El Paso Electric (EPE) Company Response to Public Advisory Group

On September 22, 2017, Integrated Resource Plan (IRP) Public Advisory Group (PAG) participants Don Kurtz and Merrie Lee Soules made a presentation to the PAG (PAG Presentation). EPE scheduled the September 22 meeting, at the request of the PAG, and specifically designated it for use by the PAG to raise particular areas for discussion. In addition, Mr. Kurtz also submitted to EPE a list of comments following EPE's 6th scheduled PAG meeting on September 7, 2017. Because portions of the PAG Presentation supplement or reference issues discussed in those comments, this reply also addresses those comments.

The PAG Presentation consisted of two sections, one presented by Mr. Kurtz and the second by Ms. Soules. Generally speaking, the presentations provided information and opinion on matters related to EPE's 2018 IRP, resource selection, and need.

Section One of the PAG Presentation describes the "Current Dynamic Energy Environment". Mr. Kurtz's recommendations (1) through (6) are then summarized beginning on Slide 9. These recommendations (1) through (6) are repeated here followed by EPE's responses.

1. "The importance of addressing carbon emissions in all future planning"

What is termed the "inevitability of future limitations on carbon emissions" is described as one aspect of the dynamic energy environment. EPE agrees that environmental considerations and regulations are critical components in resource selection. The IRP rule requires EPE to consider existing and anticipated environment laws and regulations. EPE's filed IRP will comply with this provision of the rule.

EPE action to address emissions must be made under the existing regulatory framework, including applicable environmental regulations presented at the September 7 PAG meeting, and applicable public utility regulations at the state and federal levels. Environmental regulations which impact resource selection and cost are appropriately reflected in rates to customers. For example, EPE's decision to not extend participation in the Four Corners Power Plant was based on EPE's evaluation of the costs and benefits of doing so, including an expectation of the possibility of increasing environmental costs and concerns.

Note: Mr. Kurtz included additional commentary on this issue (Concern #1) in separate comments to EPE. Those comments note the recently filed Petition for Rulemaking in New Mexico (Case No. 17-00211-UT) to implement a Clean Energy Standard (CES) rule. EPE is participating in the Commission's docket regarding the CES rule, but no rule has been proposed or noticed by the Commission in that case. Consistent with Commission's standardized pricing for carbon emissions, EPE plans to model several different levels of carbon tax as part of its expansion plan analysis. EPE disagrees with Mr. Kurtz's characterization of "EPE inaction on limiting carbon

output" in his comments. EPE has a low carbon footprint relative to electric IOUs, which was significantly reduced by EPE's voluntary exit from the coal-fired Four Corners Power Plant.

2. <u>"Understand the value of buying time to let new supply side technologies</u> <u>emerge"</u>

The following actions are recommended to buy time for new technologies to emerge: (a) stop all investment in new fossil fuel power plants; (b) keep current generating facilities in active service rather than retiring and replacing them; and (c) invest in lowering peak demand through energy efficiency (EE), demand response (DR), purchase power agreements (PPA) during peak hours, and non-wire alternatives for distribution and transmission.

The noted basis for this recommendation include: (1) declining costs for renewable resources; (2) an "increasing preference for distributed solar options" by customers; and (3) a rapid emergence of storage options at utility and consumer scale.

While prices for renewable and storage resources decline as technologies mature, a recommendation to stop investment in specific generation resources runs counter to the express requirements of the IRP process - to identify the most cost effective portfolio of resources to supply the energy needs of customers. The IRP process, as defined by the rule and as evaluated by EPE, will itself determine if in fact renewables (with or without storage) or demand-side resources can safely and reliably serve load in a more cost effective manner than "traditional" supply-side resources. The IRP rule favors resources that minimize environmental impacts where cost and service qualities are equivalent. Mr. Kurtz opines that "fossil fuel power plants are the riskiest and least cost effective resources", a presumption which EPE disagrees should be made at the onset of the IRP process, but rather these characteristics should be addressed in IRP modeling and resource selection.

Regarding generation unit retirements, this recommendation of "buying time" is predicated upon the assumption that these units will continue to operate until some indeterminate point in the future when new renewable resources would be added. However, the units in question are past their useful lives (from an engineering and safety perspective), and are much less efficient and more carbon intensive than newer units. EPE's primary duty is to provide safe and reliable service to its customers. EPE requires sufficient resources to serve load as it increases over time and does not have the luxury of "buying time". Generation unit retirement decisions also must consider reliability and safety, in addition to the IRP modeling process.

