market area and nationally, is projected to increase in the future. These findings support the remaining economic life I have used for El Paso's facilities. Further, I conclude that it is premature to shorten El Paso's remaining life based on the uncertain effects of competition. The remaining economic life is used in the calculation of the depreciation rates. Based on that remaining economic life, I calculated a depreciation rate for El Paso's facilities.

STAFF'S DEPRECIATION ANALYSIS

Q. Would you provide an overview of how you determined the appropriate depreciation rates for El Paso's facilities?

A. Yes. El Paso's facilities include both transmission and storage facilities. I believe that the storage facilities will be used as long as El Paso remains in business. In addition, El Paso has an incremental facility, the Willcox lateral. The depreciation rates I determined are designed to recover this investment over the remaining economic life of El Paso's facilities. The depreciation rate is determined from the remaining economic life, an adjustment for interim retirements, and the amount of the gross plant that is left to be recovered (net plant). The remaining economic life of the pipeline is generally the most important consideration in determining the depreciation rate. Most of this analysis goes toward determining the appropriate remaining economic life for El Paso's facilities.

In determining the remaining economic life, I first determined how long there will be a gas supply sufficient to support El Paso's operations; if there is no gas to transport, El Paso will no longer be able to provide transmission service. The number of years that there will be a sufficient supply is determined through a study involving gas production, remaining reserves (reserves that have already been discovered), and an estimate of future reserves (gas that has not yet been discovered).

After determining how many years there will be a sufficient supply, which is also called the supply life, I considered demand and competition. I have concluded that these factors will not cause El Paso to cease operations while there is still a sufficient supply. Therefore, the supply life in this case will equal the remaining economic life.

Q. Please continue with the next step after determining the remaining economic life for El Paso's facilities.

A. The next step after determining the remaining economic life is to make an allowance for interim retirements. These are retirements that will occur before the end of the remaining economic life. Because the depreciation rate is applied to the gross plant to obtain an annual depreciation expense, not accounting for these retirements would lead to an under-recovery of the Company's investment at the end of the remaining economic life.

Consider a simple example to illustrate this: a new company has a total plant investment of $10,000. It was determined that its plant has a four-year life. The depreciation rate would be 25.00 percent (recovering 100 percent of the investment over 4 years). The annual expenses over the four years would be $2,500, $2,500, $2,500, and $2,500 for a total of $10,000 at the end of the fourth year, resulting in the full recovery of the plant investment by the end of its life. If, however, there was a $1,000 retirement at the end of the first year, the annual expenses over the four years would be $2,500, $2,250 (25.00 % x $9,000), $2,250, and $2,250, for a total of $9,250 at the end of the fourth year, resulting in an under-recovery of the plant investment by the end of its life of $750. Therefore, retirements are accounted for in the depreciation calculation so that their occurrence will not cause the plant investment to be under-recovered at the end of the remaining life.

After determining the allowance for interim retirements, the depreciation rate is calculated based on the percentage of the Company's plant that has not yet been recovered.

Q. What is the basis of your depreciation recommendation?

A. I have developed my recommendation on the basis of my analysis, which is premised on the Commission's Uniform System of Accounts for Natural Gas Companies definition of depreciation, and guidelines set out in the opinion rendered in the United States Court of Appeals for the District of Columbia Circuit in Memphis Light, Gas and Water Division v. Federal Power Commission (Memphis), 504 F.2d 225 (1974).

The Commission's Uniform System of Accounts for Natural Gas Companies defines depreciation as:

> the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of gas plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and requirements of public authorities, and, in the case of natural gas companies, the exhaustion of natural resources. (Emphasis added.)

Consistent with this definition, service value (original cost less net salvage) should be allocated according to the total number of service units, such as Mcf (thousand cubic feet) of gas or units of time. The transportation of service units of gas, or passage of service units of time, represents the loss in service value, and that loss is premised on the concept that as the number of service units diminish, the service value of depreciable property also diminishes until it completely expires.

In the Memphis decision, the Court stated:

> In order to be "just and adequate" a reserve life depreciation rate must be based upon the useful life of the particular property involved. We therefore believe that it is the Commission's obligation to make some reasoned estimate of the useful life of the property here involved, 43/ even though to do so would no doubt require an estimate of future reserves. We realize that such a prognostication would necessarily be only an estimate, but at least the Commission would thereby attempt to ascertain how the gas shortage had affected the useful life of this property.
>
> 43/ It is possible that insufficient reserves could have a greater effect on one type of company property, or property located in one area, than on other property. In such a case, the Commission could arrive at a composite depreciation rate, taking into account potentially differing useful lives, rather than as here, a uniform rate system wide. (504 F.2d at 235 (emphasis by single underline in original; emphasis by double underline added, which highlights the requirement of an estimate of future reserves)).

Q. Is remaining economic life the same as useful life?

A. In this context, the terms can be considered synonymous. Remaining economic life is the period, from a given point in time, during which property continues to provide service. As I am using the term, remaining economic life is defined by nonphysical reasons for retirement such as exhaustion of supply or lack of demand.

Q. Is Mr. Feinstein's term "average economic life" equivalent to the term "remaining economic life"?

A. No. Mr. Feinstein uses the term "average economic life" to refer to his concept that some of El Paso's major facilities will have a remaining economic life of some length of time, while other of its major facilities will have a remaining economic life of some other length of time. Interestingly, Mr. Feinstein states that El Paso's facilities do not actually have to be retired to be considered retired for purposes of his analysis (Exhibit No. EPG-130, page 29). This is convenient because this approach is not supported by reality.

To be clear, Mr. Feinstein's term, average economic life, should not be confused with the terms "economic life", or "remaining economic life", as those terms have been used at the Commission. His term also should not be confused with the term "Average Remaining Life", or ARL, a term of art in depreciation, which I will explain below.

Q. Please continue.

A. Average remaining life, which is used in the depreciation calculation, but not in the remaining economic life determination, is an adjustment to the remaining economic life to account for interim retirements, which are retirements that occur before the end of the remaining economic life.

Q. What depreciation approach did you use to determine the appropriate depreciation rate for El Paso's other transmission and underground storage facilities?

A. I used the Straight-line Method, Remaining Life Technique (straight-line method) in my depreciation analysis, which is typically used in calculating the proper depreciation rate for interstate natural gas facilities.

Q. What is the straight-line method of depreciation?

A. The straight-line method is designed to recover the investment in equal annual installments over the useful life or the remaining economic life of the facilities, and is based on service units of time. This method is used to calculate a depreciation rate based on the remaining economic life of the asset to be depreciated. This rate is then applied to the depreciable base. Another name for the depreciable base is the gross plant (although land, which is not depreciable, must be removed from gross plant for depreciation purposes). The straight-line method allocates the recovery of the gross plant uniformly over the asset's remaining economic life, which results in a uniform charge to each generation of ratepayers.

Average service life (ASL) and average remaining life (ARL) are terms associated with the straight-line method. ASL applies to the average service life expectancy of a group of assets at installation when all units are new. The ARL applies to the average remaining life expectancy of a group of assets at any point in time after the date of initial installation.

Q. What is the depreciation formula used to calculate depreciation rates using the straight-line method?

A. The depreciation rate using the straight-line method is derived by dividing the percent of the net plant left to be recovered by the ARL of the facility. The ARL will be discussed later. The actual depreciation formula is given in Exhibit No. S-6, Schedule No. 3.

For El Paso, an important factor in determining the proper depreciation rates is the ARL. The ARL is determined from consideration of both physical and economic factors, and is itself dependent on the remaining economic life determined for the Company. In my analysis, described below, I first determined the remaining economic life due to economic factors; then I determined the ARL. Not all units of plant are expected to remain in service throughout the remaining economic life of the facility as a whole; some of the units will be retired early due to such factors as wear and tear or actions of the elements. The ARL takes these factors into account. If these factors are not accounted for, then the depreciation rate in the future will be applied to a smaller gross plant than that for which it was designed, resulting in a smaller annual expense, and ultimately, an under-recovery of the Company's investment. It is the ARL, not the remaining economic life, which is used in the depreciation formula to determine the depreciation rate. Mr. Feinstein agrees with this depreciation principle, but then adds on top of it his "major retirement" theory, which is different from, and should not be confused with, this standard depreciation concept.

Q. Mr. Pewterbaugh, please describe El Paso's facilities as they relate to your study.

A. El Paso's system includes over 10,000 miles of natural gas transmission pipelines, stretching from California to Texas, with most of the miles of pipe in Arizona, New Mexico, and Texas, with less than 100 miles each in California, Colorado, and Oklahoma. The above information is taken from El Paso's 2010 <u>FERC Form No. 2: Annual Report of Major Natural Gas Companies</u> (Form No. 2). A map of El Paso's system was included as Exhibit No. S-6, Schedule No. 2.

El Paso's facilities also include one underground storage facility, Washington Ranch, located in southeast New Mexico. In addition, its facilities also include the Willcox Lateral, located in southeast Arizona and running south to the Mexican border.

Q. What is the general approach you used in determining the remaining economic life of El Paso's facilities?

A. The general approach I used in determining the remaining economic life for El Paso's facilities was first to determine the supply life. For El Paso's transmission facilities, I determined the supply life for the areas from which El Paso receives supply. I accepted the primary and secondary sources that El Paso used in its analysis. I used the supply life from these areas as representative of the supply life that El Paso would realize from these areas.

To determine the supply life, I obtained historical production and remaining reserve data for each area. To remaining reserves, I added an estimate of undiscovered reserves that will be discovered and produced in the future, to get a total remaining reserve estimate. As these reserves are produced in the future, they eventually become exhausted. When that happens, the supply life of that supply area is over. Based on my analysis, El Paso can remain in business, from a supply perspective, at least for the next 40 years.

I next examined demand and competition to determine if their effect on the supply life would shorten the actual remaining economic life of El Paso's facilities. I determined that demand and competition will not negatively impact, or shorten, the supply life. In other words, supply life in this instance will be synonymous with remaining economic life.

Based on the above, I determined that the remaining economic life of El Paso's facilities would be 40 years from March 31, 2011.

Q. What are the specific steps in your analysis?

A. In following the above approach for determining the remaining economic life of the El Paso's facilities, my testimony is divided into six parts:

(1) identifying the supply areas involved,

(2) obtaining historical production, remaining reserves, and undiscovered reserves by area,

(3) determining the supply life of El Paso's facilities, and

(4) discussing demand and competition, and determining the remaining economic life.

After the remaining economic life is determined, the depreciation rate is determined in the following two sections:

(5) adjusting the remaining economic life for interim retirements, and

(6) calculating the depreciation rates.

Part (1) Identifying the Supply Areas Involved

Q. Where does the gas transported by El Paso originate?

A. El Paso receives the gas it transports from the Permian, Palo Duro, and Anadarko Basins, located in the Mid-Continent area in eastern New Mexico, Texas, Oklahoma, Colorado, and Kansas; the San Juan Basin, located in the Rocky Mountain area in western New Mexico and Colorado; and other supply in the Rocky Mountain area, in Colorado, Utah, and Wyoming. In addition, El Paso can also receive gas from California. About half of El Paso's throughput is delivered to California; about one quarter of its throughput is delivered to Arizona, with the remainder serving other markets.

Part (2) Obtaining Historical Production, Remaining Reserves, and Undiscovered Reserves by Area

Q. Mr. Pewterbaugh, where did you obtain the historical production and remaining reserves data you used for the supply areas in your analysis?

A. I obtained production and remaining reserves data for El Paso's domestic supply areas from an annual publication from the Energy Information Administration (EIA), U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves (EIA Annual Report); this data is as of December 31, 2008, which I used to correspond to the most recent data from the Potential Gas Committee (PGC), which I will discuss below.

Historical production and remaining reserve data for each area is provided in Exhibit No. S-6, Schedule No. 4. The EIA provides data on a state and sub-state basis. For each supply area, I also give the EIA areas I used to represent them.

