Distributed Energy Resources Initial Draft Report,
November 2013 by the EAC
of Public Utilities Review Committee

Comments, revisions, questions
by Pamela Greenlaw,
rater payer and consumer

At the Outset

I wish to thank the EAC for an excellent product for South Carolina's Quest to make its electric
systems resilient and competitive for the future. This draft report is a clear, transparent, user-friendly
document that will prove essential to achieving the quest.

I have the following requests before I make known my comments and revision ideas.

1. Please establish a system for accepting and answering questions about information and
   ideas in the report. There are some vagaries and omissions that should be addressed
   before the deadline of Dec 18 for final comments and revision suggestions. This may
   mean an extension of time on that deadline; however, that may not be possible at this
   point in the process.

2. Please publish the suggestions and revisions sent in to the EAC for public view.

My Comments and Revision Suggestions:

1. Include the following terms and definitions in the Appendix:
   a. ancillary services
   b. demand charge(s)
   c. islanding (see p. 7, fig.2)
   d. peak billing demand (used p. 15, Fig 9, under Electric Coops column, entry on
      stand-by charges
   e. cost shifting (make clear that the term is the synonym for the non-technical and
      misused term “cross subsidization”)
   f. *cross subsidization* (please explain this term, as it is commonly employed to
      mean only non-DG customers supporting DG customers, which is not the entire
      case. If the EAC is avoiding the use of this term, this is the place to say why.)
   g. *Socialized cost *(is this also a term for cost-shifting, or is it part of benefits-
      cost analysis?)

2. This report must include a section “Recommendations” in the table of contents and in
   the body that lists overtly process solutions to move DG forward in South Carolina. The
   legitimate concerns of the utilities would of course be included. To omit such a section
   leaves the readers and policy-makers to cherry-pick ideas from the report and still miss
   the PROVEN techniques and procedures that have brought success in other states and
countries and would be the foundation for success in South Carolina, however these are
adjusted to meet South Carolina's specific circumstances. See EAC report's embedded
recommendations that should be in such an overt section later in my comments.

3. On p. 6, Table 1 the list of potential benefits includes avoided generation. If this is only of dispatchable power, perhaps it should be so stated. List of potential benefits include job creation; however, that term should be replaced by a term for the category into which job creation falls: rather than “job creation” substitute “economic growth.” the term economic growth is inclusive of job creation but also includes secondary positive & localized ramifications.

4. On p. 6, Table 1 also include as a benefit or as benefits “grid resilience & flexibility” and/or even “nimbleness of power generation response.” Benefits to the utilities should be in this list of benefits.

5. On p. 7 of Benefit-Cost Analysis, the 3rd bullet

6. On p. 9 on IOU’s the EAC construct of the sentence is very telling of who the true drivers of energy policy are in South Carolina which the report ultimately debunks. Under the heading of “Investor-Owned Utilities” is the third sentence “The Directors of these corporations have a duty to govern the organization in accordance with shareholders' interests while simultaneously balancing the needs of other stakeholders such as regulators, customers, employees, and the communities they serve.” Regulators should not be considered stakeholders. The only needs of regulators from the IOU’s are complete and forthright sharing of data and cooperation. The regulators should not be listed as stakeholders even though the corporations should consider the needs of regulators. Though the EAC may not have intended, the construction of this sentence indicates that the utilities have indeed been and consider themselves as the drivers of policy rather than the legislature being the driver. Adjust the language of this sentence to reflect that the General Assembly, Public Service Commission, and other regulators are in charge of balancing needs to bring about the best result for the general welfare of South Carolinians.

7. On page 12, paragraph 3 is the misnomer of “natural monopoly,” a term invented not only for efficiency but also for control of money-flow by Thomas A. Edison. His inventions, know-how, and power brought about a base-load rather than a distributed system.

8. On pg. 12 under “Ratemaking Principles in the Sole-Provider Model” in the last sentence about trade-offs is the concept of “accurate pricing signals .. [dismissed –my term] in favor of practicality.” This sentence is an accurate description as the why the concept of cross-subsidization, or cost shifting, is a consistent and necessary practice of the utilities over several scenarios, including but not limited to distance of customers from the base load plant, time-of-day consumption variability of customers, energy efficiency measures by some and not all customers, and on-site energy generators. A special notation next to the definitions in Appendix A should be placed next to cost-shifting, cross-subsidization, and references to descriptions such as the trade-off sentence on p 12.

