CITY OF EL PASO, TEXAS
AGENDA ITEM
DEPARTMENT HEAD'S SUMMARY FORM

AGENDA DATE: **August 30, 2021**

PUBLIC HEARING DATE: **Not applicable**

CONTACT PERSON(S): **Elizabeth Triggs, (915) 212-1619, TriggsEK@elpasotexas.gov**

DISTRICT(S) AFFECTED: **All Districts**

STRATEGIC GOAL: **Goal 6. Set the standard for sound governance and fiscal management**

SUBGOAL: **Sub-goal 6.8: Implement leading-edge practices for achieving quality and performance excellence**

SUBJECT:
Presentation by the El Paso Electric Company of the completed Renewable Generation Study, as required by Ordinance No. 019022, including the renewable generation commitments, opportunities, and goals identified by the Study.

BACKGROUND / DISCUSSION:
On February 4, 2020, City Council approved an amendment to its franchise agreement with the El Paso Electric Company ("EPE") which requires the completion of a study concerning renewable generation ("Renewable Generation Study") and share the results of the Study with the City shortly after its completion. The purpose of this item is for EPE to present the results of the Renewable Generation Study, including the following seven deliverables:

1. An analysis of the technical feasibility of integrating utility-scale renewable generation into EPE's utility system;
2. Possible costs and operational impacts related to the integration of utility-scale renewable generation into EPE's Texas service territory;
3. Reasonable commitments EPE can make to increase the integration of renewable generation in its Texas generation portfolio;
4. Legislative or regulatory changes, if any, that may be required to increase utility-scale renewable generation in EPE's Texas service territory and the strategies necessary to implement those changes;
5. Potential voluntary renewable generation program offerings to allow customers to increase their use of renewable resources within EPE's Texas service territory;
6. Grant opportunities for EPE, the City, or both to increase the integration of renewable generation in EPE's Texas generation portfolio; and
7. Potential renewable generation programs to assist with low-income assistance programs.

In accordance with the approved amendment, Ordinance No. 019022, EPE will be required to report to the City Council no less than two times per year on its progress toward the renewable generation commitments, opportunities, and goals identified by the Renewable Generation Study.

PRIOR COUNCIL ACTION:
On February 4, 2020, in accordance with Ordinance No. 16090, the City Council consented to the merger of EPE and Sun Merger Sub Inc., resulting in EPE becoming a direct wholly owned subsidiary of Sun Jupiter Holdings, LLC; and additionally, approved an amendment to its franchise agreement with the El Paso Electric Company to allow for assignment of the franchise to EPE following the merger. As consideration for City Council's approval of the merger and subsequent assignment of its franchise agreement, EPE committed to complete the Renewable Generation Study, among other things.

AMOUNT AND SOURCE OF FUNDING:
None

HAVE ALL AFFECTED DEPARTMENTS BEEN NOTIFIED? X YES ___NO

PRIMARY DEPARTMENT: **City Manager's Office**

SECONDARY DEPARTMENT: **City Attorney's Office**

*********************REQUIRED AUTHORIZATION*********************

DEPARTMENT HEAD: Elizabeth Triggs

Elizabeth Triggs, Strategic Partnerships Officer

DRAFT

Renewable Generation Study - City of El Paso

The Electric Company

El Paso Electric

August 31, 2021

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I. Introduction

El Paso Electric Company ("EPE" or the "Company") presents the results of its Renewable Generation Study for the City of El Paso (the "Renewable Study") pursuant to section 9.5 of its Franchise Agreement,[1] which requires the Company to complete a study concerning renewable generation and present the findings of such study to the City of El Paso, Texas ("City"). There are a total of seven deliverables for the agreed to Renewable Study. The following three topics, identified by the relevant sections of the Franchise Agreement, required to be addressed by the Renewable Study are included in the technical study as documented in the body of this report.

> 9.5(b)1 – The technical feasibility of integrating utility-scale renewable generation into the Company's utility system and the changes and impacts the Company's transmission and distribution system;
> 9.5(b)2 – Possible costs and operational impacts related to the integration of utility-scale renewable generation into the Company's Texas service territory; and
> 9.5(b)5 – Reasonable commitments that the Company can make to increase the integration of renewable generation in the Company's Texas generation portfolio

The remainder of the topics listed below are not encompassed within the technical study, rather they are analyses for potential grants, programs, or policy changes that may further promote the integration of renewables.

> 9.5(b)3 – Legislative or regulatory changes, if any, that may be required to increase utility-scale renewable generation in Company's Texas service territory and the legislative strategies necessary to implement such legislative or regulatory changes;
> 9.5(b)(4) – Potential voluntary renewable generation program offerings to allow customers to increase their use of renewable resources within the El Paso, Texas, city limits and the Company's Texas service territory;
> 9.5(b)(6) – Grant opportunities for the Company, the City, or both to increase the integration of renewable generation in EPE's Texas generation portfolio; and
> 9.5(b)(7) – Potential renewable generation programs to assist with low-income assistance programs such as the Low-Income Home Energy Assistance Program or additional incentives for distributed generation.