The IRP rule requires consideration of demand-side and energy efficiency resources, along with supply-side resources. EPE will model and consider those resource options as part of the portfolio analysis. Purchased power agreements are more typically considered supply-side resources, but are included with EE and DR presumably under the assumption that PPAs can be obtained to serve only peak

hours. As a practical matter, this is unlikely a viable solution for long term, large resource needs because it presumes that other entities will have excess capacity to sell during EPE's peak hours. The reality is that Western Electricity Coordinating Council (WECC) is a summer peaking system with all entities peaking in the late afternoon, similar to EPE. As such, each entity is planning to have adequate resources to meet their respective peak load requirements, not building excess generation to sell to others, like EPE, at peak. It should be clarified that EPE is not opposed to PPAs. For example, the majority of EPE's solar resources are under PPAs. Additionally, EPE does plan for some purchased power from the market, up to a manageable amount, to delay future builds. Likewise, "non-wire" alternatives to serving load should be measured on a cost basis against other resources. It is not clear how generation resources that can be located in such a way as to reduce or eliminate T&D costs would be modeled in the IRP, but EPE is exploring the recommendation. This may represent one of the factors to consider outside the IRP computer modeling which favors one resource over others.

Note: In Concern #2 of his separate comments, Mr. Kurtz makes similar recommendations regarding construction of future fossil-fueled power plants. Several times in those comments he refers to such facilities as soon facing "obsolescence". At least with respect to natural-gas fired generation, the only fossil-fuel generation EPE would be considering as a future new resource, EPE completely disagrees with Mr. Kurtz's assessment.

3. <u>"Recognize the clear advantage of utilizing energy efficiency and demand</u> response for satisfying projected resource needs"

The "Northwest Power and Conservation Council Seventh Northwest Power Plan" is referenced to support this contention, and provides a comparison of demand growth rates for EPE and areas covered by the NWPCC. Mr. Kurtz supplies additional references in his commentary on this issue (Concern #3) in separate comments.

EPE recognizes a role for EE and DR in both reducing future demand and offsetting increases in load due to customer growth, and these resource options are modeled in the IRP pursuant to the rule. Without contesting the single data point provided, EPE observes that numerous factors drive (or restrain) demand growth across different geographic and economic regions, including the statutory and regulatory frameworks which operate in different regions. Some states or regions may combine aggressive EE and DR programs for purposes of limiting growth in the total demand with regulatory ratemaking frameworks, such as decoupling, which allow utilities to maintain cost recovery in the presence of flat or even declining sales. Some states or regions may require exclusively demand-side procurement, and do not require cost competition for those resources against more traditional supply-side resources. Under the IRP in New Mexico, demand-side and supply-side resources compete equally on the basis of cost, and other requirements, to meet the goal of identifying the most cost effective portfolio of resources to serve customer demand.

EPE has shown commitment to mandatory EE requirements and diligence in EE programs. By the end of 2016, EPE achieved a cumulative total of 105,572,068 kWh savings, already meeting the 2020 statutory goal under the Efficient Use of Energy Act.

Note: In his separate comments in Concern #3, Mr. Kurtz seems to suggest that EPE's projected growth over the next 18 years, as compared with northwestern states, is the result of the lack of any effort to "manage" that growth. But regional data from the same NWPCC report indicates load growth over the same 18 year period for Colorado, New Mexico, and Arizona of 13%, 55%, and 40%, respectively. EPE's growth of 30% over the next 18 years is below the regional average of these three states of 36%, indicating EPE's load growth is on track with the region most closely related with EPE's service territory, mainly Arizona and New Mexico.

4. <u>"Invest in renewable energy if new generation is needed"</u>

This recommendation is based on observations of the cost reductions for utility-scale solar over the last 7 years (which EPE does not contest). Renewable generation resources are described as "lower cost, less risk, no fuel costs, less cost volatility, low environmental impact, no carbon emissions." The presentation also notes cost reductions for energy storage, which are asserted to be viable for "round-the-clock renewable sufficiency."

EPE's issue with this recommendation is consistent with that regarding the recommendation that EPE stop all investment in fossil fuel generation – it presupposes an outcome of the IRP planning process that goes beyond the requirements of the IRP Rule. Without debating the description of renewable or storage resources in the PAG Presentation, EPE notes that the qualities described are addressed in the Rule and can be reflected in the IRP resource selection. EPE presented in the IRP meetings plans to model storage with renewables in order to evaluate the resource combination in the portfolio analysis. Recommendations to favor one resource type over another based on factors outside the IRP Rule amount to subsidizing select resource options. While PAG participants may have a preference for renewable resource options, the IRP resource selection is explicitly based on cost and other identified factors.