Q. Where did you obtain the undiscovered reserve information used for the supply areas in your analysis?

A. Information on undiscovered gas was obtained from the Potential Gas Committee (PGC), which is an independent source of undiscovered gas levels. According to the PGC, "The objective of the Potential Gas Committee is to provide assessments, based on expert knowledge, of the potential supply of natural gas, which, together with a determination of proved reserves of natural gas, make possible an appraisal of the nation's long-range gas supply." (Potential Supply of Natural Gas in the United States, Report of the Potential Gas Committee (December 31, 2008), page iii). The PGC publishes its estimates biennially in its report, Potential Supply of Natural Gas in the United States. They have prepared and published estimates for over 30 years. This report provides the PGC's estimate of undiscovered gas in existing fields, and from new field discoveries. The PGC's most current report is as of December 31, 2008.

The PGC refers to its estimates as "potential resources", and states that its estimates "represent potential natural gas resources expected that, in the judgment of its members, can be recovered by future drilling under the conditions of:

1. adequate economic incentives in terms of price/cost relationships, and
2. current or foreseeable technology."

It also states that "No consideration is given whether or not this resource will be developed; rather, the estimates are of resources that could be developed if the need and economic incentive exist." (Potential Supply of Natural Gas in the United States, Report of the Potential Gas Committee, December 31, 2008, page 371.)

I have used the term undiscovered reserves instead of undiscovered resources to refer to the estimates given by the PGC. This term does not mean that undiscovered reserves have achieved the same level of certainty as discovered or remaining reserves, but in the context of my depreciation analysis, I consider undiscovered reserves, to the extent I use them, to be gas that will be discovered and produced.

Q. Mr. Pewterbaugh, what categories of the PGC's estimates did you use?

A. The PGC divides its estimates into three categories: probable, possible, and speculative. Probable resources refers to undiscovered gas connected with known fields, possible resources refers to undiscovered gas connected with known productive formations, and speculative resources refers to undiscovered gas connected with formations that have not yet proven to contain natural gas resources. A definition of these categories is given in Exhibit No. S-6, Schedule No. 5. I have used the probable and possible categories in my analysis.

The PGC gives three estimates for each of the above categories: "minimum", "maximum", and "most likely". I have used the "most likely" estimate in my analysis. The PGC states of the "most likely" category:

> The most reasonable estimate of the existence of traps and accumulations and the most reasonable assessment of source bed, yield factor and reservoir conditions. The probability is highest that these conditions prevail in the estimator's judgment and that the estimated quantity of gas resources would be present. Such conditions lead to the most likely estimate of the resource.
>
> Potential Supply of Natural Gas in the United States, Report of the Potential Gas Committee, December 31, 2000, page 192.

Q. What is the level of the PGC estimates that you used for undiscovered gas for each of El Paso's supply areas?

A. The estimates of undiscovered gas that I used for each area are also shown in Exhibit No. S-6, Schedule No. 4.

Q. Did you consider Liquefied Natural Gas (LNG) in your analysis?

A. Yes. El Paso witness Mr. Feinstein discusses LNG in Exhibit No. EPG-130, pages 25 and 26. He has included 1 Bcf/day available for El Paso to transport. He believes that, depending on the location of where the LNG will enter El Paso's system, the useful lives of some facilities "will be extended" while others "may be lessened." I believe that at this time, LNG is not a major factor impacting the useful life of El Paso's facilities. My remaining economic life of 40 years is based on El Paso's supply apart from the influx of LNG supply El Paso included in its estimate of gas available to it for transport.

Q. What is the purpose of collecting the production, remaining reserve and undiscovered resource information discussed above?

A. The remaining reserve and undiscovered resource information are representative of the total supply available to go through El Paso's facilities. The production information is representative of the throughput that will go through El Paso's facilities and is used to determine how long it will take to exhaust that total supply. This information will be used to determine the supply life of El Paso's facilities.

Part (3) Determining the Supply Life of El Paso's Facilities

Q. How did you determine the supply life of El Paso's facilities from the production and reserve data discussed above?

A. Dividing current annual production into total remaining reserves results in the number of years that that level of supply can support current production. Generally speaking, that resulting number of years will be low, as production declines in the future, leading to it taking longer to exhaust the reserve base. An exception is the Rocky Mountain area, where production is expected to increase for a number of years yet before going into decline. However, with the large number of years resulting from dividing current production into total remaining reserves, a more precise approach of extrapolating production into the future to arrive at the supply life is not necessary.

Q. What are the results for the supply life for each of the supply areas?

A. The supply life, from end of year 2008, for each area is also shown in Exhibit No. S-6, Schedule No. 4. Subtracting 2.25 years from those values gives the supply life for El Paso from the end of the test period. The supply lives for the different areas range from 26.04 years for the Barnett Area in Texas to 78.95 years for the Eagle Ford Area in Texas. The weighted-average supply life for all of El Paso's supply sources is 45.25 years.

Q. What do you conclude about the remaining life from this data?

A. I conclude that 40 years is a reasonable remaining life to use for El Paso's facilities based on supply. While natural gas is a finite resource, there is still a significant amount estimated to be discovered, and I believe there will be enough gas to keep El Paso operating for at least the next 40 years.

Part (4) <u>Discussing Demand and Competition, and Determining the Remaining Economic Life</u>

Q. What market areas does El Paso serve?

A. As already mentioned, about half of El Paso's throughput is delivered to California; about one quarter of its throughput is delivered to Arizona, with the remainder serving other markets.

Q. Why is demand considered in your analysis?

A. Factors other than supply can affect the remaining economic life of a pipeline. While it is true if there is no supply to transport or store, there is no business, it is also true that if there is no demand for the gas, there is likewise no business. A falling demand for gas could have a negative effect on the life of a facility.

Q. What are your findings regarding the effect of demand on the future life of El Paso's facilities?

A. Most of El Paso's throughput serves California or Arizona. The EIA projects gas demand to grow in the regions encompassing these markets from 4.46 trillion cubic feet (Tcf) in 2009 to 5.10 Tcf in 2035. The EIA also projects national gas demand to grow in the future, from 23.31 quadrillion Btu (QBtu) in 2009, to 27.24 QBtu in 2035. I have shown the EIA's estimates in Exhibit No. S-6, Schedule No. 6. I would note that in determining the remaining economic life of a pipeline for depreciation purposes, I am concerned with long range estimates of supply and demand, not short term fluctuations in a pipeline's throughput.

With long-term demand projected to increase, I believe it is reasonable to assume that demand will not negatively impact the remaining economic life of El Paso's facilities.

Q. Please discuss the expected impact of competition with respect to El Paso?

A. I believe it is premature to shorten El Paso's remaining economic life for the speculative effects of future competition. Competition is not synonymous with going out of business. The Commission wants a competitive environment, the purpose of which is to provide a natural check on transportation rates, not to drive a pipeline company out of business. Also, with long-term demand expected to increase, I believe that if any additional pipelines are built, they will be used in part to meet the additional demand, leaving enough demand for El Paso's facilities to serve to remain in business.

El Paso also has an advantage over new pipeline projects, if they are built, in that, all other things being equal, it would be more expensive to transport gas on a new project than on El Paso. This is because the new project would have to recover 100 percent of its investment, whereas El Paso has already recovered about 35 percent of its plant investment, meaning it only has about 65 percent of this investment left to recover. (This can be seen on Exhibit No. S-6, Schedule No. 10.)

Q. Do you have any other information with respect to competition?

A. I note that the EIA predicts natural gas demand to grow, even considering other fuels such as coal and nuclear power. As explained by the EIA:

> Lower capital costs, shorter construction lead times, higher efficiencies, and lower emissions give gas an advantage over coal for new generation in most regions of the United States. Natural-gas-fired facilities are less capital-intensive than coal, nuclear, or renewable electricity generation plants. Growth in natural gas use for electricity generation is also expected to be spurred by increased utilization of existing gas-fired power plants and by the environmental advantages of natural gas. (Annual Energy Outlook 2000, Energy Information Administration, December 1999, page 76).

Q. El Paso witness Gregory W. Ruben (Exhibit No. EPG-183) discusses market risks, competitive pressures and general economic conditions in El Paso's market area. Do you have any observations about his testimony?

A. Yes. Again, competition is not synonymous with going out of business. Mr. Ruben discusses some of the actions El Paso is pursuing in response to the competitive pressures he delineates (Exhibit No. EPG-183, page 42). Further, the general economic conditions he discusses are current factors (Exhibit No. EPG-183, pages 10 and 11), while the determination of the useful life of a pipeline for depreciation purposes needs to consider the long-term view.

Q. What do you conclude with respect to the remaining economic life of El Paso's system?

A. I conclude that with the supply life I calculated, the demand projections given above, and considering my discussion of competition, El Paso's supply life will not be shortened by demand or competition. Therefore, the supply life will equal the remaining economic life for El Paso's facilities, which, as stated previously, is 40 years.

Part (5) <u>Adjusting the Remaining Economic Life for Interim Retirements</u>

Q. What are interim retirements?

A. Interim retirements are those retirements which occur before the end of the remaining economic life and the exhaustion of supply. Some examples of occurrences that can cause interim retirements include physical forces such as wear and tear, and action of the elements, which could reduce the ability of some of the facilities to remain in service over the entire remaining economic life of the facilities as a whole.

In determining the depreciation rates for El Paso's facilities, I used a remaining economic life of 40 years as the maximum life-span, and adjusted this remaining economic life for early (interim) retirements.

Q. Why did you account for interim retirements?

A. The depreciation rate is applied to the gross plant to determine the annual expense. If, over time, the gross plant is reduced because of interim retirements, the annual expense will also be reduced. As I showed previously with a simple example, if interim retirements were not accounted for, the gross plant would not be fully recovered at the end of its remaining economic life.

Q. How did you account for interim retirements?

A. I accounted for interim retirements of El Paso's facilities by using an ARL. I derived the ARL through use of Iowa-Type Survivor Curves (Iowa curves). These curves were derived from a statistical analysis of historical retirement patterns, and are used to predict when plant will be retired in the future. With an Iowa curve and an estimated average age of the facilities, along with the remaining economic life, I determined an ARL of all plant (both that which would be retired early and that which would not be retired until the end of the remaining economic life). This ARL accounts for interim retirements, and is naturally shorter than the remaining economic life of the facilities as a whole of 40 years. It is the ARL--<u>average</u> remaining life, rather than the remaining economic life of 40 years, that goes into the equation for calculating depreciation rates, so that the full investment will be recovered at the end of the 40-year period.

Q. Could you explain how Iowa curves are used in estimating the ARL of El Paso's facilities?

A. Iowa curves demonstrate the survivor characteristics of property from installation to retirement of the last unit. They are used to project how property will be retired in the future. The curves are defined by a survivor pattern and an average service life (ASL). The survivor pattern can also be thought of as a retirement pattern as they are the inverse of each other. The ASL is the average of how long all the facilities of a group are expected to last when they are new. The ARL is the average of how long the facilities of a group are expected to last when they are not new. The ASL, along with the survivor/retirement pattern, uniquely identifies the Iowa curve. From this curve, the ARL is determined. Exhibit No. S-6, Schedule No. 7, contains an explanation of Iowa curves as well as an example of an Iowa curve.

The more retirement experience there is regarding a particular class of plant, the more confidence one can have in the Iowa curve selection. However, when economic considerations cause a concurrent retirement of all units, the curve selection becomes less critical. This concurrent retirement results in the Iowa curve being truncated. This truncation occurs at the end of the remaining economic life. As used above, an economic consideration is one that causes retirement of the facility before it would be retired due to non-economic factors such as wear and tear. Physically a pipeline may be able to last 100 years or more. However, for El Paso, I believe that a lack of supply will end the life of the Company's facilities before non-economic factors would force it to cease operations.