EPE completed the Renewable Study utilizing the definition of renewable energy found within the Public Utility Regulatory Act[2] § 39.904(d):

[1] City of El Paso Ordinance 016090 (Jul. 12, 2005), as amended by City of El Paso Ordinances 017460 (Nov. 16, 2010), 018772 (Mar. 20, 2018), and 019022 (Feb. 4, 2020).

[2] Tex. Util. Code §§ 11.001 – 66.016.

> [A]ny technology that exclusively relies on an energy source that is naturally regenerated over a short time and derived directly from the sun, indirectly from the sun, or from moving water or other natural movements and mechanisms of the environment. Renewable energy technologies include those that rely on energy derived directly from the sun, wind, geothermal, hydroelectric wave or tidal energy, or on biomass or biomass-based waste products, including landfill gas. A renewable energy technology does not rely on energy resources derived from fossil fuels, waste products from fossil fuels, or waste products from inorganic resources.

The Company's existing resources provide a foundation for developing EPE's 2021 Integrated Resource Plan ("IRP"). The goal of the IRP is to produce the most cost-effective resource portfolio that minimizes cost to our customers while meeting or exceeding reliability and Renewable Portfolio Standard[3] requirements. EPE utilizes its current supply side resources to satisfy the bulk of its customers' electrical demands with power generated from company-owned generating facilities and third-party purchased power agreement facilities fueled by solar, natural gas, and uranium. Further, EPE utilizes Demand Side Management ("DSM") to encourage consumers to use less energy during peak load hours or to shift that usage to off-peak hours in order to reduce the need for additional power plants.

EPE's carbon footprint is among the lowest one-third of the utility industry due to its ownership in the Palo Verde Generating Station and the fact that EPE exited from coal generation in 2016. Table 1 shows a comparison of output emissions of EPE, the US Power Sector, the southwestern region of WECC, New Mexico, and Texas. It is key to note that EPE has a lower carbon footprint than all the utilities combined within the southwestern region of WECC when comparing in pounds per megawatt hour ("lbs/MWh").

Table 1. Comparison of 2019 Output Emissions

2019 Output Emissions	CO_{2e} (lbs/MWh)
El Paso Electric	543
U.S. Power Sector	884
WECC Southwest	957
New Mexico	1327
Texas	913

U.S. EPA, 2021. Emissions & Generation Resource Integrated Database (eGRID) at https://www.epa.gov/egrid/summary-data

The Renewable Study explores the costs and feasibility of further decarbonization and maximization of renewable integration beyond EPE's already low carbon footprint. The

[3] EPE is subject to Renewable Portfolio Standards in both Texas and New Mexico. 16 Tex. Admin Code § 25.173, § 17.9.572 New Mexico Administrative Code.

Renewable Study is the Texas jurisdictional offshoot study of EPE's 2021 IRP which was utilized for the following purposes:

1. Renewable Study
2. New Mexico Integrated Resource Plan[4]
3. EPE Corporate Carbon Free Energy Goals

All three of the initiatives required technical analyses that are similar in methodologies and addressing them via the IRP was the most efficient and comprehensive approach.

II. Integrated Resource Plan

The current draft of the full IRP Report may be found on EPE's public website at the following link.

https://www.epelectric.com/company/regulatory/2020-2021-new-mexico-integrated-resource-plan-public-meetings

While not final as of the date of this report,[5] the following IRP summary and description is provided for purposes of this Renewable Study. The IRP develops an integrated resource portfolio to safely, reliably, and cost-effectively meet the energy needs of EPE customers for the next twenty years. This requirement to balance safety, reliability, and cost is in line with the Public Utility Commission of Texas's practice of requiring utilities to select the lowest cost portfolio that is safe and reliable. Although solely required by New Mexico, the IRP addresses both EPE's New Mexico and Texas jurisdictional resource needs. Within the IRP study, various types of utility-scale renewable resource technologies are considered along with the integration of such resources with conventional, nonrenewable energy resources to create an optimal portfolio for EPE customers. Resource options modeled in the 2021 IRP include the following utility-scale resources: solar photovoltaic, wind, battery storage, conventional gas generation,[6] biomass, geothermal, and DSM. For renewable resources and battery storage, EPE utilized the National Renewable Energy Laboratory ("NREL")[7] cost decline projections to more accurately incorporate the effects of those cost declines in resource selections. The resulting resource type additions for future years are shown in Table 2.

[4] At this time, Texas does not have a requirement that a utility publish its IRP.