Consistent with applicable regulatory rules and processes, EPE will continue to pursue more renewable additions as evidenced by EPE's Holloman Solar Project, Newman Solar Project, Texas Community Solar and the planned New Mexico Community Solar Project. As part of the IRP and in consideration of public input into this process, EPE plans to include several renewable energy resource options as part of the portfolio analysis. EPE is also looking to identify resource options such as battery storage and smaller reciprocating engines that may be coupled with intermittent renewable energy sources to facilitate their integration into EPE's system. 5. <u>"Factor in a sufficiently high risk premium for long-term, high-capital investments</u>", specifically the cost to ratepayers for; emergence of much cheaper technologies over the facilities' projected use period; higher than projected fuel costs; high probability of carbon regulation and pricing requirements; possibility of early obsolescence leading to stranded assets.

This recommendation relates to other recommendations regarding fossil fuel generation and renewable resources. While not quantified, a "sufficiently high" risk premium presumably would mean one that results in the selection of renewable resources in cost modeling. That issue aside, this approach is preferable to the recommendation that EPE simply eliminate fossil fuel generation from consideration. The IRP Rule contemplates consideration of such things as fuel price variability and carbon costs. Consideration of pricing or regulatory risk is reasonable for all resource types and should be considered or factored into cost modeling if possible. This includes such things as the recent FERC NOPR regarding fuel security with certain resource types, or the possibility of tariffs impacting capital costs for solar panels.

6. <u>"The serious challenge posed by current energy environment to EPE's customary</u> way of doing business, and to the future of the regulatory process itself"

The characterization of utility capital investment solely for purposes of profit is simply wrong and ignores the statutory and regulatory requirements under which regulated utilities operate. EPE makes capital investment when it is necessary to meet its primary duties - providing safe, reliable, and affordable energy in its service territory. The focus of integrated resource planning on identifying the most cost effective approach to providing service specifically addresses the evaluation of competing resources.

The changes EPE implemented in the IRP process are in response to recommendations from both the public and the state regulators, and reflect EPE's active involvement in developing a working framework for long-term planning while remaining focused on its primary responsibility of providing safe, reliable, and affordable energy in its service territory.

Interest in generation competition is not a function of any perceived failing of the "regulatory model", it follows naturally from the determination that effective competition is possible within a particular geographic location. For example, a determination by the Public Utility Commission of Texas that competition was not yet possible in EPE's service territory was based on an assessment of the likelihood of effective competition and competitive generation providers in the region, not on an evaluation or critique of the existing regulatory model.

Following the presentation by Mr. Kurtz, Ms. Soules presented material on certain provisions of the IRP Rule as they relate to resource selection, EPE's Loads &

Resources table (L&R), and EPE's distributed generation (DG) and EE forecasts as reflected in the L&R. This section of the PAG Presentation concludes with a set of observations and conclusions on Slide 29 of the presentation which are repeated here followed by EPE's responses.

1. "There is no looming capacity shortage"

The conclusion that EPE's 20-year forecast of customer demand and resource capacity does not indicate a need for new resources, is predicated on incorrect assumptions regarding unit retirements and DG capacity growth. EPE's planned unit retirement, reflected on the L&R, is an ongoing discussion within the PAG meetings, and was subsequently addressed in a PAG meeting scheduled and dedicated to the subject. EPE explained in that meeting that an engineering study had been commissioned to examine the units with planned retirements within the planning horizon of the IRP. Obviously, any conclusion regarding retirement dates of existing generation will impact the L&R and the IRP analysis. That particular variable, as it relates to the recommendations in the PAG Presentation, will not be repeated here. The impact of the DG capacity forecast as it relates to the L&R and system capacity requirements is addressed below. EPE's current position is that resource additions are required as indicated even when accounting for changes in the L&R with future updates to the demand forecast.

2. <u>"There are challenges with this L&R Table"</u>

The PAG Presentation identifies several issues, which are characterized as compromising the accuracy of EPE's existing L&R. One issue is unit retirements as they impact resource needs; and, as noted above, EPE addressed that issue through a separate PAG meeting dedicated to that issue. The PAG Presentation also alleges math errors related to certain components, and proposes format changes to the organization of the table itself (Slide 20). EPE has confirmed that the L&R has no math errors. While the proposed reformulation of the calculations in the L&R presents an alternative, EPE elects to retain the existing format. The L&R is used extensively by groups within EPE and format changes simply result in administrative complications. On several occasions and at several PAG meetings, EPE presented a detailed walk-through of the L&R and the underlying assumptions.