An Iowa curve is designated by a number and a letter-number combination, for example, 65 R2. The 65 refers to the ASL of the plant. It means that, on average, new plant will last 65 years. With respect to the designation, R2, the "R" refers to a particular class of retirement patterns, while the "2" refers to the shape of the retirement patterns. The shorter the ASL, the shorter the ARL, and the higher the depreciation rate.

Q. How did you arrive at your curve choices?

A. I used the same storage survivor curves that I used in Southwest Gas Storage Company, Docket No. RP07-34-000. For the transmission plant survivor curves, I used the same curves as I used in Kern River Gas Transmission Company, Docket No. RP04-274-000. For each of El Paso's accounts, I used the same curves that were found applicable for the same accounts in those other proceedings.

Q. How did Mr. Feinstein arrive at his curve choices?

A. It is not clear from his testimony (Exhibit No. EPG-130, pages 35 and 36) how he arrived at his curve choices. The curves I used for each account, and the curves Mr. Feinstein used for each account, are shown in Exhibit No. S-6, Schedule No. 8.

Q. How did you determine the ARL from the Iowa curve?

A. The ARL for a particular account is dependent on the age of the plant, as well as on the Iowa curve selected. From the average age of each account I determined the average age for an entire function, by calculating the weighted average for that function, basing the weighting on the dollar amount of plant in each account. I performed a similar calculation to obtain the weighted average ASL for each function.

Next, I generated an Iowa Curve table using the weighted average ASL, which was approximately 52 years for the transmission function, with truncation of the curve at the remaining economic life of 40 years. This table provides the ARL for the plant based on its average age in years. For the transmission plant, the ARL was 29.1 years. The table for this Iowa Curve is given in Exhibit No. S-6, Schedule No. 9. The Iowa Curve table for the storage function is given in my workpapers. Exhibit No. S-6, Schedule No. 10, gives the Iowa curve and ARL that I used for the storage and transmission functions.

I would point out that the Iowa Curve tables use a 1/2 year convention. For example, the observation year, or average age, of 10 on the table in Exhibit No. S-6, Schedule No. 9, actually refers to an average age of 9.5 years. The corresponding ARL for plant of this age would be 34.3 years.

Part (6) Calculating the Depreciation Rates

Q. How did you calculate the depreciation rates for El Paso's facilities?

A. The calculation of the depreciation rate is straightforward. It is calculated by dividing the ARL into the percent of the gross plant left to be depreciated. The gross plant left to be depreciated is also called the net plant. The net plant is the result of subtracting the accrued depreciation from the gross plant. Accrued depreciation and gross plant data (as of March 31, 2011, the end of the test period), were provided to me by Trial Staff witness Mr. Steen. Factors in the depreciation calculation and the resulting depreciation rate are also given in Exhibit No. S-6, Schedule No. 10.

Q. How did you determine the appropriate depreciation rates for El Paso's general plant?

A. I determined the ASL that corresponds to El Paso's existing depreciation rate for each account. General plant is often depreciated on an ASL, rather than an ARL basis that is used for the storage and transmission functions. In the ASL approach, also called the whole-life approach, the depreciation rate is based on the ASL, regardless of the age of the plant or the amount that has been accrued for that plant. This makes practical sense for plant that experiences a rapid turnover, in that one year it may be almost fully accrued and then the next year, as old plant is retired and new plant added, it is almost fully not accrued. I believe the ASL's I determined for these accounts are reasonable, and therefore, the existing depreciation rates are reasonable. I also believe the amortization rates for El Paso's intangible plant are reasonable and I am also recommending no change to them.

<u>Willcox Lateral</u>

Q. El Paso witness Mr. Feinstein used contract life as support for his depreciation rate proposal for the Willcox lateral (Exhibit No. EPG-130, pages 39 and 40). Do you believe that this is valid support?

A. No, I do not believe contract life is a valid basis for determining depreciation for the Willcox lateral. While a contract can give an indication of the minimum life of a company, it should not take the place of a depreciation study to determine the remaining life of that company's facilities.

Q. What are the problems with using contract life to determine depreciation?

A. There are two problems with using contract life. Contracts can be renewed, extended, or replaced by another contract. Using the contract term as the remaining life of a facility, without allowing for these possibilities, could significantly understate the remaining life of that facility.

Depreciation rates based on contract life also violate the intent of a properly calculated depreciation rate, which is that no generation of ratepayer should be unfairly burdened with the facilities' cost with respect to other generations of ratepayers. This would happen if the depreciation rates were based on the initial contract life but the facilities remained in service after that initial contract ended. In such a situation, later ratepayers would not pay any depreciation component for the use of the facilities. If I sign a two-year contract with a cellular phone carrier, for example, it does not necessarily follow that at the end of two years that my cellular phone would be useless. This is because I can renew my contract. In the same way, contracts between pipelines and shippers can be renewed, or replaced with another contract.

Q. Is contract life included in the Uniform System of Accounts for Natural Gas Companies (USOA) definition of depreciation, or in the Memphis decision?

A. No, the USOA definition of depreciation does not mention contract life, nor should it. As given earlier, the Commission defines depreciation as:

> the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of gas plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and requirements of public authorities,

> <u>and, in the case of natural gas companies, the exhaustion of natural resources.</u> (Emphasis added.)

Contract life is not mentioned. Also, the <u>Memphis</u> decision, referenced earlier, refers to the useful life of the facility involved, not its contract life. In this decision, the Court stated: "[i]n order to be "just and adequate" a reserve life depreciation rate must be based upon the <u>useful</u> life of the <u>particular property</u> involved." (Underlining in original; double underlining added.) This is different than the contracts associated with the facility or property.

Q. Are there any Commission Orders with respect to using contract life in determining depreciation?

A. Yes. The Commission has upheld an administrative law judge's decision rejecting the determination of economic life solely on contracts. In <u>Trailblazer Pipeline Company</u>, 15 FERC ¶ 63,046 at 65,174 (1981), <u>aff'd</u> 18 FERC ¶ 61,244 (1982), <u>reh'g denied</u>, 19 FERC ¶ 61,115 (1982), the administrative law judge stated:

> Applicants' suggestion that the economic life of the Trailblazer System should be determined solely by reference to the gas reserves represented by outstanding sales contracts is unavailing.

The presiding administrative law judge also stated:

> Applicants' second argument, that a higher depreciation rate is needed to maintain a cash flow sufficient to service debt, is

> also unpersuasive. First, depreciation rates are based upon the economic life of the facilities involved, not on a company's cash flow needs. (Emphasis added)

Also, in even stronger language, the administrative law judge in Wyoming Interstate Company, Ltd. (WIC) (67 FERC ¶ 63,015 at 65,090 (1994)) stated:

> The Court has rejected the use of the expiration date of firm contracts as the end of the useful life of a pipeline's facilities as a worst case scenario approach which would not fall within the zone of reasonableness standard as described by the mandates within Memphis.

Even though the WIC order affirming the administrative law judge was later vacated as moot as a result of a settlement, it still shows the Commission's thinking on the matter. Consequently, it is clear that contract lives should not be used as a basis in determining depreciation rates.

Q. Has the Commission ever accepted using the contract life as the depreciable life of a facility?

A. Yes, the Commission did so in a Kern River Gas Transmission Company proceeding. Staff witness Antonio Maceo (Exhibit No. S-8) will discuss why El Paso's Willcox lateral does not meet the conditions in that order for basing its depreciation rate on its contract life.

Q. How did you determine the depreciation rate for El Paso's Willcox lateral?

A. As discussed above, contract life is not an appropriate basis upon which to determine a depreciation rate. El Paso did not provide the level of accrued depreciation this lateral has reached, which is an important factor in the calculation of the appropriate depreciation rate. Mr. Feinstein estimated that this function is almost as accrued as El Paso's other transmission function. I believe using the same rate for the Willcox lateral as for El Paso's other transmission plant is reasonable.

NEGATIVE NET SALVAGE

Q. Is the term "negative salvage" the same as "negative net salvage"?

A. The term "negative salvage" has been used interchangeably with the term "negative net salvage." However, the terms are not technically the same. When an item is retired, it may experience negative salvage (the cost of retiring the item) or positive salvage (value received from the item, for example, its scrap value), or both. Both should be reflected in rates, therefore, the net salvage is used. When the net salvage is negative, the proper term is negative net salvage.

Q. What negative net salvage rate do you propose for El Paso's transmission facilities?

A. I propose that the existing negative net salvage rate of 0.12 percent, rather than El Paso's proposed rate of 0.18 percent, be applied to El Paso's transmission facilities. My proposal results in a decrease from El Paso's proposal of about $2,000,000 annually. While I believe that El Paso will experience some negative net salvage, from final abandonment costs at any rate, I do not believe that it has justified its proposed increase in this rate.

Q. How did El Paso attempt to support its increase in its negative net salvage rate?

A. El Paso based its increase in its negative net salvage rate on its actual retirements over the last five years. I have two problems with this approach. First, five years is not a long period of time over which to obtain a sample for plant which, on a physical basis, can last for 65 years or more. Second, and I believe more importantly, in the last five years, El Paso has retired only about five percent of its plant. From this small sample size, it is estimating what the negative net salvage of the other 95 percent of its plant will be. I do not believe that using such a small sample as representative of the overwhelming majority of its plant should be accepted.

<u>DISCUSSION OF EL PASO WITNESS EDWARD H. FEINSTEIN'S DEPRECIATION APPROACH</u>

Q. Do you agree with Mr. Feinstein's approach for arriving at his depreciation recommendations?

A. No, Mr. Feinstein includes factors in the depreciation calculation that should not be included.

Q. What factors does he include in his calculation of depreciation that should not be included?

A. Mr. Feinstein adjusts his remaining life for what he terms "major retirements", arriving at an "average economic life" by which to determine the depreciation rate. He discusses his major retirement theory in Exhibit No. EPG-130, beginning on page 26.

Q. Do you agree with Mr. Feinstein's "major retirement" approach?

A. No. Not only does Mr. Feinstein assume that major retirements will occur, he assumes that they will occur in lockstep with the future deliverability estimate (Exhibit No. EPG-130, pages 27 and 28 and Exhibit No. EPG-141). This approach is not reasonable, nor is it supported by the data.

Q. Why do major retirements not occur as Mr. Feinstein is assuming?

A. Reasons why a facility might remain in service in the face of decreasing throughput are: (1) so that service will not be interrupted when another facility is unavailable due to maintenance or testing, (2) as reliability insurance against outages at another facility, (3) to meet peak day deliveries--even if average annual throughput goes down, a pipeline is designed for its peak day, and it still needs to be able to meet its peak day deliveries, and (4) against the possibilities of throughput again increasing. This is something a pipeline presumably would seek to try to bring about--El Paso witness Ruben stated, "EPNG continually tries to develop new growth opportunities and attract new customers." (Exhibit No. EPG-183, page 42, lines 8 and 9). In addition, the projected supply deficiencies may not occur as projected. As discussed above, I believe additional supply will be discovered and produced.

But perhaps the best reason is that the evidence does not support Mr. Feinstein's position of retirements going in lockstep with declines in production. This position does not make sense. For example, consider a pipeline 100 miles long from supply source to market. Suppose this pipeline suffered a 10 percent drop in throughput. Under Mr. Feinstein's scenario, that pipeline would retire 10 percent of its plant, or 10 miles of its pipeline. The result would be that the pipeline would end 10 miles short of its market. I think this is unrealistic. Mr. Feinstein apparently tries to account for this inanity by stating, "It is not necessary that an actual physical retirement take place in order to qualify a facility as underutilized in the determination of the economic life of the EPNG system."

(Exhibit No. EPG-130, page 29, lines 3 through 5). Apparently, facts are secondary in importance to the theory.

