BEFORE THE KANSAS CORPORATION COMMISSION
OF THE STATE OF KANSAS

In the Matter of the General Investigation	)	
To Examine Issues Surrounding Rate	)	Docket No. 16-GIME-403-GIE
Design for Distributed Generation Customers	)	

TESTIMONY OF THE CLIMATE AND ENERGY PROJECT ADDRESSING NON-UNANIMOUS SETTLEMENT

JUNE 20, 2017

INTRODUCTION

Q: Please state your name and business address.

A: My name is Rick Gilliam. My business address is 590 Redstone Drive, Suite 100, Broomfield, CO 80020.

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

A: I am the Program Director, DG Regulatory Policy for Vote Solar, a non-profit organization working to foster economic opportunity and mitigate climate change by bringing solar energy into the mainstream. Since 2002, Vote Solar has engaged in state, local and federal advocacy campaigns to remove regulatory barriers and implement key policies needed to bring solar to scale. Vote Solar is not a trade organization, nor does it have corporate members. Vote Solar has over 300 members in Kansas.

Q: On whose behalf are you testifying?

A: I am testifying on behalf of the Climate and Energy Project (CEP).

Q: Please provide your professional experience and qualifications.

A: I have been with Vote Solar since January of 2012 overseeing policy initiative development and implementation particularly as it relates to distributed solar generation or "DSG." Prior to joining Vote Solar, my regulatory and policy experience included five years in the Government Affairs group at Sun Edison, one of the world's largest solar developers at the time, as a manager, director and eventually vice president; twelve years with Western Resource Advocates as Senior Policy Advisor; and twelve years in the Public Service Company of Colorado (PSCo or the Company) rate division as Director of Revenue Requirements. Prior to that, I spent six years with the Federal

Energy Regulatory Commission (FERC) as a technical witness (engineer). All told, I have nearly 40 years experience in utility regulatory matters.

I have a Masters Degree in Environmental Policy and Management from the University of Denver in Denver, Colorado, and a Bachelor of Science Degree in Electrical Engineering from Rensselaer Polytechnic Institute in Troy, New York. My CV is attached at the end of this testimony as Appendix A.

Q: Have you testified previously before this Commission?

A: No, I have not. Prior to this testimony however, I submitted testimony along with CEP's Reply Comments on May 5, 2017. I have testified in proceedings before the Arizona Corporation Commission, the Public Utilities Commission of Colorado, the Idaho Public Utilities Commission, the Nevada Public Utilities Commission, the New Mexico Public Regulation Commission, the Wisconsin Public Service Commission, the Wyoming Public Service Commission, and the Federal Energy Regulatory Commission.

PURPOSE AND SUMMARY OF TESTIMONY

Q: What is the purpose of your testimony?

A: The purpose of my testimony is to address the non-unanimous settlement (NUS) submitted to the Commission by a subset of the parties to this investigatory proceeding. I will address elements of the settlement that segregate residential customers with rooftop solar resources into a new customer class, and impose a new rate structure and design that amounts to a large new fixed charge for rooftop solar customers.

Q: Please summarize your testimony.

A: My testimony addresses the provisions of the non-unanimous settlement agreement (NUS) submitted by the settling parties in this proceeding. CEP is not supporting the NUS for several reasons. First, the entire basis for NUS, contained in paragraph 9 is that DG customers have different usage characteristics. None of the settling parties however has presented any Kansas-specific data that demonstrate that this is indeed a fact. Second, it contains provisions that are based upon the assumed difference in usage characteristics that must also be rejected. Other provisions are either unnecessary or undermine Commission authority. Finally, there is a clear need for further study and analysis, and that should occur in this investigatory docket. Thus CEP recommends this docket remain open for such analysis, and that the NUS be rejected at this time.

DISTRIBUTED GENERATION IN KANSAS

Q. What is distributed generation?

A. Distributed generation, as used in this proceeding generally, and in my testimony specifically, is a subset of distributed energy resources that typically generate electricity on the site of a retail customer using a renewable resource like solar or wind energy. Such systems are typically sized such that the annual generation would be no more than the annual consumption of the host customer. However, given the generation profiles of the resources and the load profiles of the host customers, there are typically times when each of the following two situations can occur:

- Consumption equals or exceeds generation: any and all generation is consumed on-site; and

- Generation exceeds consumption: some generation is consumed on-site, and the remainder is exported off-site;

Q. What happens to the electricity generated that is exported off-site?

A. Electricity that leaves one home for example follows the path of least resistance to the nearest load and is consumed there. This happens instantaneously and there is no incremental cost to the utility. Indeed, the utility has no control over the flow and consumption of exported energy. For example if a customer with a 5kW system is only using 4 kW, the other kilowatt leaves the home and serves the non-solar neighbor, never leaving the secondary distribution system. The utility only sees a 5 kW reduction at that point in time, but does not know the mix of loads and sources of energy. Moreover, the extra kilowatt reduces the loading on the distribution system at a time of higher utility costs in the middle of the day, a benefit for all.

The neighboring customer sees no change, and does not know whether the electricity he is consuming came from the utility or his solar neighbor. Either way, he pays full retail prices for the electricity to the utility. As a result the utility recovers full retail revenue for solar electricity that is exported to a neighboring home, even if it did not generate, transmit, and distribute it.