[5] EPE's IRP is set to be finalized on September 16, 2021.

[6] The conventional gas resources modeled are assumed to be hydrogen fuel capable and thus may be converted to have a zero-carbon output.

[7] NREL is a federally funded research and development center sponsored by the Department of Energy that specializes in the research and development of renewable energy, sustainable transportation, energy efficiency, and the integration and optimization of energy systems.

Table 2. Total System Least Cost Portfolio Incremental Resource Additions (MW)

Resource Category	2025	2027	2031	2035	2040	2045
Battery	*127*		*311*	*540*	*101*	*197*
Gas_New	-	-	-	*202*	*189*	*157*
Gas_5-Yr Extension	*74*	*313*	-	-	-	-
Nuclear	-	-	-	-	-	-
Solar	*236*	-	*202*	*482*	*101*	*531*
Wind	*102*	-	-	-	-	*95*

Due to continued technological advancements and cost declines for renewables and battery storage, a considerable amount of renewables and battery storage was selected by the capacity expansion model. The capacity expansion model is used to evaluate and select the least-cost portfolio of electricity generators, transmission, and storage needed to reliably serve load over the planning period. The selected resource additions result in the optimal cost-effective resource portfolio. The battery storage and conventional gas generation resources compliment the intermittent solar resources. Further, it's important to note that the actual resource additions in the future will be determined by the results of competitive requests for proposals and may differ based on future changes to forecasted loads, economic conditions, technological advances, and environmental and regulatory standards. The resulting installed capacity by resource type, existing plus new resources, is shown in Table 3.

Table 3. Installed Existing Plus New Resource Capacity (MW)

Resource Category	2025	2027	2031	2035	2040	2045
Battery	*177*	*177*	*488*	*1,029*	*1,129*	*1,277*
BTM Solar[8]	*80*	*108*	*166*	*221*	*289*	*368*
DR[9]	*56*	*61*	*71*	*81*	*93*	*93*
Gas	*1,531*	*1,531*	*1,395*	*1,136*	*1,325*	*1,482*
Nuclear	*622*	*622*	*622*	*622*	*622*	*622*
Solar	*621*	*621*	*823*	*1,235*	*1,309*	*1,561*
Wind	*102*	*102*	*102*	*102*	*102*	*197*

[8] BTM Solar is behind the meter solar, meaning that BTM Solar is produced behind a customer's meter (e.g., roof-top solar).

[9] DR means demand response, which are programs that ask consumers to lower their energy use during peak hours or events that limit the system's overall capacity. Examples of such programs include utility control of refrigerated air conditioning thermostats to manage loading during peak hours.

The full IRP report referenced earlier provides the full details of modeling methodologies, inputs, sensitivity scenarios, and modeling results.

III. City of El Paso Renewable Study

EPE expanded the IRP analysis to include considerations for portfolios that provided higher renewable energy integration and a higher carbon-free energy mix for the Renewable Study. This was accomplished by imposing carbon-free energy mix requirements in the modeling, which naturally resulted in a higher integration of renewable energy. The Renewable Study also considered resource portfolio scenarios that included 100% carbon-free energy by the year 2040. The goal of increasing renewable integration, however, is limited by two technical constraints on EPE's system: 1) transmission grid stability needs, which requires the use of dispatchable combustion generation for the last 10-15% of energy mix, potentially in the form of non-carbon hydrogen fuel in the future and 2) EPE's existing carbon-free energy from the Palo Verde Nuclear Generating Station that currently provides approximately 45 to 50% of our customers' energy needs. Factoring in all this, the Renewable Study produced a maximum renewable energy resource mix of approximately 50 to 60% by 2040.