9. On p 15 in Fig 9 there should be no empty spaces. The utilities must be forthcoming of their information. Answers should be researchable and clear. In other words, from where are the utilities gleaning their answers? If there is no answer, why not? Of primary importance are answers to presentation of data on extra charges, be they riders, stand-by charges, demand charges, basic facility rates, and additional charges. If answers to these
questions in Figure 9 table are embedded in NEM rates, on customer documents such as application forms and contracts, in interconnection information, etc. each utility must extract that information and provide it. The EAC has a reason for the construction of and use for that table. One of the primary reasons for this table should be to examine the level of uniformity across all utility NEM systems to the extent possible. This would be a key to improvements in the regulatory framework. (See Net Metering Report by the ORS and the SC Energy Office). The lack of uniformity across the State's electric systems concerning NEM and interconnection resulting from lack of state-wide policy is the primary reason South Carolina consistently has received failing grades over a 7-year period of “Freeing the Grid.”

10. Continuing on P15's Fig 9, the does the EAC intend in the construction of the questions implies an intent to document dollar amounts or methods of calculation? Or both? This lack of clarity in the final question may be the reason no real data is available from the utilities, including the coops, who provided an answer of sorts which is not useful is the intent of the table is to create comparisons. Information not included is information withheld. If a utility does not exact a charge listed on the chart in Fig 9, it must state so overtly under the appropriate heading.

11. On pg 22 no changes are needed. Thank you for including components of financially successful solar installations, particularly the phrase “competitive financing.” Keep this.

12. On pg. 23 eliminate the 4th sentence that begins in the middle of line 7 and ends on line 10, section b. This situation existed in the old days but does no longer. Technology and requirements of interconnection have eliminated this.

13. On pg 23, lines 5-7 in section b) seems to ignore science—that electricity can flow in either direction on a line. Again there are technological constructions and systems that control this flow. Perhaps these lines of text should be revised or eliminated.

14. On pp. 27 & 36 the sentence “Energy storage, if ever developed to be economically valuable, will be a key technology bridging efficient utility operation with the integration of renewable energy.” Eliminate the qualifier phrase “if ever developed...” Rewrite the sentence on both pages thusly: “Small and large scale energy storage, when developed to accommodate large-and wide-scale usage, will be key technology bridging efficient utility operation with the integration of renewable energy.” The “if” phrase is nonsensical as well as unnecessarily negative.

15. On pg 28 “Generation Portfolio Diversity. Skimmed over and virtually ignored by the PSC, The General Assembly must take on diversity of fuel resources and direct the PSC to do likewise.

16. Pg 28 , Last sentence of this paragraph.”In addition, while all fuel resources … some environmentla impact ...” need to be revised. Delete the word “some” and replace with “varying types and degrees of negative” environmental impact. Also, replace the word “balanced” which has no technical or legal meaning to the phrase “Adjusted downward.”

17. On page 33 nuclear power is included in the discussion of dispatchable power. Nuclear is not dispatchable and should be dealt with elsewhere in the document.

18. On p31, under the “Second Step” the statement is made that costs for distributed solar in SC may have reached retail parity rate in some jurisdictions.” Eliminate the wor “MAY” and state that this retail parity rate parity has been met on some jurisdictions or at least one jurisdiction (SCE&G's, as a matter of fact.)

19. EAC should visit the FERC's new Nov 25, 2013 updated interconnection for solar projects report. They have proposed a rule for solar projects that meet particular technical requirements. This rule enables projects to be fast-tracked while ensuring
maintenance of electric system safety and reliability. This will lead to perhaps an
elimination of the laundry-list of utility worries, some of which are legitimate and some of
which are really red herrings.

20. OK finally, this report should not end with lists of the utilities' worries, as this will leave
the impression that the EAC is not intent on active seeking of solutions to enable 3\textsuperscript{rd}
Party Solar Leasing and other ideas for promoting the rapid deployment of DG from
renewables in SC. Therefore, the Crossing the Bridge Section should be followed by a
page of EAC RECOMMENDATIONS for moving DG forward to strengthen and
promote economic growth, just as the Net Metering report by the ORS and EO included
recommendations. Suggestions here on Recommendations are taken from the body of the
Report. First, the State of South Carolina, not any particular category of
stakeholder(s) must establish renewable energy goals, targets, deadlines. Second, the
State, not the utilities, must ensure all stakeholders are included in the development of
goals and are continuously part of the processes of developing DG policies and
practices to meet the goals and targets. Third, Energy efficiency standards have been
critically important to successful DG in other states and countries, so EE should be
examined and also have goals and targets. (See North Carolina's report measuring
success and progress from 2007-2012.)

Remember the EAC report must be overt and positive, careful, accurate but not promoting unnecessary
foot-dragging.

Thank you for your time and attention.

Pamela Greenlaw