Q. How many residential DG systems are there in Kansas?

A. My understanding is that there are approximately 700 residential systems in total. Most of these systems are connected to Westar customers. This is a very small proportion of on-site generation and ranks among the bottom 9 states in the nation.

CEP'S CONCERNS WITH THE NON-UNANIMOUS SETTLEMENT AGREEMENT

Q. Please describe the Non-unanimous Settlement Agreement (NUS).

A. In a nutshell, the NUS is an agreement among a subset of participants in this investigatory proceeding that addresses the rate and cost relationships of DG customers with the utility and other customers. The settling parties have agreed to seek from the Commission a set of findings delineated in paragraphs 9 through 17. Interestingly, most of the requests for findings restate existing authority of the utilities. The notable exception is the request for a finding of "potentially significantly different usage characteristics" of DG customers. Beyond the request for that finding, the primary function of the NUS appears to be to end the instant docket, and assure that no further study or analyses occur as part of this investigative proceeding.

A. NUS Paragraphs 9-11

Q. Please explain the finding sought by the settling parties related to usage characteristics.

A. The NUS notes in the first substantive term (paragraph 9):

> DG customers should be uniquely identified within the ratemaking process because of the potentially significant different usage characteristics. Utilities may create a separate residential class or sub-class for DG customers with their own rate design, which appropriately recovers the fixed costs of providing service to residential private DG customers, or a utility may continue to serve residential private DG customers within an existing residential rate class if the utility determines there are too few DG customers to justify a separate residential private DG class or sub-class or determines that other justification exists to retain those customers in the existing rate class. A separate rate class for DG customers is not meant to punish those customers, rather such a rate class would serve to provide clarity for both utilities and customers.

This paragraph suggests not that there <u>are</u> significant different usage characteristics, but that the characteristics are *potentially* different. In other words, Paragraph 9 tacitly acknowledges that there may not be any differences today, yet asks the Commission for a finding that utilities may create a separate rate class.

Also, CEP finds it odd that this requested finding indicates that the Settling Parties don't mean to punish DG customers, but provide clarity. Whether punishment is intended or not, it could well be the result for these customers that have invested in a new behind the meter technology, particularly if Westar's desire for a three part rate including a demand charge is imposed. I don't believe any clarity is provided with a separate rate class, unless utilities intend to subdivide the entire residential class into subgroups based on behind the meter technologies and resultant usage characteristics.

Q. Did Westar or any of the settling parties provide data or analytical support for the contention that the usage characteristics of residential DG customers are significantly different from the general body of residential customers?

A. No. Neither Westar nor the settling parties provided any data or analytical support demonstrating any significant difference in characteristics of the Kansas DG customers. A data-driven demonstration of such significant differences must be a pre-requisite to making radical changes to rate structures that will dramatically increase the costs to all or a subset of residential customers.

Q. Do you believe there are any significant differences in usage characteristics today?

A. No. Through the investigative discussions in this proceeding I obtained residential load research data and raw DG customer data from Westar. I compared the usage characteristics of the data for the DG customers of Westar[1] with the residential customer load research data and found them to be very similar.

Q. Do you believe there is the potential for significantly different usage characteristics in the future?

[1] DG customers installing distributed generation on or after October 28, 2015.

A. There is always a potential for different usage characteristics of a subgroup of customers in the future, but based upon similar proceedings in which I've been involved elsewhere, the chances of such differences are slim even at penetration rate 25 times that of Kansas. Nevertheless, significantly different usage characteristics must be proven with data and analysis either currently or in the future before major changes in rate design can be approved.

Q. Are there other references that describe differences among subgroups of customers?

A. Yes. In November of 2016 the National Association of Regulatory Utility Commissioners (NARUC) released a Distributed Energy Resources (DER) Manual[2] addressing the treatment of DER including DG resources. The manual discusses a number of the NUS elements, noting that data and analysis is necessary to inform regulators, and that similar situations should be considered. For example, in discussing differing customer characteristics and the need for separate customer classes, the manual notes the following:[3]

> One must also consider whether these customers should also be further subdivided into technology-specific classes or subclasses. It is instructive to consider what happens when a customer's usage changes for reasons other than DER. If a customer replaces an appliance or lightbulbs, or the number of people living in a home is reduced, other things being equal, there is less usage to spread costs over. It must also be noted that individual customers are not generally responsible for utility upgrades to meet specific customer actions. For example, if a customer installs an extra television or refrigerator or purchases an EV that requires an upgrade to the local transformer, the costs associated with that new infrastructure investment are recovered from the entirety of the customer class, and not from the specific customer responsible for the upgrade. To recover authorized costs, the rate increases due to reduction in usage (in a non-decoupled jurisdiction) are shifted to those customers that did not reduce their consumption. Generally, these customers would not be separated into another class, as the

[2] http://pubs.naruc.org/pub/19FDF48B-AA57-5160-DBA1-BE2E9C2F7EA0
[3] Id. p. 77-78

service supplied to each set of customers is essentially the same. Air-conditioning, electric heat, or undergrounding of distribution wires, however, are sometimes considered to be a different type of service, as the impact on costs is significantly different for customers that do not have these items.