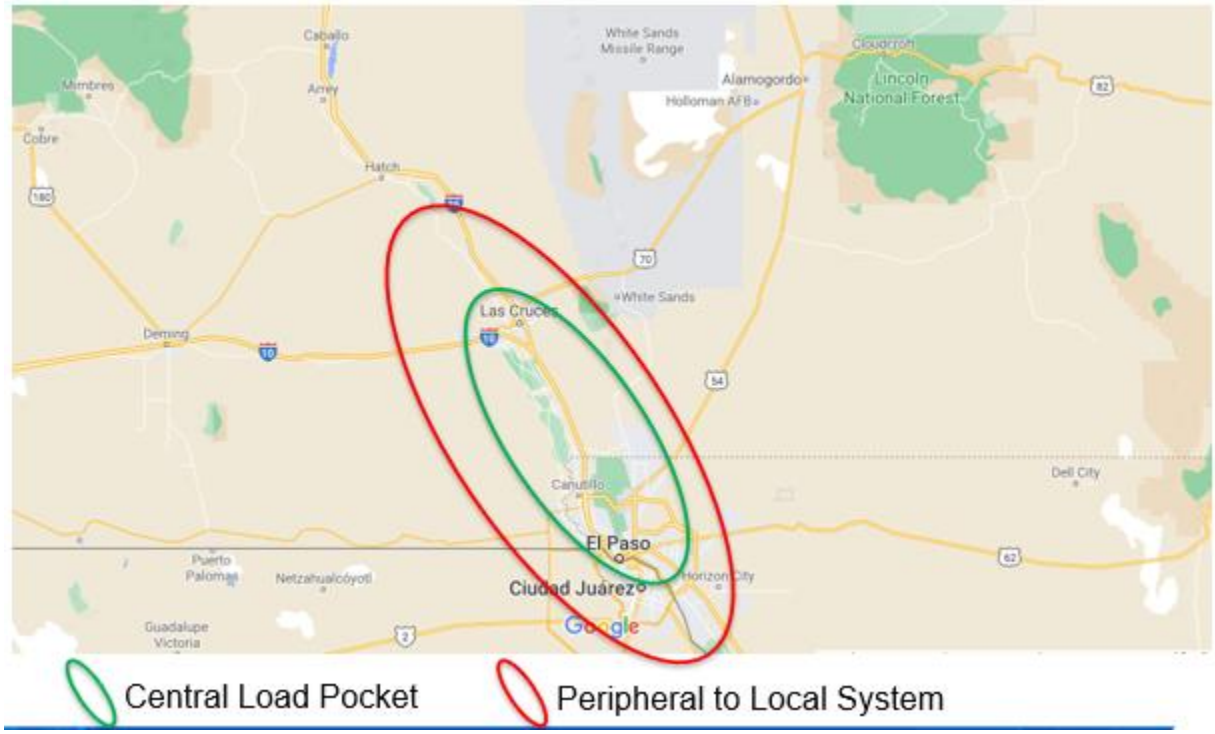
IV. Transmission Constraints

Transmission considerations are an essential part of the task of identifying a cost-effective resource portfolio in the IRP. This is also true for the Renewable Study in assessing grid reliability at higher levels of variable energy resources such as renewables.

First, it is important to identify the potential for EPE to import resources that are capable of reaching EPE's load. For example, as shown in Figure 1, available wind and geothermal resources are located in specific geographical areas that are not within the central load pocket of EPE's service area. Figure 2 shows EPE's local and peripheral load pocket areas. As such, to truly analyze the costs associated with these resources, transmission upgrade costs between the resource locations and EPE's load pockets were added to the costs associated with those resource options.

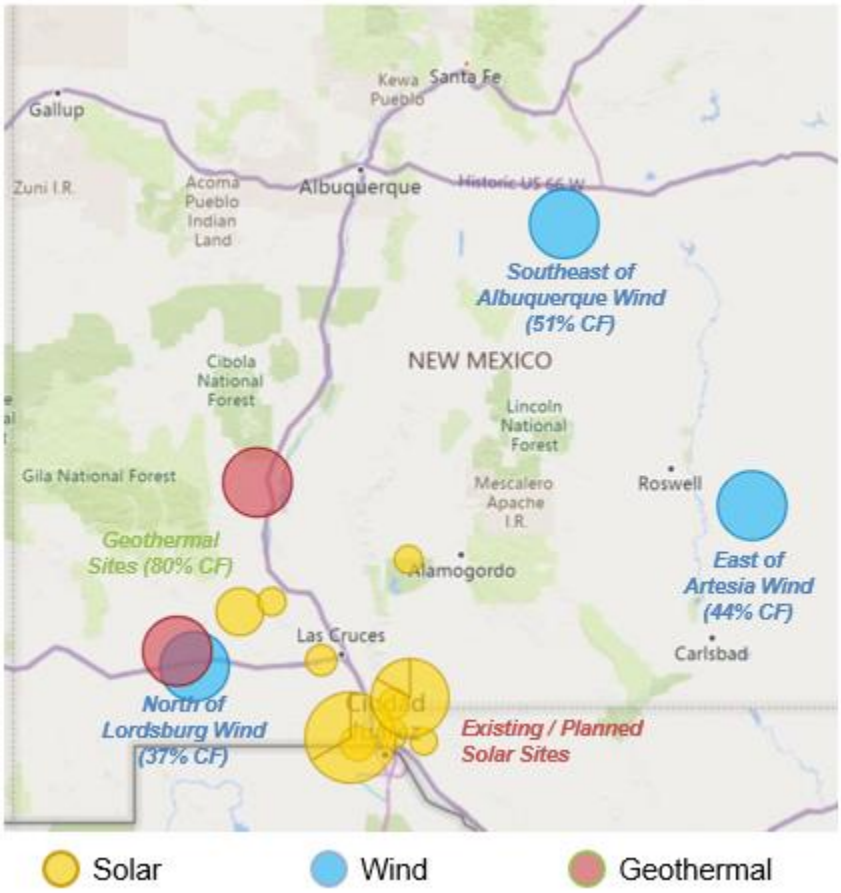
Solar is different, in that EPE identified a significant amount of potentially available solar capacity near the fringes of where the bulk of EPE's load resides on its system. Anticipated solar facilities of the size being considered as potentially available for future portfolios are expected to be located on the periphery of EPE's Las Cruces and El Paso load pockets. This can clearly be seen when comparing the available solar resources in Figure 1 with the periphery of EPE's Las Cruces and El Paso load pockets in Figure 2. With respect to battery storage as well as gas generation resources, these resources are potentially available in close proximity to EPE's load. They tend to require less land and may be more readily sited closer to load, resulting (depending on the size of the project and its location) in minimal to no additional transmission costs.