The PAG Presentation also claims that modifications to EPE's forecast of DG capacity are required and it presents an alternative forecast which would produce significantly higher DG capacity in every year of the L&R as compared with EPE's forecast. The proposed forecast is based on an incorrect assumption that DG load growth in EPE's service territory has been "exponential". Ms. Soules contends that EPE's forecast, as shown in the L&R, is "unrealistic", and counters with a forecast that would produce connected DG capacity of 1,302 MW in 2027 (as compared with EPE's forecast of 55 MW). This section of the PAG Presentation concludes with a revised forecast producing connected DG capacity of 383 MW in 2027.

EPE has not seen "exponential" growth in interconnected DG systems or interconnected capacity over any period, as represented in the PAG Presentation, and several other issues exist with the forecast presented in the PAG Presentation. First, it appears to take as a starting point DG interconnected capacity of 63 MW at the end of 2017, which is roughly twice the amount EPE has interconnected as of the end of October 2017. Clearly this starting point is radically overstated and results in inflated annual estimates over the 20-year L&R. The revised forecast is more reasonable in its assumptions, after accounting for the 2018 estimate, but still assumes an increase of 35-40 MW year-to-year over the next 20 years, which EPE considers unreasonable.

EPE forecasts additions to DG capacity each year in the forecast based on the average increase in the number of customer interconnections over the most recent two historical years. This approach captures near term changes in interconnection rates due to current factors, such as solar PV costs, utility rates, etc. Average system capacity has been fairly constant over the last five years, and EPE applies that system capacity to its interconnection forecast to produce total DG capacity (which is reduced for an availability factor of 45% at time of peak for L&R purposes). EPE's forecast is more consistent based on recent historical DG activity. In addition, a DG forecast should recognize natural factors which will tend to restrain growth in DG and ultimately cap overall capacity. These factors include the relatively high cost of small scale solar as compared with utility-scale facilities, and reductions over time in subsidies for small DG. EPE will continue to evaluate its DG forecast annually to reflect all relevant factors and produce the most accurate estimates possible.

Note: Ms. Soules also raises questions regarding how EE and storage are reflected in the L&R. The L&R uses newer EE data than some other planning reports. EPE intends that the EE forecast embedded in the L&R table used for IRP purposes reflect the most current historical data available. Although EPE currently has no storage resource in its existing portfolio, the L&R can be modified to include storage either as a separate item or combined in the identification of "new build" generation.

3. "EPE's generating fleet is aging and there needs to be a plan for retirements"

The PAG Presentation recommends that renewable resources including energy storage, energy efficiency, and demand response be put in place to enable retirements when they are needed and justified, and that retirements should not be replaced with fossil fuel based generation, but only with renewable resources.

EPE notes it does have a plan for unit retirements, which is clearly reflected in the L&R, and is concurrently evaluating options for life extensions for certain resources where it is justified by cost and safety considerations. Decisions regarding the operation of units that are well past their useful lives are generally day-to-day operational decisions and not solely a factor of long term resource planning.

As with similar recommendations by Mr. Kurtz, this preference is not consistent with the IRP Rule except to the extent that these resources are competitive on a cost basis. As noted previously, renewable resources which minimize environmental impacts are preferred in the IRP where the cost and service characteristics of the associated generation portfolios are competitive with other portfolios with fewer or no renewable resources. The rule requires the inclusion of equivalent "service quality" as a factor in portfolio comparisons. First and foremost, the generation portfolio must be able to supply customer demand for energy. Some of the characteristics of renewable resources (degree of dispatch ability, intermittency and availability) make it necessary to couple them with complimentary resources in order to serve certain customer load characteristics.

EPE's IRP portfolio modeling compares resources on a consistent basis, and considers options such as combining storage with intermittent resources. EPE will also overlay benefits or risk factors related to different generation resources that may not be captured in cost modeling.

Note: Ms. Soules devotes several slides to an assessment of how to define and quantify the IRP Rules reference to "equivalent" and "minimize" with respect to renewable resources. EPE does not agree with this proposal. It is best to discuss this aspect of the Rule once the output data from Strategist runs is available, with the inclusion of the sensitivity runs and/or varying portfolio scenarios. At that time, discussion regarding equivalent resources as defined in the Rule can be had based on portfolios and costs.

4. <u>"How to assure regulators and the public that true, reasonable, responsible values are being assumed?"</u>

The PAG Presentation provides a revised L&R table based on the above-referenced recommendations, and concludes with the question of "given the significantly different picture painted by this L&R Table, how to assure regulators and the public that true, reasonable, responsible values are being assumed?"

Clearly, the process of developing the final IRP Report and resource recommendations pursuant to the Rule and in concert with the public advisory process is the path to assuring regulators and the public that the EPE has identified "the most cost effective portfolio of resources to supply the energy needs of customers."