Q. Please describe the data you used in this proceeding.

A. As noted above, the non-DG customer information for the residential customers was Westar's load research data provided in response to a CEP discovery request. The load research data[4] was already in a usable form, so I calculated maximum demand, annual consumption, and load factors for each customer.

The DG customer data was derived from raw fifteen minute metered data provided by Westar. The raw data was first screened for those customers installing DG on or after October 28, 2015, resulting in a population of 129 customers. The NUS grandfathers DG customers that installed their DG systems prior to that date, thus they are not included in the analysis. The group of 129 was further narrowed down to exclude those customers without load data, narrowing the field to 73 customers. Of these 73, 16 systems were interconnected sufficiently early to obtain one full year of data, however only 9 of those 16 have fewer than five missing hours of data. I then developed annual consumption, maximum demands and load factors for these 9 customers.

Q. How did you use these data sets?

A. I first compared the range of usage between the residential non-DG (load research) customers and the 9 DG customers who are part of the non-grandfathered group (installation on or after October 28, 2015) for which complete data exists. Table 1 shows this comparison:

[4] The load research data is for calendar year 2013.

Consumption	Residential Load Research	Non-Grandfathered DG
Population	209	9
Range Low	841	4,244
Range High	90,984	40,325
Mean	15,240	14,063

Table 1. Comparison of Residential DG and non-DG Consumption

This comparison shows that the consumption characteristics for the very limited group of DG customers for which a full year of data exists is nestled well within the population of non-DG residential customers, demonstrating that these groups of customers are not very different.

Because costs are assigned to customer classes on the basis of both demand and energy, the load factors of customers are a good basis for understanding the anticipated costs to serve various groups and subgroups of customers. The higher the load factor, the lower the unit cost to serve the customer or customer group. Table 2 shows a similar comparison as the usage table above, but comparing load factors.

Load Factors	Residential Load Research	Non-Grandfathered DG
Range Low	3%	2%
Range High	39%	33%
Mean	16%	15%
Std. Deviation	0.06	0.09

Table 2. Comparison of Residential DG and non-DG Load Factors

As above, this comparison shows that the load factor characteristics for the DG customers also fall well within the population of non-DG residential customers. While this not only demonstrates the similarity between these groups of customers, it also indicates that the costs to serve these groups would be similar.

However, the relative paucity of DG data is somewhat concerning, so in order to verify the conclusion of similarity based on consumption and load factors, I also reviewed data for grandfathered (pre-10/28/15 installed) DG customers. Following the same constructs as above, i.e. excluding customers with no data, and significant missing data, I was able to narrow down a data set for grandfathered DG customers with a full year of data to 56 for 2015 and 88 for 2016. Tables 3 and 4 below present the 2015 and 2016 evaluation results for 2015 and 2016 in the same fashion as Tables 1 and 2 above, respectively.

Usage	Residential Load Research	Non-Grandfathered DG	2015 Grandfathered DG	2016 Grandfathered DG
Population	209	9	56	88
Range Low	841	4,244	2,256	2,434
Range High	90,984	40,325	26,176	28,556
Mean	15,240	14,063	9,967	10,410

Table 3. Comparison of Residential DG and non-DG Consumption, including Grandfathered DG in 2015 and 2016

Load Factors	Residential Load Research	Non-Grandfathered DG	2015 Grandfathered DG	2016 Grandfathered DG
Range Low	3%	2%	5%	4%
Range High	39%	33%	25%	26%
Mean	16%	15%	13%	13%
Std. Deviation	0.06	0.09	0.04	0.05

Table 4. Comparison of Residential DG and non-DG Load Factors, including Grandfathered DG in 2015 and 2016

As can be seen from these tables, the corresponding values for 2015 and 2016 fall also well within the bounds of the class as a whole, further supporting the conclusion that residential DG customers usage characteristics are similar to the class as a whole.

Q. Are these data sets comparable since they are from different years?

A. Yes. I believe they are comparable. While there could be weather or other impacts from year to year that might affect customer consumption patterns, I reviewed use per

customer data from 2013 through 2016 and found less than 4% variation. Table 5 shows this comparison.

Form 1 Data	2013	2014	2015	2016
Sales (MWh)	3,409,863	3,434,301	3,309,041	3,359,568
Avg Customers	323,581	324,880	326,340	327,418
Use per customer	10,538	10,571	10,140	10,261
% of 2013 UPC		100.3%	96.2%	97.4%

Table 5. Comparison of Residential Use per Customer, 2013-2016

Q. Could the increase in DG customers, and associated reduction in consumption, explain the nearly 4% drop in use per customer between 2013 and 2015?

A. No. To evaluate this possibility, I made the extreme assumption that the host of every DG system installed prior to December 31, 2015 had zero consumption. I added back to the 2015 sales figures the average sales per customer from 2013 for every DG system (309 systems). This adjustment resulted in a change in the use per customer in 2015 of $1/10^{th}$ of 1 percent, meaning that the reduced use per customer from 2013 to 2015 is due to other factors. The calculation is shown in Table 6 below.