Figure 1 - EPE Local and Peripheral Areas for New Renewable Resources[10]



[10] EPE utilized NREL's renewable resource potential maps to identify geographical sites closest to EPE's system for potential wind and geothermal resources.

Figure 2 - EPE Renewable Resource Geographical Locations



Second, it is important to consider the impact on the electrical system reliability from the increased utilization of renewable and storage resource options instead of conventional, natural gas fired generation. EPE evaluated and identified for study years 2030 and 2038 the system reliability impacts on EPE's service territory that will result from increased integration of renewable resources on EPE's system. Increased renewable generation was assumed to partially replace existing EPE-owned conventional gas generation as a percentage of EPE's overall resource mix. The assessment included various generation dispatch scenarios that minimized the dispatch of natural gas resources to identify reliability issues. EPE also conducted a short circuit ratio analysis[11] to identify the potential that breakers would exceed their operational limits as a result of the displacement of gas generation by the increased integration of renewable resources and battery storage options on EPE's system. The analyses considered a range of potential situations to test whether the greater reliance on intermittent renewable resources and battery storage had impacts

[11] A short circuit ratio analysis is performed to assess a bulk electric system's ability to withstand a fault and maintain stability without voltage collapse. Conventional generation provides inertia to withstand and mitigate fault impacts. Inverter based technologies do not provide the same characteristics of inertia.

on the reliability of EPE's system. In electrical engineering terms, the analyses included steady state, transient stability, and reactive margin (V-Q) analyses to identify potential reliability criteria violations for pre- and post-contingency conditions. These studies simulate major and minor system disturbances to analyze the response of the power system under high levels of renewable resource integration.

EPE's evaluation indicated that the incorporation of the planned amount of renewable and battery storage could be accomplished, but they would not be without some reliability concerns. EPE would have to install additional electrical facilities to remedy stability issues in study year 2030 and additional facilities in the 2038 timeframe for increased renewable integration. The current analysis also indicated that while in 2038 these additional facilities would comply with reliability standard requirements, they may result in additional load-shedding events in order to maintain system stability during contingencies. Consequently, EPE intends to closely monitor the evolution of the Western Interconnection and continue to evaluate how to best maintain system reliability. The 2038 case analyzed for transmission stability was comparable to an 80% carbon-free scenario. The following is a more detailed discussion of what this evaluation entailed:

- Voltage stability was an issue. Voltage exceedances occurred on the higher voltage transmission lines in EPE's service territory in study year 2030 as well as in study year 2038. It is likely that reactive support devices, such as static VAR compensators (SVCs), static compensators (STATCOMs), synchronous condensers, and/or additional local generation could address this issue in study year 2030. Such measures, alone, are not expected to be able to fully remedy this issue in study year 2038.