Q. What data does he use to support his major retirement idea?

A. Beginning on page 30 of his Direct Testimony (Exhibit No. EPG-130), Mr. Feinstein cites four what he calls major examples. First, he cites a Trunkline Gas Company retirement of a 700-mile loop line. This is 700 miles versus an estimated 207, 848 miles of onshore, lower 48 States, interstate natural gas pipeline, according to the EIA (<u>Estimated Natural Gas Pipeline Mileage in the Lower 48 States, Close of 2008</u>). The miniscule percentage of this retirement does not support his "major retirement" approach.

His next example is a Trans-Northern Pipelines Inc. lateral. However, the majority of El Paso's facilities are main transmission lines, not lateral lines.

His third example is a Florida Gas Transmission Company (FGT) segment, its South of MOPS Facilities. This consisted of 70 miles of pipeline and two compressor units. While these facilities were abandoned by FGT, they were bought by Crosstex Energy Services, Ltd. (Crosstex) for use in intrastate natural gas transportation. Further, while Mr. Feinstein states the facilities were sold at "a fraction of their replacement cost or original cost", according to the Commission Order approving this abandonment, FGT proposed to record a *gain* on the sale. In addition, the Order states that "The South of MOPS facilities were constructed and used to satisfy FGT's sales obligations. FGT no longer purchases supplies to be shipped on the facilities and, consequently, the firm throughput on the line has ceased." (99 FERC ¶ 62,052 (2002)). I do not believe Mr. Feinstein mentioned El Paso no longer being a merchant of natural gas as a cause for his major retirement position.

Mr. Feinstein's fourth example is a Mississippi River Transmission Corporation (MRT) abandonment of about 307 miles of pipeline and two compressor stations. The reason given in the application for abandonment was "deteriorated and obsolete facilities and to ensure the reliability of its Main Line System" rather than underutilization (<u>Abbreviated Application for Abandonment of Facilities</u>, Docket No. CP04-334-000, May 7, 2004). I do not believe this is a compelling reason for applying the major retirement theory to El Paso's facilities.

Q. What is the result of including these fabricated major retirements?

A. The result is an inflated depreciation rate. Mr. Feinstein states correctly that "An important part of regulatory depreciation is the need to maintain long-term intergenerational equity among users of EPNG's pipeline system." (Exhibit No. EPG-130, page 32, lines 5 and 6). Including his "major retirements" in calculating depreciation, however, would violate this tenet by burdening current ratepayers with repaying an inequitable portion of the Company's investment. His false “major retirements” do not exist--indeed, he states they don't have to exist (Exhibit No. EPG-130, page 29, lines 3 through 5)--and they should not be factored into the depreciation calculation.

Q. What would be the result of Mr. Feinstein's analysis if he did not use his major retirement theory?

A. The result would be that he would not be able to support the higher rates he calculates.

Q. What other factors does Mr. Feinstein incorrectly include in his depreciation calculation?

A. Mr. Feinstein includes three years of future plant additions in determining his depreciation rate. These costs are outside the test period and should not be included. Mr. Feinstein is using outside the test period plant additions, that may not be realized, to improperly affect the depreciation rate calculation.

Further, the Commission has rejected the use of future additions in determining depreciation rates as discussed below. In Indiana & Michigan Distributors Association and City of Auburn, Indiana v. Indiana Michigan Power Company, Docket No. EL88-1-003; Indiana Michigan Power Company, Docket Nos. ER88-31-001 and ER88-32-001, Opinion No. 373; Opinion and Order on Initial Decision, 59 FERC ¶ 61,260 at 61,969 (1992), the Commission stated:

> We find that the presiding judge correctly rejected Indiana Michigan's revised 4.61 percent rate, which is based on all future plant additions and retirements through the year 2009 in addition to the existing plant in service. He correctly noted that such cost estimates are speculative. Furthermore, in Opinion No. 165, we rejected a similar depreciation study which included future additions and retirements. [Footnotes omitted.]

Also, the Commission's Uniform System of Accounts for Natural Gas Companies (USoA) definitions of depreciation and service value do not mention future facilities (See 18 CFR Part 201 (2011)). Depreciation is defined briefly as the loss of service value, how can service value be lost on facilities that do not yet exist? In addition, also in the USoA, the depreciation expense account (Account 403) states, "This account shall include the amount of depreciation expense for all classes of depreciable gas plant in service. . . ." (18 CFR Part 201 (2011) page 712). It does not mention including future gas plant not in service.

Q. How does Mr. Feinstein arrive at his conclusion that the "average economic life" of El Paso's facility is 30 years?

A. Mr. Feinstein uses two calculations. In the first one (Exhibit No. EPG-130, pages 26 and 27), he projects into the future until the point where he estimates that available supply "to EPNG and other pipelines" falls below 50 percent of current levels. What I would like to point out here, is that the other pipelines would be in the same situation as El Paso, the assumption being that El Paso's competitive posture relative to the other pipelines would not change due to lessened annual availability of supply. Furthermore, Mr. Feinstein's 50 percent level is unsupported. If there is a demand for natural gas, there will need to be pipelines to meet that demand. However, this calculation, he states, yields a life of 27 years.

His second calculation (Exhibit No. EPG-130, page 27) relates to El Paso's ability to generate revenues. This method returned an economic life of 37 years, which enters into his calculation of a "weighted average remaining economic life of 28 years." The combination of these two calculations lead to an average remaining economic life of 30 years, according to his testimony (Exhibit No. EPG-130, page 26).

The 37-year economic life was based on gas availability being estimated to decline to one-third of its current levels. He states that he considers this 33 percent level the end point "as the risk of providing a compensatory service becomes high." Mr. Feinstein's 33 percent level is unsupported. As discussed above, other pipelines would be in the same position. Again, if there is demand for the available gas, and its competitive footing relative to other pipelines remains the same as it is today, I do not believe his calculations support a 30-year remaining economic life for El Paso's facilities.

Also, as discussed earlier, rather than a purported supply deficiency leading to the end of El Paso's remaining life, another possibility is that a purported supply deficiency will result in an impetus to increase supply.

Q. Are financial considerations, such as debt repayment schedules, considered a determining factor in the calculation of proper and adequate depreciation rates?

A. No. There is no requirement in the Commission's Uniform System of Accounts for Natural Gas Companies that financial considerations be considered in the setting of depreciation rates. In addition to the administrative law judge's statement in the Trailblazer Pipeline Company proceeding quoted above, in Opinion 677, Texas Gas Transmission Corporation, 50 FPC 1751 at 1769 (1973), the Commission adopted the Initial Decision of the administrative law judge who ruled that:

> . . . neither accepted definitions or concepts of depreciation nor Commission cases support a proposition that the need by a company for internally generated funds for sinking fund requirements, capital investments, etc., is a factor to be considered in passing on the reasonableness of a requested depreciation rate.

On rehearing, the Commission put it more directly, "In other words, no weight may be accorded the financial side effects of a depreciation proposal in determining its reasonableness. . . ." (Texas Gas Transmission Corporation, 51 FPC 447 at 449 (1974)).

SUMMARY

Q. Mr. Pewterbaugh, would you please summarize your testimony?

A. Yes. I have provided analyses supporting a remaining economic life of 40 years from March 31, 2011, for El Paso's facilities. I have based my analysis on the gas reserves, resources, and production from El Paso's supply areas. I have also considered demand for natural gas and potential competition in relation to this remaining economic life. I made an adjustment to account for interim retirements, and based on my analyses, calculated a depreciation rate of 1.60 percent for El Paso's storage facilities, and 2.22 percent for its other transmission facilities. I have also shown that Mr. Feinstein's analysis contains elements, namely "major retirements" and future additions, that should not be included in a depreciation calculation. Based on my analysis, I believe El Paso's filed for rates are acceptable, but that Mr. Feinstein's calculated higher depreciation rates are not acceptable.

Further, I believe that a 2.20 percent rate for the Willcox lateral is reasonable and that its existing rate of 3.40 percent be lowered to that rate. With respect to the negative net salvage rate, I believe El Paso's proposal to increase this rate has not been justified and that this rate should stay at its preexisting level. My recommendations were given in Exhibit No. S-6, Schedule No. 1.

Q. Mr. Pewterbaugh, does this conclude your testimony?

A. Yes, it does.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

El Paso Natural Gas Company) Docket No. RP10-1398-000

CERTIFICATE of Kevin J. Pewterbaugh

I, Kevin J. Pewterbaugh, do hereby declare under penalty of perjury that I am the author of the foregoing testimony, that the facts set forth therein are true and correct to the best of my knowledge, and that if asked the questions contained in the text, I would give the answers contained in the testimony.

/s/ Kevin J. Pewterbaugh June 28, 2011
Kevin J. Pewterbaugh Date

EXHIBIT NO. S-5

FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF ADMINISTRATIVE LITIGATION

EL PASO NATURAL GAS COMPANY

DOCKET NO. RP10-1398-000

PRIOR CASE EXPERIENCE

OF

COMMISSION STAFF WITNESS

KEVIN J. PEWTERBAUGH

June 28, 2011

WASHINGTON, D.C. 20426

El Paso Natural Gas Company
Docket No. RP10-1398-000
Rate Case Proceedings in which Kevin J. Pewterbaugh Submitted Testimony

Company	Docket No.
Eastern Shore Natural Gas Company	RP87-61-000
Chandeleur Pipe Line Company	RP88-120-000
Chandeleur Pipe Line Company	RP89-86-000
Kentucky West Virginia Gas Company	RP86-52-000 and RP86-109-000
National Fuel Gas Supply Corporation	RP89-49-000
Transcontinental Gas Pipe Line Corporation	RP90-8-000
MIGC, Inc.	RP90-86-000
Southern Natural Gas Company	RP90-139-000, et al.
Columbia Gulf Transmission Company	RP90-107-000
Columbia Gulf Transmission Company	RP91-160-000
Tennessee Gas Pipeline Company	RP91-203-000
Southern Natural Gas Company	RP92-134-000
Stingray Pipeline Company	RP91-212-000
Tennessee Gas Pipeline Company	RP91-203-000 and RP92-132-000
Southern Natural Gas Company	RP93-15-000, et al.
U-T Offshore System	RP93-61-000
High Island Offshore System	RP93-59-000
MIGC, Inc.	RP93-89-000
CNG Transmission Corporation	RP94-96-000
Northwest Pipeline Corporation	RP94-220-000
ANR Pipeline Company	RP94-43-000
Williams Natural Gas Company	RP95-136-000
Northern Natural Gas Company	RP95-185-000
Williston Basin Interstate Pipeline Company	RP95-364-000
Northwest Pipeline Corporation	RP95-409-000
Sea Robin Pipeline Company	RP95-167-000
Trunkline Gas Company	RP96-129-000
Columbia Gas Transmission Corporation	RP95-408-000
Mississippi River Transmission Corporation	RP96-199-000
Williams Natural Gas Company	RP96-173, et al.