	2013	2015 Actual	Adjustment	2015 Adj
Sales (MWh)	3,409,863	3,309,041	3,256	3,312,297
Customers	323,581	326,340	309	326,340
Use per customer	10,538	10,140		10,150
% of 2013 UPC		96.2%		96.3%

Table 6. Comparison of Residential Use per Customer, 2013 & 2015

The takeaway message from this analysis is that use per customer has indeed declined over the past few years, but very little of it, if any, can be attributed to DG resources. The reductions are likely to be related to improved customer efficiency, effects of weather, and possibly economic factors, but not DG.

Q. Have other states reviewed similar information?

A. Yes. In a current proceeding in Utah, Rocky Mountain Power provided a comparison of load factors for residential customers from their load research and from a sample of DG customers in response to discovery. Chart 1 shows the relationship of load factors, a key driver of cost allocation, between the two groups.

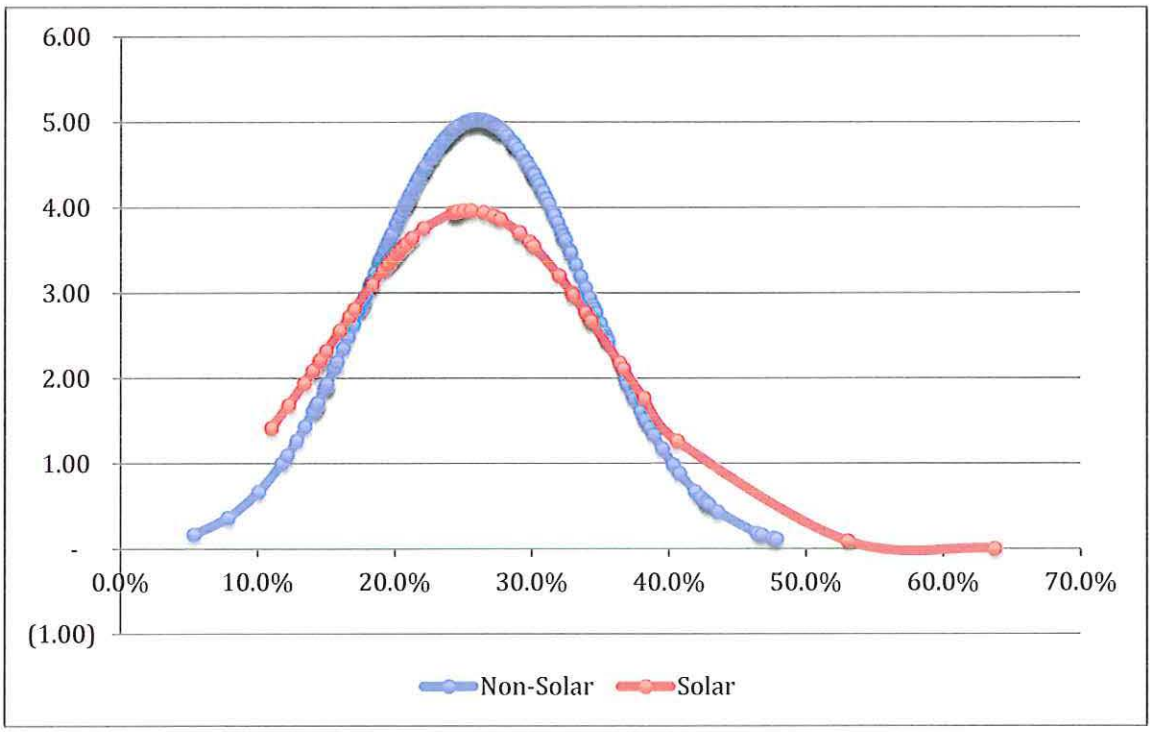

Chart 1. Rocky Mountain Power Comparison of Load Factors: Solar vs. Non-solar Customers

This chart also demonstrates little difference in load factors between those customers with DG (rooftop solar in this UT example) and the general body of residential customers.

Q. Does the NARUC DER Manual support a data-driven analysis of the differences among subgroups of customers?

A. Yes. The Manual discusses the allocation of costs and the relationship between usage characteristics and the incurrence of costs, noting in particular the need for examination of particular load profiles of various customers:

> Separating DER customers out allays concerns about other customers covering costs to the extent that those costs are associated with determinants used in allocation. If this is the case, rate structures do not necessarily have to change, as the associated costs are allocated on the appropriate basis. The remaining concerns would then be potential intra-class subsidization between technologies with different characteristics and a lack of connection between the causation of costs and their collection. In the end, regulators must examine the particular load profiles associated with various customers, including DER customers and subsets thereof, and how those profiles correspond to costs, and decide whether those differences constitute a substantial enough difference in the service provided to justify their separation.[5]

Kansas-specific differences in load profiles between DG customers and non-DG customers were not examined by the settling parties and not reflected as the basis for segregating DG customers into their own class.

Q. What do you conclude about the usage characteristics of DG customers?

A. Based on a review of the data available for Westar's residential DG customers,[6] I conclude that there is no significant difference in the usage characteristics of DG customers as compared to the residential customers as a whole. There has been no other Kansas-data based analysis of the DG customers in this proceeding, to my knowledge. Neither have any other subgroups of customers been evaluated that might have different usage characteristics due to other behind the meter technologies.