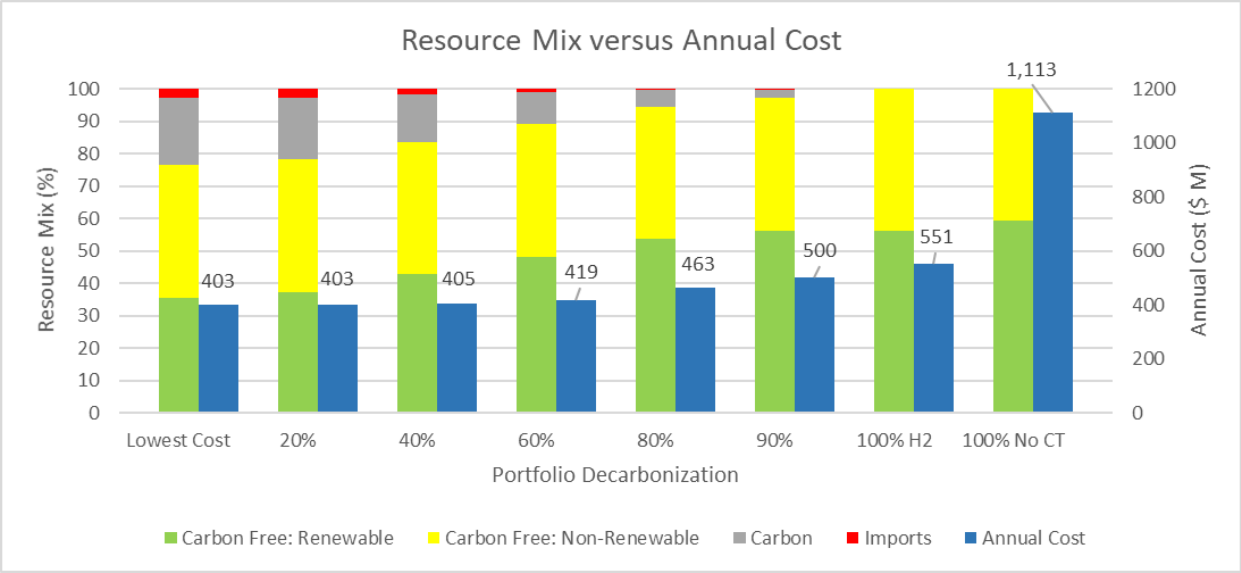
- EPE's load is likely to experience greater load shedding during multiple contingencies. This is especially true for study year 2038. With the reduction in conventional, natural gas generation (and a corresponding increase in renewable generation), there is a reduction in the level of dynamic voltage support that conventional generation would have provided. With less dynamic voltage support available, the risk of system instability increases. Load shedding is a way to mitigate the risk of system instability. While most of EPE's area can accommodate significant inverter-based resources for the 2038 study year (relying on activation of EPE's Under Voltage Load Shed program when necessary to maintain reliability when dynamic voltage support is insufficient), investment in transmission infrastructure may be necessary to mitigate this reliability risk on a long-term basis so that the EPE system can accommodate the projected growth in its load without substantial increases in the frequency and scope of load shedding events. The type and scope of effective mitigation in the form of transmission infrastructure will be dependent in part to the Western Interconnection's evolution. EPE's preliminary analysis was based on the Western Interconnection's current system and showed a system encroaching on threshold limitations for reliability due to short circuit. It is recommended that an assessment be

performed every three years to capture the Western Interconnection's system transformation from gas and coal units to inverter-based generation, and the impact this will have on inertia and short circuit. The reduction in conventional generation will certainly impact EPE's short circuit capability beyond 2030, thus requiring continued evaluation.

V. Customer Affordability

The cost impact and customer affordability for greater renewable energy integration was also assessed by the technical study. The relationship between renewable energy integration and cost in year 2040 is shown in Figure 3. As can be seen in Figure 3, the annual cost increases as more clean energy is added, with significant increases when clean energy makes up 80% or greater of the portfolio.

Figure 3 - Renewable Energy Integration and Cost for Study Year 2040



EPE's current carbon footprint and its share of carbon-free nuclear energy position the Company to attain a high carbon-free energy mix by 2040. For example, it is noted that the 40% decarbonization scenario results in a resource mix that is greater than 80% of the energy mix (denoted by the sum of the yellow and green bars). This results in the renewable energy mix to be between 40 to 45% (green bar) while showing a projected modest cost increase (blue bars) of $405 million annually versus $403 million from the least cost portfolio.

The cost increase trend for greater decarbonization and renewable integration can be seen with the relatively gradual cost increase through the 80% decarbonization as denoted by the blue bars. A

greater cost increase is noted for the last 10% of decarbonization in order to be 100% carbon-free. Additionally, cost impacts for various options for attaining 100% carbon-free are also shared. Specifically, it is noted that if pursuing 100% carbon-free with only renewables and battery storage, annual costs may double over the least cost scenario. However, EPE remains optimistic that continued technology improvements will produce lower costs into the future.