El Paso Natural Gas Company
Docket No. RP10-1398-000
Rate Case Proceedings in which Kevin J. Pewterbaugh Submitted Testimony

Company	Docket No.
Iroquois Gas Transmission System, L. P.	RP97-126-000
Columbia Gulf Transmission Company	RP97-52-000
Wyoming Interstate Company, Ltd.	RP97-375-000
Trailblazer Pipeline Company	RP97-408-000
Equitrans, L.P.	RP97-346-000
Exxon Company, U.S.A. v. Amerada Hess Pipeline Corporation, et al.	OR96-14-000
Northern Natural Gas Company	RP98-203-000
Northern Border Pipeline Company	RP99-322-000
Kansas Pipeline Company	RP99-485-000
Williston Basin Interstate Pipeline Company	RP00-107-000
Big West Oil Co. v. Frontier Pipeline Co., et al.	OR01-2-000, et al.
Chevron Products Co. v. Frontier Pipeline Co., et al. (Consolidated)	OR01-4-000, et al.
Big West Oil Co. v. Anschutz Ranch East Pipeline, Inc., et al.	OR01-3-000, et al.
Chevron Products Co. v. Anschutz Ranch East Pipeline, Inc., et al. (Consolidated)	OR01-5-000, et al.
Portland Natural Gas Transmission System	RP02-13-000
Trailblazer Pipeline Company	RP03-162-000
High Island Offshore System, L.L.C.	RP03-221-000
Northern Natural Gas Company	RP03-398-000
City of Vernon, California	EL00-105-007
California Independent System Operator Corporation	ER00-2019-007
Tennessee Gas Pipeline Company v. Columbia Gulf Transmission Company	RP04-215-001
Northern Natural Gas Company	RP04-155-000
Kern River Gas Transmission Company	RP04-274-000
Maritimes & Northeast Pipeline, L.L.C.	RP04-360-000
PSEG Power Connecticut, LLC	ER05-231-003
Southwest Gas Storage Company	RP07-34-000

El Paso Natural Gas Company
Docket No. RP10-1398-000
Rate Case Proceedings in which Kevin J. Pewterbaugh Submitted Testimony

Company	Docket No.
Entergy Services, Inc.	ER07-956-001
SFPP, L.P.	OR03-5-000
Entergy Services, Inc.	ER08-1056-002
Startrans IO, L.L.C.	ER08-413-004
SFPP, L.P.	IS08-390-000
High Island Offshore System, LLC	RP09-487-000
Sea Robin Pipeline Company, LLC	RP10-422-000 and RP09-995-000
Southern California Edison Company	ER09-1534-001
Louisiana Public Service Commission v. Entergy Services, Inc.	EL10-55-001
Entergy Services, Inc.	ER10-2001-001

El Paso Natural Gas Company
Docket No. RP10-1398-000
Oil Company Depreciation Studies Performed by Kevin J. Pewterbaugh

Company	Docket No.
Okie Pipe Line Company	May, 1982
Tomahawk Pipe Line Company	July, 1982
Enterprise Products Company of Mississippi	May, 1983
Dorchester Liquids Transportation Corp.	June, 1983
Enterprise Petrochemical Company	August, 1983
Enterprise Pipeline Company	October, 1983
Seminole Pipeline Company	January, 1984
Tomahawk Pipe Line Company	February, 1984
Cities Service NGL Pipeline Company	May, 1984
G & T Pipeline Company	July, 1984
National Transit Company	November, 1984
Sohio Pipe Line Company	April, 1985
Collins Pipeline Company	April, 1985
CKB Petroleum, Inc.	July, 1985
Allegheny Pipeline Company	July, 1985
Frontier Pipeline Company	March, 1986
The Largo Company	May, 1986
Mitco Pipeline Company	June, 1986
Atlantic Pipeline Corporation	July, 1986
Buccaneer Pipe Line Company	July, 1986
Coastal Pipeline Company	September, 1986
Owensboro-Ashland Company	January, 1987
Seminole Pipeline Company	October, 1987
Tecumseh Pipe Line Company	October, 1987
Yellowstone Pipe Line Company	October, 1987
Sonat Oil Transmission Inc.	September, 1988
Pioneer Pipe Line Company	March, 1988
Mid-Valley Pipeline Company	June, 1989
Northern Rockies Pipe Line Company	December, 1989
Olympic Pipe Line Company	August, 1990
Black Lake Pipe Line Company	August, 1991
Koch Pipelines, Inc.	August, 1991

EXHIBIT NO. S-6

FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF ADMINISTRATIVE LITIGATION

EL PASO NATURAL GAS COMPANY

DOCKET NO. RP10-1398-000

SUPPORTING SCHEDULES

OF

COMMISSION STAFF WITNESS

KEVIN J. PEWTERBAUGH

June 28, 2011

WASHINGTON, D.C. 20426

El Paso Natural Gas Company
Docket No. RP10-1398-000

Title	Schedule No.

El Paso Natural Gas Company
Docket No. RP10-1398-000
Summary of Results

Account No. Name	(3/31/2011) Staff Gross Plant ($)	Company Existing & Proposed Rate (%)	Staff Proposed Rate (%)	Company Testimony Rate (%)	Staff Calculated Rate (%)	Difference in Annual Expense Due to Rates ($)
DEPRECIATION						
Total Underground Storage	50,587,096	1.09	1.09	2.42	1.60	0
Transmission Plant						
365.2 Gila--Rights-of-way	5,192,035	10.00	10.00	--	--	0
Other Transmission	3,235,437,747	2.20	2.20	3.07	2.22	0
Negative Salvage Allowance		0.12/0.18	0.12	0.18	0.12	(1,941,263)
Wilcox Incremental Lateral	24,047,413	3.40	2.20	3.40	2.20	(288,569)
Negative Salvage Allowance		0.12/0.18	0.12	0.18	0.12	(14,428)
General Plant						
390 Structures and Improvements	4,395,015	4.00	4.00	--	--	0
391 Office Furn. & Equip. (Computer Equip.)	4,089,761	20.00	20.00	--	--	0
391 Office Furn. & Equip.	1,153,522	10.00	10.00	--	--	0
392 Transportation Equip. (Aircraft)	959,243			--	--	0
392 Transportation Equip. (light)	22,270,265	13.33	13.33	--	--	0
392 Transportation Equip. (heavy)	2,130,157	1.66	1.66	--	--	0
394 Tool, Shop & Garage Equipment	23,468,262	10.00	10.00	--	--	0
397 Communication Equipment	2,531,004	10.00	10.00	--	--	0
Total General Plant	60,997,229					
AMORTIZATION						
Intangible Plant						
301 Organization	43,640	4.00	4.00	--	--	0
303 Miscellaneous Intangible Plant	3,935,472	4.00	4.00	--	--	0
303 Miscellaneous Intangible Plant	10,940,896	15.00	15.00	--	--	0
General Plant--Leasehold Improvements	0	8.181	8.181	--	--	
Total Intangible Plant	14,920,008					

System Map and Supply Basin Overview

Docket No. RP____
Exhibit No. EPG-184
Page 1 of 1

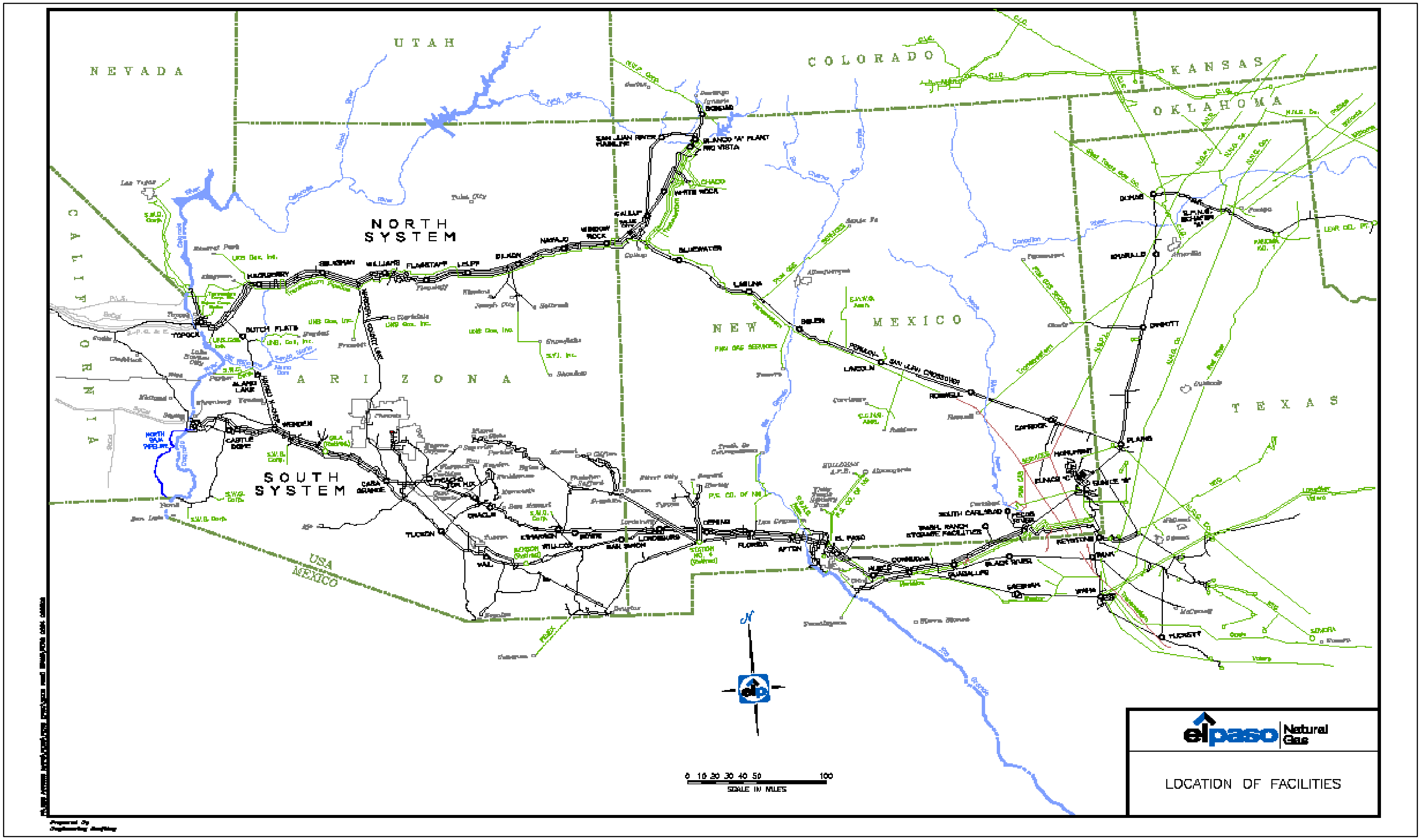


Exhibit No. S-6
Schedule No. 2

El Paso Natural Gas Company
Docket No. RP10-1398-000
The Straight-Line Depreciation Formula

The Depreciation formula is as follows:

DR = (DE / GP) x 100, where

DR = Depreciation Rate

DE = Depreciation Expense, the amount to recover each year

GP = Gross Plant

The depreciation expense portion of the formula is derived as follows:

DE = NP / ARL, where

NP = Net Plant, the amount left to recover

ARL = Average Remaining Life

The net plant portion of the formula is derived as follows:

NP = GP - (+/- NS) - AD

GP = Gross Plant

NS = Net Salvage (which can be either positive or negative)

AD = Accrued Depreciation

An equivalent depreciation formula is:

DR = ((NP / GP) x 100) / ARL, where

(NP / GP) x 100 = percent of the gross plant left to be depreciated.