Thus there is no basis for treating DG customers differently, and no basis for NUS paragraph 10 concluding "the current two-part rate design is problematic" for DG customers. There has been no Kansas-specific evidence presented that demonstrates current rates are a problem, and thus no reason to treat sub-divisions of the residential

[5] NARUC DER Manual, 2016, p. 78.
[6] Westar is the utility with the greatest amount of DG customers that would be impacted by the NUS.

class any differently from the class as a whole. All residential customers should be treated the same until a significant difference is proven with utility-specific data. Second, because there is no significant difference, there is no urgent need to address the DG issue in such an abbreviated time frame, especially when the consequences of major rate structure changes can be so dire. The Commission should deny the requests for the findings in Paragraphs 9 and 10, and move forward cautiously.

Q. Do you have comments on Paragraph 11?

A. Yes. NUS paragraph 11 lays out a variety of options the settling utilities can pursue in future formal rate proceedings, no different than those available to the utilities without the NUS. Indeed, we could look to the DER Manual for a more comprehensive list, if that is the goal, of rate design options.

Given the lack of evidence to support a separate rate class for Westar's 129 of some 750,000 residential customers, and the related lack of support for a finding that current rates are problematic (but apparently only for those customers that reduce consumption using a specific technology or two), paragraph 11 also fails for lack of support. Specifically the three-part rate described in paragraph 11.a. has not been shown to be "appropriate" to recover costs from DG customers. Demand charges are not tied to cost-causation and do not provide an actionable price signal to customers. I addressed demand rates in more detail in previous testimony submitted as Reply Comments on May 5. The Commission should definitively reject any finding supporting the "appropriateness" of demand charges for any class or subclass of residential customers without a proper evidentiary hearing based upon Kansas-specific data and analysis. The Commission should not make a finding in the NUS that undermines its authority in the future,

particularly where there is scant evidence to support the requested finding. Indeed, no regulatory Commission in the country has approved mandatory demand rates for either a class or subclass of residential customers to date.

B. NUS Paragraphs 12-18

Q. Please discuss the finding requested in NUS Paragraph 12.

A. Paragraph 12 requires a customer education program be implemented whenever new residential DG rate structures are ordered. CEP has no objection to this finding.

Q. Please discuss the finding requested in NUS Paragraph 13.

A. Paragraph 13 requires rates for residential DG customers be cost-based. Moreover, CEP supports cost-based rates, but this is generally done for a large diverse group of residential customers, not for very small subgroups of customers. It is common knowledge that residential rates are never intended to collect the actual cost of serving each individual customer from those individual customers. For example, customers that consume less than the class average will typically contribute less than average towards demand-related costs, and vice-versa. Beginning a process of sub-dividing the large residential class into subgroups will in the end only benefit larger, higher load factor customers. Again, the need for separate rate treatment of residential DG customers has not been demonstrated and this requested finding is superfluous.

The second part of this finding request is troubling however as it seeks to limit further study in this docket and the rights of parties to bring studies and analyses to the Commission. While I'm not an attorney, this finding strikes me as limiting the due process rights of some parties. This finding request should be denied.

Q. Please discuss the finding requested in NUS Paragraph 14.

A. Paragraph 14 addresses the possibility that the Commission may order a value of resource study (i.e. cost benefit analysis). It imposes restrictions on the conduct and content of the study to assure that certain quantifiable benefits would not be fully considered. For example, the analysis is limited to a single year snapshot of the benefits, rather than a longer-term perspective as is used for these value analyses elsewhere (and resource planning generally). This is improper and undermines the Commission's authority to consider all aspects of DG resources, potentially leading to an inefficient result.

There have been many value of solar studies performed around the country. Two good resources are a review of cost-benefit studies published in 2013 by the Rocky Mountain Institute,[7] and the report published by the Brookings Institute noted in my earlier response testimony.[8] The former review in particular, steps through the many benefits that have been identified and proposes means for their determination. In this investigatory process, the Staff included a list of benefits in its initial comments in this docket. Staff provides some very brief comments about a number of these benefits, and these are a good start to compiling a comprehensive list of values to be evaluated.

The Benefits of Distributed Generation

Market Based Avoided Costs	Non-Market Based Avoided Costs
Avoided Energy Costs	Avoided Environmental Costs
Avoided Generation Capacity Costs	Avoided Renewable Costs
Avoided Ancillary & Capacity Reserve Services	Price Mitigation Benefits
Avoided Transmission Costs	Economic Development
Avoided Distribution Costs	Health Benefits
	Grid Security

[7] https://d231jw5ce53gcq.cloudfront.net/wp-content/uploads/2017/04/eLab_DERBenefitCostDeck_Report_2013-1.pdf

[8] Muro, M and Saha, S, "Rooftop solar: Net metering is a net benefit," Brookings Institute, May, 2016.