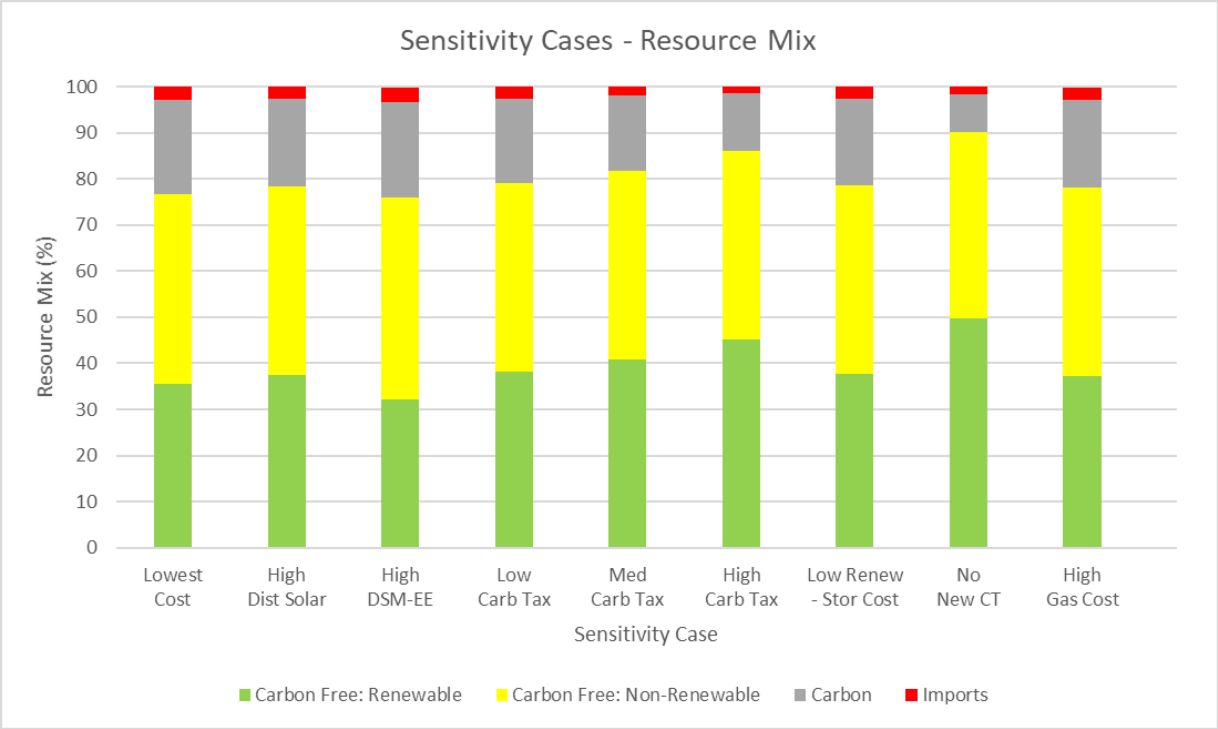
VI. Modeling Sensitivities

EPE also modeled sensitivities for various costs and inputs to assess impacts to renewable integration. EPE modeled the following sensitivities:

- High adoption for distributed solar (High Dist Solar): This analysis considered the effect of a greater amount of customers adopting distributed solar resources.
- High adoption for demand response and energy efficiency (High DSM-EE): This analysis considered the effect of reduced customer demand via DSM programs and energy efficiency options.
- Carbon tax – three levels (Low Carb Tax, Med Carb Tax, High Carb Tax): These analyses considered the impacts to resource selection if there were an additional carbon tax imposed on gas generation.
- Greater cost declines for renewables and storage (Low Renew - Stor Cost): This analysis considered the impacts of renewables and battery storage experiencing cost declines below NREL's projected declines.
- High gas fuel cost (High Gas Cost): This final analysis considered the impacts of higher costs for natural gas fuel.

The resulting resource mix for each sensitivity analysis is illustrated in Figure 4. It is noted that none of the sensitivities have a significant impact on the 2040 resource mix. This is related to the reliability component of the analysis that looks to ensure sufficient resources are available to meet the energy needs and results in the need of firm dispatchable resources. As previously mentioned, future technology advancements will be necessary for that final 10% of decarbonization. As the IRP process is re-visited and updated every three years, EPE will adjust its portfolio mix and or cost curves utilized to develop its analysis to reflect the most current price curves.

Figure 4 - Sensitivity Resource Mix for Study Year 2040



VII. 80% Clean Energy by 2035 Goal and Pursue 100% Decarbonization of EPE's Generation Portfolio by 2045[12]

EPE conducted a comprehensive analysis for balancing reliable electric service, customer affordability, and EPE's carbon footprint. The Company took into consideration transmission reliability requirements given known technology, the estimated cost impacts of greater renewable energy integration, and expected continued technology evolution trajectories for carbon free resource options.

EPE intends to serve our community's power needs with at least 80% carbon-free energy by 2035 with a continued pursuit of 100% decarbonization of our generation portfolio by 2045 as expected technological advancements in performance and costs continue to evolve. EPE expects to meet this goal through the continued deployment of solar and other renewable resources coupled with storage over the coming years, along with our existing carbon-free nuclear generation. EPE is confident that the pathway to 80% carbon-free energy is attainable in a manner that is reliable and

[12] Scope 1 Emissions

affordable for all its customers and looks forward to leading this energy transformation with the community.

EPE is optimistic that the ongoing technology evolution will ultimately lead to even deeper decarbonization of its generation portfolio, beyond the 80% clean energy milestone. EPE will continue to evaluate alternative energy technologies, fuels, and efficiency strategies to identify progressively cleaner ways to serve the region and EPE's customers reliably and affordably. EPE is encouraged by federal and state clean energy initiatives and supportive of proposals that will accelerate technology development to make even more ambitious targets economically viable for the region.