Exhibit No. S-6
Schedule No. 4

El Paso Natural Gas Company
Docket No. RP10-1398-000
Production, Remaining Reserves, Undiscovered Reserves, Total Reserves/Production

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Area	Allocation	EIA Production Dry	EIA Proved Reserves Dry	PGC Probable	PGC Possible	Total Reserves	Total Reserves/ Production
	(see Note 1)	(2008)	(2008)	(2008)	(2008)	(4)+(5)+(6)	(2008) (yrs.)
Primary Provinces							
Colorado (San Juan)	0.3157	455	7,357				
New Mexico West (San Juan)		890	12,254				
Subtotal San Juan (P-555) (including coalbed gas)		1,345	19,611	11,485	12,199	43,295	32.2
New Mexico East (Permian)		459	4,031				
Texas RRD 7C (Permian)		342	4,946				
Texas RRD 8 (Permian)		541	6,824				
Texas RRD 8A (Permian)		105	1,172				
Subtotal Permian (P-440)		1,447	16,973	10,750	21,734	49,457	34.2
Oklahoma (Anadarko)		1,775	20,845				
Texas RRD 10 (Anadarko and Palo Duro)		574	6,922				
Subtotal Anadarko (P-420) (excluding allocation)		2,349	27,767	21,548	19,331	68,646	29.2
Total Primary		5,141	64,351	43,783	53,264	161,398	31.4
Secondary Provinces							
California Onshore (P-640, 650, 660)		234	2,349	2,400	6,600	11,349	48.5
Colorado (excluding San Juan)	0.6843	986	15,945				
Utah		417	6,643				
Wyoming		2,026	31,143				
Subtotal Rocky Mountain (P-510, 515, 520, 530, 535, 540, 541, 545, 550, 560, 565, 590) includes coalbed gas		3,429	53,731	101,329	94,855	249,915	72.9
Texas RRD 5 (Barnett Area)		1,521	20,281				
Texas RRD 7B (Barnett Area)		187	2,382				
Texas RRD 9 (Barnett Area)		650	9,037				
Subtotal Barnett Area (P-430)		2,358	31,700	14,478	22,081	68,259	28.9
Texas RRD 4 (Eagle Ford Area) (El Paso used Texas RRD 1, and coalbed only)		1,156	7,604	34,860	51,450	93,914	81.2
Total Secondary		7,177	95,384	153,067	174,986	423,437	59.0
Grand Total		12,318	159,735	196,850	228,250	584,835	47.5

Note 1--accepted El Paso's allocation

El Paso Natural Gas Company
Docket No. RP10-1398-000
Description of PGC Resource Categories

PROBABLE RESOURCES are connected with known fields. They are the most certain of potential supplies. Reserves in this category are expected to come from extensions and new pool discoveries in existing fields.

POSSIBLE RESOURCES are not connected with known fields, but are connected with known productive formations. They are not as certain of potential supplies as probable resources. Reserves in this category are expected to come from new field discoveries in known productive formations.

SPECULATIVE RESOURCES are connected with formations that have not yet proven to contain natural gas reserves. They are the least certain of potential supplies. Reserves in this category are expected to come from discoveries in formations or provinces that have not previously yielded any reserves.

Exhibit No. S-6
Schedule No. 6

El Paso Natural Gas Company
Docket No. RP10-1398-000
Outlook for Annual Natural Gas Consumption
Energy Information Administration
(Quadrillion BTU/year)

Year	National Natural Gas Consumption (QBTU)	Regional (1) Natural Gas Consumption (TCF)
2008	23.85	4.63
2009	23.31	4.46
2015	25.77	4.29
2020	26.00	4.44
2025	25.73	4.59
2030	26.58	4.88
2035	27.24	5.10

(1) -- Regional consists of the Pacific and Mountain Census Regions. The Pacific Region consists of: WA, OR, CA, AK, I The Mountain Region consists of: MT, ID, WY, NV, UT, CO, AZ, NM.

QBTU = Quadrillion British Thermal Units

TCF = Trillion Cubic Feet

Sources: Annual Energy Outlook 2011, with Projections to 2035, Energy Information Adminstration, April, 2011, page 115.

Annual Energy Outlook 2011, with Projections to 2035, Energy Information Adminstration, April, 2011, online, Table 136.

El Paso Natural Gas Company
Docket No. RP10-1398-000
On the Use of Iowa Curves

Iowa curves 1/ are useful tools in establishing average service lives (ASL) and applicable retirement patterns for each account, and from them determining each account's average remaining life (ARL). Iowa curves are used to account for the normal retirements that occur over the life of an account so that the account will be fully accrued when its useful life is over. Normal retirements must be considered to insure that the account is not under-accrued when its useful life is over. This is because the depreciation rates are applied to the gross plant to arrive at the annual depreciation expense for each account. When retirements are made from the gross plant, the annual depreciation expense would decrease, with the result that the investment would not be fully recovered at the end of its life were these retirements not taken into account in calculating the depreciation rate.

An Iowa curve, fitted to a particular account, predicts the ASL and retirement pattern of that account. The ASL is the average length of time that all units of a group are expected to last when they are new. The retirement pattern shows how much of the group will be retired each year as the group ages. The ARL, which is of particular importance

1/ The Iowa curves were developed at the Iowa State College Engineering Experiment Station by extensive observation and classification of ages at which industrial property has been retired.

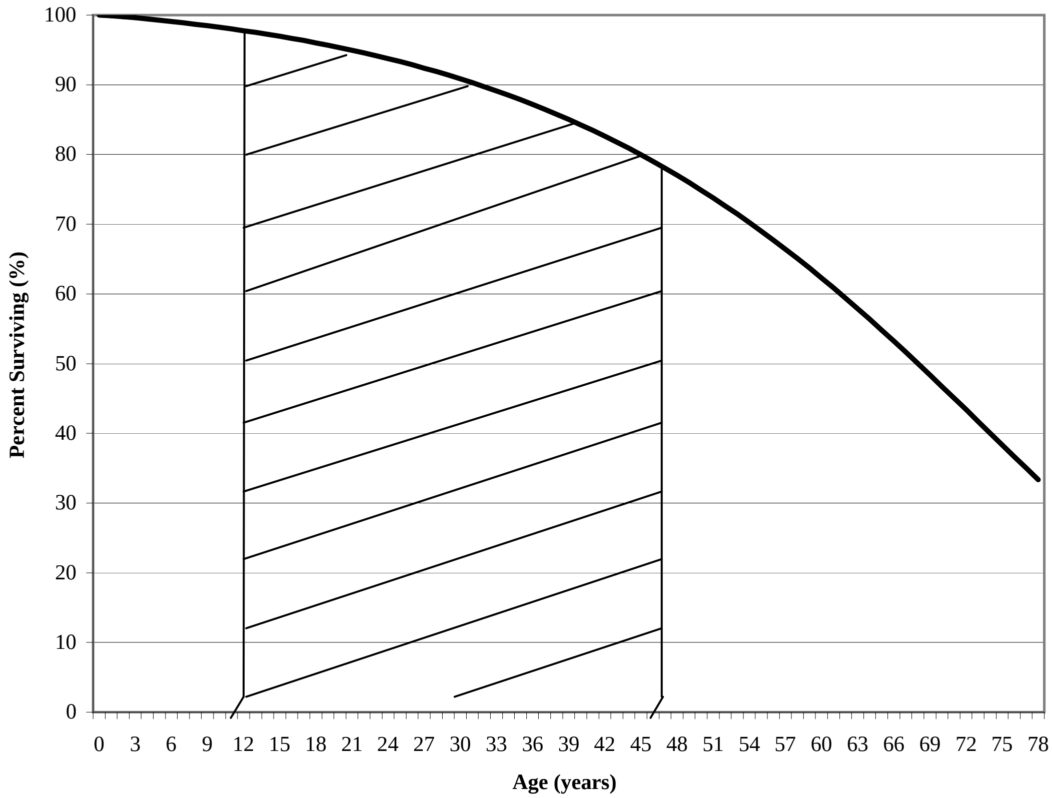
El Paso Natural Gas Company
Docket No. RP10-1398-000
On the Use of Iowa Curves

in the calculation of the depreciation rate, is determined from the useful life of the facility and from each account's Iowa curve.

Ideally, Iowa curves are chosen for each account by fitting them to vintaged installation and retirement data. In the absence of sufficient retirement data, typical Iowa curves found to be applicable in the staff's analyses of other pipeline companies can be used. A sample Iowa curve including a more detailed definition of terms follows on the next page.

El Paso Natural Gas Company
Docket No. RP10-1398-000
Example of an Iowa Curve

Iowa-Type Survivor Curve
65-year Average Service Life, R2 Curve, 35-year Truncation



Example: Remaining Economic Life = 35 years; Age = 12 years; Average Remaining Life = 32 years

AVERAGE SERVICE LIFE (ASL) is the average expected life of all units of a group when new. The ASL equals the area under the survivor curve, from age zero to the maximum age, divided by the original group.

AVERAGE AGE is the average length of time that the units of a group have been in service. The older the units are, the shorter their remaining life is expected to be.

AVERAGE REMAINING LIFE (ARL) is the average life that remains to the surviving units of a group, at a given age for the group. The ARL is reported in years. It is calculated by obtaining the area under the survivor curve from an observation age to a maximum age and dividing this area by the ordinate at the observation age.

Exhibit No. S-6
Schedule No. 8

El Paso Natural Gas Company
Docket No. RP10-1398-000
Staff and Company Iowa Curve Choices

Account No.	Name	6/30/10 Gross Plant	Average Age	Staff Iowa Curves	Company Iowa Curves
Underground Storage				(1)	
350.2	Rights-of-way	3,106,791	28.62	45 R4	42 R2
351.2	Compressor Sta. Structures	1,727,608	25.93	38 R4	34 R2
351.3	M & R Sta. Structures	9,538	25.93	38 R4	34 R2
351.4	Other Structures	25,788	25.93	38 R4	34 R2
352	Wells	10,004,560	25.53	55 R4	40 R4
352.1	Storage Leaseholds & Rights	45,071	6.88		
353	Lines	7,446,682	24.53	48 R4	39 R5
354	Compressor Sta. Equipment	23,952,681	21.50	40 R4	32 R4
355	Other Equipment	806,609	17.37	33 R2	20 R1
356	Purification Equipment	1,141,656	27.13	45 R3	28 R2.5
357	Other Equipment	1,078,883	27.82	17 R0.5	35 R2.5
Total Underground Storage less Acct. 352.1		49,300,796	23.59	44 R4	
Transmission Plant				(2)	
	Other Transmission				
365.1	Land Rights	15,087,378		65 R2	
365.2	Rights-of-way	53,751,415		65 R2	60 R3
366.1	Compressor Sta. Structures	42,411,385		40 R4	24 R3
366.2	M & R Sta. Structures	3,319,968		40 R4	24 R3
366.3	Other Structures	7,460,009		40 R4	24 R3
367	Mains	1,913,737,432	25.20	65 R2	57 L5
368	Compressor Sta. Equipment	1,019,498,350	21.86	30 R3	35 R2
369	M & R Sta. Equipment	96,403,495	18.10	40 R2	33 S1.5
370	Communication Equipment	64,084,672	17.95	10	29 R2
371	Other Equipment	9,438,454	18.66	20 R4	26 R2
Total Other Transmission		3,225,192,558	23.71	52 R2	

(1) -- Iowa Curves taken from Staff selections in Southwest Gas Storage Company, RP07-34

(2) -- Iowa Curves taken from Staff selections in Kern River Gas Transmission Company, RP04-274

Exhibit No. S-6
Schedule No. 9

El Paso Natural Gas Company
Docket No. RP10-1398-000
Iowa Survivor Curve Table for Other Transmission Plant

Iowa Curve:	52 R2
ASL:	52 years
Pattern:	R2
Truncation:	40 years

Observation Year (Avg. Age) (1/2-year convention)	Average Service Life	Average Remaining Life	ARL / ASL	Current Percent Surviving (%)	Percent Surviving at Truncation (%)
1	36.9	36.4	0.9868	99.91	73.56
2	37.6	36.2	0.9614	99.71	72.06
3	38.4	36.0	0.9372	99.49	70.50
4	39.1	35.7	0.9139	99.26	68.88
5	39.8	35.5	0.8917	99.02	67.21
6	40.5	35.2	0.8703	98.76	65.48
7	40.8	34.6	0.8484	98.49	64.60
8	41.5	34.8	0.8398	98.34	62.79
9	42.1	34.6	0.8204	98.04	60.93
10	42.8	34.3	0.8017	97.72	59.01
11	43.4	34.0	0.7836	97.37	57.05
12	43.9	33.7	0.7660	97.01	55.04
13	44.5	33.3	0.7490	96.63	53.00
14	45	33.0	0.7325	96.22	50.91
15	45.6	32.6	0.7164	95.79	48.79
16	46.1	32.3	0.7008	95.33	46.65
17	46.5	31.9	0.6855	94.85	44.48
18	47	31.5	0.6706	94.34	42.30
19	47.4	31.1	0.6560	93.80	40.12
20	47.6	30.5	0.6398	93.23	39.02
21	48	30.5	0.6346	92.93	36.84
22	48.4	30.0	0.6207	92.32	34.67
23	48.7	29.6	0.6070	91.67	32.51
24	49.1	29.1	0.5935	90.99	30.39
25	49.4	28.6	0.5802	90.27	28.30
26	49.7	28.2	0.5671	89.52	26.25
27	49.9	27.7	0.5542	88.73	24.26
28	50.2	27.2	0.5414	87.89	22.32
29	50.4	26.6	0.5287	87.02	20.45
30	50.6	26.1	0.5162	86.10	18.65

El Paso Natural Gas Company
Docket No. RP10-1398-000
Staff Depreciation Calculation

Account No.	Name	Staff 3/31/11 Gross Plant	Staff 3/31/11 Accrued Depr.	Net Plant	Percent Net Plant	Existing & Proposed Rate	Company Supported Rate	Staff Iowa Curves	Staff ARL	Staff Calculated Rate
DEPRECIATION										
Underground Storage										
Total Underground Storage		50,587,096	33,326,018	17,261,078	34.12	1.09	2.42	44 R4	21.3	1.60
Transmission Plant										
Total of all Transmission		3,264,677,195	1,155,920,387	2,108,756,808	64.59	2.20	3.07	52 R2	29.1	2.22

Note: As El Paso only provided accrued depreciation for total transmission plant, Staff used total transmission plant to derive its calculated rate for other transmission. Other transmission accounts for a little over 99 percent of the total transmission plant (3,235,437,747 / 3,264,677,195).