In addition, the NARUC DER Manual addresses the benefits and costs of DER in the Value of Resource section.[9] Its list is similar to the Staff's list:

1. Avoided energy/fuel
2. Energy losses/line losses
3. Avoided capacity
4. Ancillary services (may include voltage or reactive power support)
5. Transmission and distribution capacity (and lifespan changes)
6. Avoided criteria pollutants
7. Avoided CO2 emission cost
8. Fuel hedging
9. Utility integration and interconnection costs
10. Utility administrations
11. Other environmental factors
12. Reliability factors and costs

The restrictions in the NUS are in conflict with best practices in other states as well as with studies that have been performed by independent entities, generally state-based agencies. The NUS provides no rationale for such significant restrictions. This request should be rejected and a full value of resource study should be performed prior to any review of rate design options and should thus inform any changes in rate structure, particularly those that single out the very few DG customers in Kansas.

Q. Please discuss the finding requested in NUS Paragraph 15.

A. Paragraph 15 seeks a finding that DG rate design policy is best determined in this docket. With this much CEP agrees, however as previously discussed there has been insufficient data available in this proceeding to determine the necessity of making any changes to present DG rate design policy, i.e. no separate class and no different rate design. The requested finding goes on to say that determination of DG rate design policy in this docket provides certainty to all parties for the benefit of the orderly development of the DG market in Kansas. However this docket has not determined "present DG rate design

[9] NARUC DER Manual, 2016, p. 133-134.

policy" but only seeks a finding that DG customers are *significantly different* and should be in a separate class. As a result, there is more uncertainty than ever.

Finally, Paragraph 15 suggests that electric utilities without current DG tariffs have the option to propose such tariffs "consistent with the principles established in this general investigation." The referenced principles are not supported by evidence and in some cases may undermine Commission authority.

CEP believes this docket should remain open, and the actual data available be reviewed and analyzed, so that legitimate findings can be made.

Q. Please discuss the finding requested in NUS Paragraph 16.

A. Paragraph 16 essentially requires grandfathering of all existing DG customers on current rates (with the exception of Westar) until on or after the effective date of a new rate design, and to be allowed to remain on those rates until January 1, 2030. CEP supports the concept of grandfathering but would prefer a specific period of time, e.g. 20 years from date of install, as the grandfathering period. If a utility doesn't change their rate design until 2025 for example, DG customers would only remain on the existing rate for five years, which is unlikely to be sufficient time to recover the costs of their investment. The exception in the NUS is Westar. Because a new rate class was established in the last rate case, the NUS allows Westar to establish a cutoff date of October 28, 2015. The NUS states "customers who added DG on or after October 28, 2015, will be subject to the rate design change that occurs in future rate case dockets based on the policy established in this docket."

Thus, under the NUS all utilities will be allowed to implement a different rate design as a result of the next rate case. The applicability of the new rate design is for prospective

installations only, with the exception of Westar for whom applicability begins with customer DG installations on or after October 28, 2015. Therefore the only current DG customers affected by the NUS are the 129 post-October 27, 2015 customers of Westar and any others that may have installed DG since November 18 of 2016. It is clear however that the NUS does not prescribe any new rate design.

Q. Please discuss the finding requested in NUS Paragraph 17.

A. Paragraph 17 effectively makes the applicability of the NUS to cooperatives advisory and not mandatory. I believe this reflects current law and regulatory practice.

Q. Do you have any other comments?

A. Yes. The NUS uses the term "private" generation throughout the document. This term is non-descriptive and confuses the meaning and ownership of DG resources. Indeed, it is a term the Edison Electric Institute (EEI) has been promoting as part of its new lexicon since 2014, and is a simple substitute for the more descriptive "rooftop." I urge the Commission to reject the use of this term throughout the NUS as it reduces rather than enhances clarity. It can be simply stricken, or be replaced with *rooftop*, without any impact on the underlying language of the document.

CEP'S SUMMARY OF CONCERNS AND RECOMMENDATIONS

Q. Please summarize your recommendations re the NUS.

A. The Settling Parties ask the commission to approve certain findings as drafted in the NUS that are unsupported by facts, may undermine Commission authority or limit the rights of other parties, or are simply unnecessary. CEP summarizes its concerns and recommendations as follows:

(1) The significant difference in usage characteristics described in Paragraph 9 (and the related findings in Paragraphs 10 and 11) has not been demonstrated and must be rejected;

(2) The customer education requirement in paragraph 12 is good policy any time any customer class's rate design changes, but can be established without this NUS;

(3) Paragraph 13 establishes limits to the due process rights of stakeholders and should be denied;

(4) Paragraphs 14 undermines Commission authority and must also be rejected;

(5) Paragraph 15 seeks to effectively close this docket through the NUS, which is improper since there has been no evidentiary support for the basic findings sought by the settling parties. This investigatory docket should remain open to continue evaluating the concerns of utilities, the Commission, other customers and stakeholders through data-driven analysis and additional study if necessary;

(6) Paragraph 16 essentially established grandfathering for all current DG customers until a rate design change is made, except for Westar customers whose grandfathering period ended October 27, 2015. CEP opposes the hard date of January 1, 2030 and propose a 20 year grandfathering period from the time a rate design change is made; and

(7) Paragraph 17 reflects current law and policy and is not necessary to include.