VIII. Legislative and Regulatory Changes

At this time, EPE has not identified any legislative or regulatory changes that are needed to facilitate the increased incorporation of renewables and battery storage. One notable statutory requirement in some states that EPE believes is unnecessary in Texas is mandatory renewable energy requirements, as often addressed through the setting of Renewable Portfolio Standards. Based on the analysis EPE performed in the IRP and supporting the Renewable Study, the Company concludes that a legislative effort in this regard is unnecessary. Given the technological advances and decreasing costs with regard to renewable energy and battery storage, these resources have become more available under the current statutory and regulatory structure. As such, EPE is confident that it will meet its goal of 80% carbon-free resources by 2035 and will be able to pursue its ultimate goal of being 100% carbon-free by 2040.

IX. Voluntary Green Offering Programs

From its analysis, EPE has identified two program offerings, which EPE believes present a substantial opportunity for renewable resources for customers within the City of El Paso and that will increase access to renewable resources for its low-income customers.

Texas Community Solar

EPE currently has a voluntary Community Solar program that supplies participating customers from 5 MW of existing solar generation. The community solar program is fully subscribed with approximately 2,500 customers signed up.

There continues to be interest by customers in participating in community solar, and EPE is maintaining a waiting list in anticipation of expanding the program. The program offers an opportunity for customer to increase the amount of renewable energy they consume without the cost of installing roof-top solar. The program also offers a renewable opportunity to low-income customers or those customers that do not own their home

Based on the success of community solar EPE is planning to expand the capacity of renewable generation systems supplying he program to provide more customers the opportunity to participate and receive a larger portion of their energy from renewable resources.

EPE and the City are also currently evaluating a dedicated renewable facility to be located at the El Paso International Airport which could simultaneously supply renewable energy to offset airport load and provide renewable energy for an expanded Community Solar program.

Dedicated Solar Plus Program

EPE is actively developing a voluntary green offering for educational, non-military governmental, large commercial, and industrial customers. Participating customers will be able to voluntary subscribe to a defined capacity at a fixed rate for the renewable energy output from a dedicated solar facility. Dedicated facilities would be in the approximate range of 10-40 MW capacity, which provides customers the cost benefits of large, utility scale solar. Participating customers will be able to aggregate load from multiple accounts, and the renewable energy provided by a customers' subscription offsets energy otherwise produced with EPE's system generation resources.

The Texas Community Solar program, offered to residential and small commercial customers, provides for no limit or penalty for customers leaving the program and no minimum participation period is required. Because of size and cost of the facilities serving the DSPP, EPE intends to require a long-term commitment from customers to subscribe and take service for some portion of the life of the facilities (10- to 25-year contracts).

EPE plans to move forward with filing for approval of the Dedicated Solar Plus Program with the Public Utility Commission when feasible solar generation facilities needed to supply the program are identified. The Company is also communicating with potential subscribers interested in committing to the program.

X. Grant Opportunities

EPE actively monitors the opportunities for potential grants which may facilitate additional renewable resources. In 2020, EPE identified and applied for a grant offering for battery storage and is awaiting a decision on the application.

Additionally, EPE will closely monitor the development of grant opportunities that are included in the INVEST in America Act[13] that was recently approved by the Senate. The act provides the ability for utilities to offset costs related to smart grid functions to include advanced transmission

[13] H.R. 3684, Investing in a New Vision for the Environment and Surface Transportation in America Act (INVEST in America Act).

technologies, technology necessary to facilitate the aggregation or integration of distributed energy resources, and to facilitate the integration of energy storage and renewable energy resources into the grid. Additionally, the Company will review opportunities within the bill surrounding hydrogen, storage technology, and energy efficiency. The bill also presents opportunities to partner with public schools other not-for-profits regarding energy efficiency and renewable energy improvements. EPE will also investigate potential grants with El Paso Water regarding energy efficiency and renewable energy projects related to drinking water, stormwater, and wastewater.

XI. Conclusion

The City of El Paso Renewable Study provides a thorough analysis of the potential for renewable integration through 2045. Through this study, EPE has determined that it can meet a goal of 80% carbon-free generating resources by 2035 with a commitment to become 100% carbon-free by 2045. EPE in pursuing this ambitious but attainable goal will continue to balance our community's ever-growing and transforming energy needs while maintaining customer affordability and reliability. The Company intends to achieve that goal not only through innovative renewable energy programs but seeking grant opportunities within the INVEST in America Act and the continued anticipated decline in costs in renewable technology. This study, however, is the first step along the Company's path toward working with the communities we serve to transform our energy future to a cleaner and sustainable one.