Exhibit No. S-6
Schedule No. 10

Exhibit No. S-6
Schedule No. 11

El Paso Natural Gas Company
Docket No. RP10-1398-000
Percent of Plant Retired Over the Past Five Years
for Negative Net Salvage Rate

Transmission	Total Transmission Plant	Total Transmission Plant less current Willcox and Gila Plant Amounts
Gross Plant, 12/31/04	3,264,677,195	2,675,925,596
retirements, 2005-2009	159,707,572	159,707,572
pct. of plant retired	4.89	5.97

From that approximately 6 percent of plant, El Paso is extrapolating what the negative salvage of the other 94 percent of its plant will be.

EXHIBIT NO. S-7

FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF ADMINISTRATIVE LITIGATION

EL PASO NATURAL GAS COMPANY

DOCKET NO. RP10-1398-000

WORKPAPERS

OF

COMMISSION STAFF WITNESS

KEVIN J. PEWTERBAUGH

June 28, 2011

WASHINGTON, D.C. 20426

El Paso Natural Gas Company
Docket No. RP10-1398-000
Workpapers

AVERAGE SERVICE LIFE IS 44.00 SURVIVOR CURVE IS R4

TRUNCATION IS 40.00 YEARS AFTER OBSERVATION YEAR.

0S.YEAR	AVE.SL	R.LIFE	R.L./ASL	CUR % SURV	% SURV TRUNC
2010	38.2	37.8	.9885	100.00	69.56
2009	38.8	37.5	.9660	100.00	66.42
2008	39.7	37.0	.9335	99.99	61.19
2007	40.2	36.7	.9125	99.99	57.37
2006	40.7	36.3	.8920	99.98	53.33
2005	41.1	35.4	.8612	99.97	49.11
2004	41.7	35.1	.8422	99.96	42.61
2003	42.1	34.6	.8227	99.95	38.26
2002	42.4	34.1	.8034	99.93	33.98
2001	42.8	33.2	.7748	99.90	27.83
2000	43.0	32.5	.7557	99.87	24.01
1999	43.2	31.9	.7368	99.83	20.45
1998	43.4	31.2	.7178	99.78	17.18
1997	43.6	30.1	.6895	99.70	12.87
1996	43.7	29.3	.6706	99.62	10.39
1995	43.8	28.5	.6517	99.53	8.23
1994	43.8	27.3	.6232	99.36	6.37
1993	43.9	26.6	.6046	99.22	4.13
1992	43.9	25.7	.5859	99.06	2.96
1991	44.0	24.9	.5672	98.86	2.03
1990	44.0	23.7	.5394	98.50	1.03
1989	44.0	22.9	.5211	98.20	.60
1988	44.0	22.1	.5029	97.86	.31
1987	44.0	21.3	.4849	97.47	.14
1986	44.0	20.2	.4583	96.77	.03
1985	44.0	19.4	.4409	96.22	.00
1984	44.0	18.6	.4237	95.60	.00
1983	44.0	17.5	.3984	94.50	.00
1982	44.0	16.8	.3820	93.65	.00
1981	44.0	16.1	.3658	92.70	.00
1980	44.0	15.4	.3499	91.65	.00
1979	44.0	14.4	.3266	89.84	.00
1978	44.0	13.7	.3114	88.48	.00
1977	44.0	13.0	.2966	87.00	.00
1976	44.0	12.4	.2820	85.37	.00
1975	44.0	11.5	.2608	82.67	.00
1974	44.0	10.9	.2469	80.69	.00
1973	44.0	10.3	.2334	78.55	.00

El Paso Natural Gas Company
Docket No. RP10-1398-000
Workpapers

1972	44.0	9.4	.2136	75.03	.00
1971	44.0	8.8	.2009	72.42	.00
1970	44.0	8.3	.1888	69.56	.00
1969	44.0	7.8	.1772	66.42	.00
1968	44.0	7.1	.1610	61.19	.00
1967	44.0	6.6	.1511	57.37	.00
1966	44.0	6.2	.1418	53.33	.00
1965	44.0	5.9	.1331	49.11	.00
1964	44.0	5.3	.1211	42.61	.00
1963	44.0	5.0	.1138	38.26	.00
1962	44.0	4.7	.1068	33.98	.00
1961	44.0	4.3	.0971	27.83	.00
1960	44.0	4.0	.0910	24.01	.00
1959	44.0	3.7	.0852	20.45	.00
1958	44.0	3.5	.0795	17.18	.00
1957	44.0	3.1	.0712	12.87	.00
1956	44.0	2.9	.0659	10.39	.00
1955	44.0	2.7	.0606	8.23	.00
1954	44.0	2.4	.0554	6.37	.00
1953	44.0	2.1	.0477	4.13	.00
1952	44.0	1.9	.0427	2.96	.00
1951	44.0	1.7	.0379	2.03	.00
1950	44.0	1.4	.0309	1.03	.00
1949	44.0	1.2	.0264	.60	.00
1948	44.0	1.0	.0221	.31	.00
1947	44.0	.8	.0179	.14	.00
1946	44.0	.5	.0121	.03	.00

El Paso Natural Gas Company
Docket No. RP10-1398-000
Workpapers

AVERAGE SERVICE LIFE IS 52.00 SURVIVOR CURVE IS R2

TRUNCATION IS 40.00 YEARS AFTER OBSERVATION YEAR.

2010	36.9	36.4	.9868	99.91	73.56
2009	37.6	36.2	.9614	99.71	72.06
2008	38.4	36.0	.9372	99.49	70.50
2007	39.1	35.7	.9139	99.26	68.88
2006	39.8	35.5	.8917	99.02	67.21
2005	40.5	35.2	.8703	98.76	65.48
2004	40.8	34.6	.8484	98.49	64.60
2003	41.5	34.8	.8398	98.34	62.79
2002	42.1	34.6	.8204	98.04	60.93
2001	42.8	34.3	.8017	97.72	59.01
2000	43.4	34.0	.7836	97.37	57.05
1999	43.9	33.7	.7660	97.01	55.04
1998	44.5	33.3	.7490	96.63	53.00
1997	45.0	33.0	.7325	96.22	50.91
1996	45.6	32.6	.7164	95.79	48.79
1995	46.1	32.3	.7008	95.33	46.65
1994	46.5	31.9	.6855	94.85	44.48
1993	47.0	31.5	.6706	94.34	42.30
1992	47.4	31.1	.6560	93.80	40.12
1991	47.6	30.5	.6398	93.23	39.02
1990	48.0	30.5	.6346	92.93	36.84
1989	48.4	30.0	.6207	92.32	34.67
1988	48.7	29.6	.6070	91.67	32.51
1987	49.1	29.1	.5935	90.99	30.39
1986	49.4	28.6	.5802	90.27	28.30
1985	49.7	28.2	.5671	89.52	26.25
1984	49.9	27.7	.5542	88.73	24.26
1983	50.2	27.2	.5414	87.89	22.32
1982	50.4	26.6	.5287	87.02	20.45
1981	50.6	26.1	.5162	86.10	18.65
1980	50.8	25.6	.5038	85.14	16.93
1979	50.9	25.0	.4915	84.14	15.30
1978	51.0	24.4	.4783	83.09	14.51
1977	51.2	24.2	.4733	82.54	13.00
1976	51.3	23.7	.4613	81.42	11.58
1975	51.4	23.1	.4494	80.24	10.25
1974	51.5	22.5	.4376	79.01	9.02
1973	51.6	22.0	.4259	77.73	7.87
1972	51.7	21.4	.4143	76.39	6.81
1971	51.7	20.8	.4029	75.00	5.84
1970	51.8	20.3	.3915	73.56	4.96

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1969	51.8	19.7	.3803	72.06	4.16
1968	51.9	19.2	.3692	70.50	3.44
1967	51.9	18.6	.3583	68.88	2.80
1966	51.9	18.0	.3475	67.21	2.24
1965	51.9	17.5	.3366	65.48	1.99
1964	52.0	17.2	.3316	64.60	1.53
1963	52.0	16.7	.3212	62.79	1.14
1962	52.0	16.2	.3109	60.93	.82
1961	52.0	15.6	.3009	59.01	.56
1960	52.0	15.1	.2910	57.05	.36
1959	52.0	14.6	.2813	55.04	.21
1958	52.0	14.1	.2719	53.00	.11
1957	52.0	13.7	.2626	50.91	.05
1956	52.0	13.2	.2536	48.79	.01
1955	52.0	12.7	.2448	46.65	.00
1954	52.0	12.3	.2362	44.48	.00
1953	52.0	11.8	.2279	42.30	.00
1952	52.0	11.4	.2198	40.12	.00
1951	52.0	11.2	.2158	39.02	.00
1950	52.0	10.8	.2080	36.84	.00
1949	52.0	10.4	.2004	34.67	.00
1948	52.0	10.0	.1930	32.51	.00
1947	52.0	9.7	.1858	30.39	.00
1946	52.0	9.3	.1788	28.30	.00
1945	52.0	8.9	.1720	26.25	.00
1944	52.0	8.6	.1653	24.26	.00
1943	52.0	8.3	.1587	22.32	.00
1942	52.0	7.9	.1524	20.45	.00
1941	52.0	7.6	.1461	18.65	.00

EXHIBIT NO. S-8

FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF ADMINISTRATIVE LITIGATION

EL PASO NATURAL GAS COMPANY

DOCKET NO. RP10-1398-000

DIRECT AND ANSWERING TESTIMONY

OF

COMMISSION TRIAL STAFF WITNESS

ANTONIO MACEO

June 28, 2011

WASHINGTON, D.C. 20426

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

El Paso Natural Gas Company) Docket No. RP10-1398-000

Summary of the Direct and Answering Testimony of
Antonio Maceo
Witness for the Trial Staff of the
Federal Energy Regulatory Commission

In Staff Exhibit S-8, the Prepared Direct and Answering Testimony of Antonio Maceo on behalf of Commission Trial Staff, Mr. Maceo examines and provides evidence supporting the view of Staff that contract life should not be the determining factor in establishing the depreciation service life of the Willcox Lateral. Using contract life will understate the remaining life associated with this facility, thus skewing the ability to have a properly assigned calculated depreciation rate.