Q. What are your recommendations to this Commission?

A. Based on the foregoing, I recommend the Commission reject the Non-unanimous Settlement, keep this investigatory docket open, and study and analyze the actual data available, which may include further studies. Only then can legitimate findings be made.

Q. Does this conclude your testimony?

A. Yes, it does.

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Appendix A

Professional Employment

January 2012 to Present: Program Director, DG Regulatory Policy, Vote Solar. Manage technical and policy research for Vote Solar, and engage in state, regional, and national campaigns related to distributed solar generation. Expert witness in many formal state regulatory proceedings addressing issues related to distributed solar resources.

March-April 2012: Solar Energy Industries Association - Under a short term contract with SEIA to participate in an Xcel Energy distributed solar generation Technical Review Committee and to manage consulting support also under contract to SEIA.

January 2007 to January 2012: SunEdison, LLC - Various solar policy related positions beginning with Director of Interior West Policy to Managing Director of Western Policy (July 2007), to Vice President of North American Government Affairs (July 2009) to Global Policy Advisor (July 2011). In each of these roles, directed and managed policy research, development and implementation for the company for the various geographies identified at the regulatory and legislative levels.

June 2011 to December 2011: Chair of the Solar Alliance Board.

Dec 1994 to Jan 2007: Senior Energy Policy Advisor, Western Resource Advocates (formerly the Land and Water Fund of the Rockies), Boulder, Colorado. Develop innovative clean energy and air quality public policies within the economic and cultural framework unique to this region. Lead environmental advocate in development of Arizona Environmental Portfolio Standard, Nevada Renewable Portfolio Standard implementation rules, Colorado Renewable Energy Standard legislative proposals, and the 2003 Utah Renewable Energy Standard legislative proposal. Principal author of Colorado's Amendment 37 and lead advocate for related PUC rule development.

Jan 1983 to Dec 1994: Director of Revenue Requirements, Public Service Company of Colorado, Denver, Colorado. Primary responsibility for development of formal rate-related filings for this investor-owned utility for electric, gas, and thermal energy service in two states and the FERC. Developed and responded to a variety of proposed mechanisms to encourage the use of energy efficiency technologies, including innovative rate design approaches.

Dec 1976 to Dec 1982: Technical Witness (Engineer), Federal Energy Regulatory Commission, Washington, D.C. Testified as expert witness on behalf of the FERC in wholesale rate filings on technical, accounting, and economic issues related to rate design, pricing, and other issues.

Education

Masters, Environmental Policy and Management, University of Denver, Denver, Colorado

Bachelor of Science, Electrical Engineering, Rensselaer Polytechnic Institute, Troy, New York

Summary of Formal Testimonies and Rulemaking Participation

Representing Vote Solar

- Pacificorp/RMP Docket No. 14-035-114: Costs and Benefits of Net Energy Metering
- Public Service Company of CO Docket 16A-0546E: Decoupling
- Sierra-Pacific Power Company Docket 16-06006, et al: GRC Phase 2
- Sierra-Pacific Power Company Docket 16-07001, et al: IRP
- Public Service Company of CO Docket 16AL-0048E, et al: Three docket settlement
- Public Service Company of CO Docket 16AL-0048E: GRC Phase2
- Public Service Company of CO Docket 16A-0055E: Solar*Connect 2 Subscription Proposal
- Nevada Energy Docket No. 15-07041, et al.: Cost of Service Study and Net Metering Tariffs
- El Paso Electric Company Case No. 15-00127-UT: General Rate Case
- Public Service Company of CO Docket 13AL-0958E: Qualifying Facilities Rates/Remand
- Public Service Company of CO Docket 14A-0302E: Solar*Connect Subscription Proposal
- We Energies (WI) Docket No. 05-UR-107, General Rate Case
- Rocky Mountain Power (UT) Docket No. 13-035-184: General Rate Case
- Public Service Company of CO Docket 13AL-0958E: Qualifying Facilities (QF) Rates
- Public Service Company of CO Docket 13A-0836E: 2014 RES Compliance Plan
- Public Service Company of CO Docket 13AL-0695E: Line Extension Policy
- Idaho Power Company, Case No. IPC-E-12-27, Net Metering Service
- Arizona Public Service, et al., Docket No. E-01345A-10-0394, et al., RES Compliance
- New Mexico PRC Case No. 11-00218-UT: Renewable Portfolio Standard Reasonable Cost Threshold
- Tucson Electric Power Docket No. E-01933A-12-0291: General Rate Case

Representing Sunedison LLC

- Public Service Co of New Mexico Case No. 10-00037-UT 2010 Procurement Plan
- Public Service Company of CO Docket 09A-772E: 2010 Compliance Plan
- Public Service Company of CO Docket 09AL-299E: 2009 Rate Case Phase 2
- Public Service Company of CO Docket 08A-532E: 2009 Compliance Plan
- Colorado PUC Rulemaking Docket 08R-424E: Renewable Energy Standard Rules
- New Mexico PRC Case No. 08-00084-UT: Reasonable Cost Threshold Rulemaking
- Nevada PUC Docket No. 07-10007: Petition for Declaratory Order re 3rd party ownership
- Public Service Company of CO Docket 07A-447E: 2007 Resource Plan
- Public Service Company of CO Docket 07A-462E: 2008 Compliance Plan
- New Mexico PRC Case No. 07-00157-UT: RPS Rulemaking; diversity standard
- Public Service Company of CO Docket 06A-478E: 2007 Compliance Plan
- Public Service Company of CO Docket 06A-534E: Approval of Alamosa Contract

Representing large commercial customers

- Nevada Power Company Docket No. 02-11037: Electric Tariff Rule related to loss factor associated with metering secondary service at primary level
- Nevada Power Company Docket No. 02-5044: Electric Tariff Rule related to metering

Representing Western Resource Advocates (formerly the Land and Water Fund of the Rockies)

- CO: PSCo Docket 06S-234EG: 2006 Rate Proceeding - Windsource issue
- CO: PSCo Docket 05A-112E: Renewable Energy Standard Rulemaking
- CO: PSCo Docket 05A-288E: Electric Quality of Service Monitoring & Reporting Plan: 2007-08
- CO: PSCo Dockets 06S-016E: Renewable Energy Service Adjustment
- CO: PSCo Consolidated Dockets 04A-214E, 215, 216E: Least-cost Resource Plan
- CO: PSCo Docket No. 04S-164E: Windsource Program & Net Metering in GRC Phase 2
- CO: PSCo Docket 02S-315EG: 2002 Rate Proceeding - Windsource issue
- NV: Nevada Power Company Docket No. 01-7016: Demand-side Management Programs
- UT: PacifiCorp Rate Case Docket No. 01-035-10: Demand-side Mgt Cost Recovery
- CO: PSCo Docket No. 00A-008E: IRP - DSM & Wind Resources
- UT: PacifiCorp Rate Case Docket No. 99-035-10: System Benefit Charge Proposal
- AZ: Arizona Restructuring Rulemaking Docket No. 99-205: Renewable Portfolio Standard
- CO: PSCo Docket No. 98A-511E: Air Quality Improvement Rider
- AZ: Arizona Restructuring Rulemaking Docket No. 94-165: Stranded Cost Proceeding
- NV: Nevada Power Company Docket No. 94-7001 (Refiled): Integrated Resource Plan
- NM: Southwestern Public Service Case No. 2678: Merger Proceeding
- CO: PSCo Docket No. 95A-531EG: Merger Proceeding

Representing Public Service Company of Colorado

- PSCo Rate Revenue Requirements Proceeding Docket No. 93S-001EG
- PSCo Demand-side Management & Decoupling Proceeding Docket No. 91A-480EG
- PSCo Incentive Regulation Investigation Docket No. 93I-199EG
- PSCo Rate Proceeding Docket No. 91S-091EG
- PSCo Fort St. Vrain Supplemental Settlement Agreement Docket No. 91A-281E
- Various PSCo FERC rate proceedings, and subsidiary rate proceedings

Representing the Staff of the Federal Energy Regulatory Commission

- Connecticut Light & Power Company, Docket ER 82-301
- Kentucky Utilities Company, Docket ER 81-341
- Philadelphia Electric Company, Docket ER 80-557, et al.
- Minnesota Power & Light Company, Docket ER 80-5
- Boston Edison Company, Docket ER 79-216, et al.
- Connecticut Light & Power Company, Docket ER 78-517
- South Carolina Electric & Gas Company, Docket ER 78-283
- Minnesota Power & Light Company, Docket ER 78-245
- New England Power Company, Docket ER 78-78
- New England Power Company, Docket ER 77-97

BEFORE THE KANSAS CORPORATION COMMISSION
OF THE STATE OF KANSAS

In the Matter of the General Investigation to Examine Issues Surrounding Rate Design for Distributed Generation Customers	))))	Docket No. 16-GIME-403-GIE

VERIFICATION

STATE OF COLORADO

ss:

COUNTY OF BROOMFIELD

Rick Gilliam, of lawful age, being first duly sworn upon oath, deposes and states: That he is a witness for Climate + Energy Project, that he is responsible above and foregoing testimony and that the statements therein contained are true and correct according to his knowledge, information and belief.

Rick Gilliam

Subscribed and sworn to before me this 19th day of June, 2017.

My appointment expires: 03/29/2021

Notary Public

MICHAEL SANCHEZ
NOTARY PUBLIC
STATE OF COLORADO
NOTARY ID 20174013705
MY COMMISSION EXPIRES 03/29/2021

VERIFICATION

STATE OF KANSAS)
) ss:
COUNTY OF DOUGLAS)

Robert V. Eye, of lawful age, being first duly sworn upon oath, deposes and states: That he is an attorney for Climate + Energy Project, that he has read the above and foregoing and that the statements therein contained are true and correct according to his knowledge, information and belief.

R Eye
Robert V. Eye

Subscribed and sworn to before me this 20th day of June, 2017.

Emily Schneider
Notary Public

My appointment expires:

EMILY SCHNEIDER
NOTARY PUBLIC
STATE OF KANSAS
MY COMMISSION EXPIRES 08.14.19

CERTIFICATE OF SERVICE

Undersigned certifies that on June 20, 2017, the above and foregoing Testimony of Rick Gilliam was emailed to the following:

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