Exhibit No. S-8

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

El Paso Natural Gas Company) Docket No. RP10-1398-000

Direct and Answering Testimony of
Antonio Maceo
Witness for the Staff of the
Federal Energy Regulatory Commission

Q. Please state your name and business address?

A. My name is Antonio Maceo, and my business address is 888 First Street, NE, Washington, D.C. 20426.

Q. By whom are you employed and in what capacity?

A. I am employed by the Federal Energy Regulatory Commission (Commission) as an engineer in the Office of Administrative Litigation.

Q. Please state your educational background and work history.

A. I graduated from Morgan State University in 1995 and 1996, earning Bachelor of Science degrees first in Physics and then Engineering Physics, with a concentration in electrical systems. Currently I am pursuing a Masters of Science degree in Electrical Engineering (MSEE) from Capitol College in Laurel, Maryland. In addition to my engineering education, I have completed two depreciation seminars given by the Society of Depreciation Professionals, a commercial organization widely recognized for its expertise in depreciation-related matters. I am also a member of the Society of Depreciation Professionals. From May 1995 to July 1995, I was employed as a program instructor at Morgan State University, where I taught basic and introductory electronics (analog & digital), with the use of computer simulation of electronic circuits using *Pspice* (electrical engineering software used for circuit simulation and design). From 1995 to 2005 I performed various job functions as an Electrical/Electronic Engineering Technician, Metrology Engineer (Measurement Science), Quality Control Engineer, and finally as an Environmental Sanitarian and Radiation Safety Officer for the Baltimore City Department of Health. On September 29, 2005, I accepted a position with the Pennsylvania Public Utility Commission (PPUC), first as a Nuclear Engineer, and then as a Fixed Utility Valuation Engineer. My duties included, but were not limited to, assisting in the performance of studies and analyses regarding engineering issues and energy regulation. Specifically, those issues include valuation, depreciation, cost of service, and quality and reliability of service as they apply to private utility companies. I further assisted in reviewing, comparing, and performing analyses on specific issues related to valuation engineering and rate structure, including: valuation concepts, original cost, property records, depreciation methodologies, intangible values, rate base, fixed capital cost, inventory processing, excess capacity, nuclear decommissioning, cost of service, and rate design. I worked for the PPUC until August 5, 2008, and then started working for the Federal Energy Regulatory Commission, Office of Administrative Litigation, two weeks later.

Q. Please summarize your duties with the Federal Energy Regulatory Commission.

A. My responsibilities include determining the appropriate depreciation rates in formal gas and electric rate case proceedings, and providing support for such rates. Furthermore, I perform analyses of electrical engineering issues in electric cases set for hearing.

Q. Have you previously testified before the Commission?

A. Yes, I have submitted testimony in MidAmerican Energy Company, Docket No. ER09-823-000.

Q. Mr. Maceo, have you previously testified before any State Commission?

A. Yes. While employed at the PPUC I testified in: (1) *Pennsylvania Public Utility Commission v. Valley Energy, Inc.*, Docket No. R-00072349. My testimony in that proceeding dealt with Late Payment Revenues as applied to natural gas facilities; (2) *Pennsylvania Public Utility Commission v. Emporium Water Company.*, Docket No. R-00061297, which dealt with Unaccounted for Water and Line Breaks associated with the water system; (3) *Pennsylvania Public Utility Commission v. Audubon Water Company.*, Docket No. R-000721000 which dealt with Customer Service and its impact on the residential customer rate payers overall quality of service; (4) *Pennsylvania Public Utility Commission v. Columbia Gas of Pennsylvania, Inc.*, Docket No. R-2008-2028039, which dealt with the issue of Lost and Unaccounted for Gas, Retainage, and Unified Sharing Mechanism within the context of natural gas facilities; and (5), *Pennsylvania Public Utility Commission v. Total Environmental Solutions, Inc.*, Docket No. R-00072495, which dealt with the issue of Materials and Supply, Rate Design, Customer Penalties, and Water Allowance Minimum Charge within the context of sewer facilities.

Q. What issue will you be addressing?

A. The subject at issue in this proceeding that I will be addressing is whether the depreciation rate for El Paso Natural Gas Company's (EPNG) Willcox Lateral should be based on contract life. Mr. Pewterbaugh is also addressing this issue in Exhibit No. S-4.

Q. What is your position on this issue?

A. My position on this issue is that contract life should not be used as a means of establishing the depreciation rate for this specific system.

Q. What information did you review in arriving at your conclusion?

A. I reviewed the materials submitted with the June 30, 2008 filing, including the testimony of EPNG witness Edward H. Feinstein that he presented with respect to the Willcox Lateral. I also reviewed EPNG's data responses to Trial Staff's data requests and the Kern River Order that I will discuss later.

Q. Are you sponsoring any Exhibits?

A. Yes. Besides my testimony, which is designated as Exhibit No. S-8, I am sponsoring Exhibit No. S-9, which contains a document supporting my analysis.

Q. Mr. Maceo, please briefly describe the Willcox Lateral as it relates to your testimony.

A. The Willcox Lateral is a 20-inch lateral pipeline facility which extends south, approximately 56 miles from the EPNG Willcox Compressor Station going in the direction of the Mexican border. The lateral has a transport design capacity of approximately 130,000 Mcf per day and splits into two branches. Each Branch of the lateral delivers approximately 50,000 Mcf per day, and allows shippers greater flexibility to transport gas for export and sale into Mexico. This information is from Exhibit No. EPG-130, p. 40.

Q. What does EPNG say about the Willcox Lateral depreciation rate?

A. EPNG states that the depreciation rate should remain at a level of 3.40 percent. EPNG justifies this depreciation rate based on the idea that as part of the original application and Commission order, the Commission approved a 4.0 percent rate in order to be consistent with the length of the original contract.

Q. Are there any Commission orders approving a depreciation rate based on contract life?

A. Yes. The Commission did so in *Kern River Gas Transmission Company*, Docket No. RP04-274-000, Opinion No. 486.

Q. What does that Commission order say?

A. The Commission's order in *Kern River* states, "As we noted in *Northwest*, the Commission's general policy is not to limit the depreciable life of a pipeline to the life of the pipelines' current contracts with its customers. We stated that if depreciation rates were based on the life of the pipeline's current contracts, but the facilities remain in service after the end of those contracts, the later ratepayers would not pay any depreciation component for that use. Such a result, we found, generally imposes an unfair burden on the first generation of ratepayers."

Q. Why did the Commission allow a depreciation rate based on the life of contracts in *Kern River*?

A. The Commission allowed it in *Kern River* because Kern River built facilities for specific customers and those customers entered agreements that obligated them to pay for the full costs of the facilities.

Q. Does the Willcox Lateral fit the criteria from the *Kern River* Order?

A. No. It is true that the Willcox Lateral was originally built to serve specific customers; however, it appears from the Commission Order approving construction of the Willcox Lateral, that there is no evidence to show that its customers were obligated like the Kern River customers were, to pay for the full cost of the facility. It should also be noted that Kern River dealt with levelized rate agreements which do not apply to the Willcox Lateral.

Q. Are there any other reasons why the Commission should not use a contract life associated with the original Willcox Lateral contracts to calculate EPNG's Willcox Lateral depreciation rate?

A. According to a recent press release, EPNG has signed a long-term agreement to expand its Willcox Lateral and provide 95,000 dekatherms per day of natural gas transportation to MGI Supply Ltd., and 90,000 dekatherms per day to Mexicana de Cobre, S.A. de C.V., for power generation projects in Mexico (See Exhibit No. S-9). This indicates that the contractual situation on the Willcox Lateral has changed. Not accounting for this change could potentially mean that later users of the system do not pay their fair share of its cost. If that happens, it would result in an intergenerational inequity, which the Commission has found unreasonable, as I have discussed above. I have included the press release as Exhibit No. S-9.

Q. Mr. Maceo, would you please summarize your testimony?

A. Yes. I have provided evidence supporting the view of Staff that contract life should not be the determining factor in establishing a depreciation service life of the Willcox Lateral. Using contract life will potentially understate the remaining life associated with this facility, and lead to an improperly calculated depreciation rate.

Q. Does this conclude your testimony?

A. Yes, it does.

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

El Paso Natural Gas Company)   Docket No. RP10-1398-000

CERTIFICATE of Antonio Maceo

I, Antonio Maceo, declare under penalty of perjury that I am the author of the foregoing testimony, that the facts set forth herein are true and correct to the best of my knowledge, and that if asked the same questions contained in the text, I would give the answers contained in the testimony.

/s/ Antonio Maceo   June 28, 2011

Antonio Maceo   Date

EXHIBIT NO. S-9

FEDERAL ENERGY REGULATORY COMMISSION
OFFICE OF ADMINISTRATIVE LITIGATION

EL PASO NATURAL GAS COMPANY

DOCKET NO. RP10-1398-000

SUPPORTING DOCUMENTS

OF

COMMISSION STAFF WITNESS

ANTONIO MACEO

June 28, 2011

WASHINGTON, D.C. 20426

El Paso Corporation Announces Expansions for El Paso Natural Gas System

HOUSTON, TX, May 05, 2011 (MARKETWIRE via COMTEX) --

El Paso Corporation (NYSE: EP) today announced that its subsidiary, El Paso Natural Gas Company (EPNG), has successfully closed companion open seasons and signed long-term agreements to expand its Willcox lateral and provide mainline 95,000 dekatherms per day (Dth/d) of natural gas transportation to MGI Supply Ltd., a subsidiary of Pemex Gas, and 90,000 Dth/d to Mexicana de Cobre, S.A. de C.V., a subsidiary of Grupo Mexico, Mexico's largest mining company and one of the world's largest copper producers, for power-generation projects in Mexico.

The two open seasons, which closed April 29, 2011, offered up to 200,000 Dth/d of existing capacity held by EPNG on its south mainline, extending from the Waha Hub in West Texas to EPNG's Willcox compressor station in Cochise County, Arizona, and 185,000 Dth/d of proposed additional capacity from the Willcox station to two delivery points, also in Cochise County, at the U.S.-Mexico border. Expansion of the Willcox lateral, anchored by 15-year contractual commitments, would utilize existing facilities at the Willcox compressor station after certain pipe and compression modifications are undertaken. This project is expected to generate more than $30 million of annual revenues when fully in service with estimated capital of $18 million.

Pending Federal Energy Regulatory Commission approval, the project is planned to be in service by April 1, 2013.

El Paso Corporation provides natural gas and related energy products in a safe, efficient, and dependable manner. The company owns North America's largest interstate natural gas pipeline system and one of North America's largest independent oil and natural gas producers and an emerging midstream business. For more information, visit www.elpaso.com.

Cautionary Statement Regarding Forward-Looking Statements

This release includes certain forward-looking statements and projections. The company has made every reasonable effort to ensure that the information and assumptions on which these statements and projections are based are current, reasonable, and complete. However, a variety of factors could cause actual results to differ materially from the projections, anticipated results or other expectations expressed in this release, including, without limitation, our ability to implement and achieve our objectives in our 2011 plan; our ability to obtain and maintain in force and effect all necessary federal, state and local regulatory approvals on a timely basis; our ability to successfully construct and operate the proposed facilities described in this release on time and within budget; our ability to satisfy all other conditions precedent in the contractual agreements; general economic conditions in geographic regions or markets served by El Paso Corporation and its affiliates, or where operations of the company and its affiliates are located; and other factors described in the company's (and its affiliates') Securities and Exchange Commission filings. While the company makes these statements and projections in good faith, neither the company nor its management can guarantee that anticipated future results will be achieved. Reference must be made to those filings for additional important factors that may affect actual results. The company assumes no obligation to publicly update or revise any forward-looking statements made herein or any other forward-looking statements made by the company, whether as a result of new information, future events, or otherwise.

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SOURCE: El Paso Corporation