

EANDY WATTS

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BEFORE

THE PUBLIC SERVICE COMMISSION OF  
SOUTH CAROLINA

DOCKET NO. 87-223-E - ORDER NO. 91-1002

NOVEMBER 6, 1991

IN RE: Least-Cost Planning Procedures	)	ORDER GRANTING
for Electric Utilities Under the	)	CLARIFICATION
Jurisdiction of the Public Service	)	AND MODIFICATION
Commission of South Carolina.	)	

This matter comes before the Public Service Commission of South Carolina (the Commission) by way of a Request for Clarification and Modification of Order No. 91-885, issued in the instant Docket filed on behalf of the Consumer Advocate. In its request, the Consumer Advocate seeks clarification and modification of the Order regarding the use of the word "guideline" or "guidelines" used in Order No. 91-885. According to the Consumer Advocate's request, the understanding of the parties was that the negotiated agreement was undertaken to arrive at procedures that would be incorporated in the Order and which were attached as Appendix A to Order No. 91-885. The use of the word "guidelines" would tend to confuse future proceedings and therefore, the Consumer Advocate asks that language indicating that the Order is intended more for "procedures." The Commission has considered the request of the Consumer Advocate and finds that it is correct in that the use of the word "guideline" or "guidelines" could be

misinterpreted. Therefore, the Commission will substitute the word "procedures" as appropriate. In that regard, the Commission hereby substitutes this Order for Order No. 91-885. Additionally, the title of Appendix A referred to the Commission Staff. The Consumer Advocate recommended that this phrase be deleted as of the Commission's formal vote of approval of these procedures. The Commission agrees that this is now the proposal of the Commission and that the words, "Commission Staff" should be deleted from the title of Appendix A. Order No. 91-885 should read as follows:

This matter comes before the Public Service Commission of South Carolina (the Commission) by way of a filing by the Commission Staff. The submission by the Staff consists of a proposed integrated resource planning process that has been negotiated between the Commission Staff, the Consumer Advocate, Carolina Power & Light Company (CP&L), Duke Power Company (Duke), Nucor Steel, a Division of Nucor Corporation (Nucor), and South Carolina Electric & Gas Company (SCE&G). The proposal is attached hereto as Appendix A and incorporated by reference herein. The participating parties met over a period of time, both separately and together in a collaborative process to negotiate the terms of an integrated resource planning process (IRP). The filing with the Commission is a result of the collaborative process and represents a consensus of all parties, with one exception.

Particularly, Nucor filed a proposed revision to Section A(1)(f) of the proposed IRP process. The participating parties had unsuccessfully attempted to resolve this issue during the

collaborative process. The result was that the original language proposed by the Commission Staff remained in the IRP plan.

Presently, Section A(1)(f) reads as follows:

At the conclusion of the IRP review, the Commission will determine whether the IRP filed by each utility is reasonable at that point in time. Such a determination by the Commission does not constitute avoidance of any prudence review, siting approvals, etc., deemed necessary by law or by Commission decision and/or order.

Nucor proposes that the above referenced language be modified as follows:

At the conclusion of the IRP review, the Commission will determine whether the IRP filed by each utility is reasonable at that point in time. Such a determination by the Commission does not relieve the utility of its sole responsibility for planning, constructing and operating its own system; nor does it constitute avoidance of any prudence review, siting approvals, etc., deemed necessary by law or by Commission decision and/or order.

Parties that do not specifically present evidence related to, support, or challenge at the hearing, an aspect of the IRP or an issue raised or proposal made in an IRP proceeding do not waive any rights to litigate the matter in the future and shall not be precluded or estopped from fully addressing that issue in a future proceeding (including other IRP, certification, rate and/or prudence proceedings). Nor shall any party be precluded from offering newly-discovered evidence in a future proceeding on any issue previously considered in an IRP proceeding.

The Commission has considered the proposal of Nucor and finds that the language as presently stated in the plan adequately addresses the concerns of Nucor. The Commission does not intend to supplant through the IRP process, any other review procedure established by law, Commission regulation or Commission Order. The approval of an IRP process does not alleviate the necessity of any

siting approvals, prudency reviews, or cost recovery proposals among other things, that are presently required.

The Commission is concerned that Nucor's proposed language goes farther than is necessary to protect the interests of any party or entity that may or may not participate in any of the related proceedings before the Commission. Particularly, the Commission is concerned that Nucor's suggestion relating to a party's rights to litigate a matter in the future, its statement concerning a party not being precluded or estopped from fully addressing an issue in a future proceeding, and Nucor's language concerning newly discovered evidence, may go further than the law may allow, depending on the particular facts of a situation. However, the Commission's practice, policy and adherence to the law in the South Carolina will not change because of the IRP filings. The Commission's policy and practice has been that parties participating in one proceeding are not precluded from raising other or related issues in another proceeding as long as those issues are relevant to the matters before the Commission. The Commission's treatment of these matters has been in concert with the law in South Carolina. A party's lack of participation in an IRP filing, for example, would not preclude that party from participating and raising any relevant issues in a future siting proceeding or rate case. The law relating to any applicable estoppel issues or newly-discovered evidence issues will be appropriately applied.

The proposal of Nucor was the only objection to the

collaborative agreement filed by any participating party in the negotiation process. As to all other provisions of the IRP process, all parties agreed to the plan as finalized on August 28, 1991. The Commission hereby adopts the IRP as submitted as shown in Appendix A.

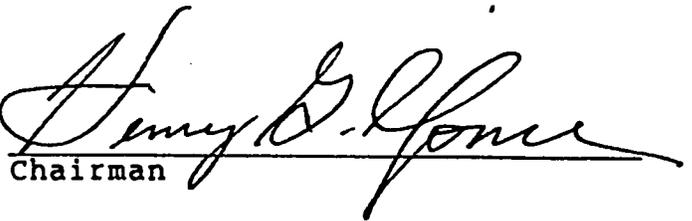
The IRP planning process submitted to the Commission sets forth a procedure to be followed by CP&L, Duke and SCE&G in developing and filing integrated resource plans in the future. The Commission will review the IRP's filed by each utility to evaluate the extent of compliance by each utility with the procedures set forth within the IRP process for the specific purpose of determining whether the plan is reasonable at that point in time. The Commission does not intend to dictate to utility management the specific demand-side options or supply-side resources which should be adopted as part of the IRP. However, the Commission will review and determine whether the options selected and incorporated within the utility's IRP are in compliance with the procedures set forth in this Order and whether such chosen options have been justified by the utility within its IRP filing. In addition, the Commission will determine whether the costs, incurred over time, resulting from implementing each chosen option are reasonable. The appropriateness of the implementation process for any option may be evaluated by the Commission. Cost recovery plans may be filed by the utilities for the Commission's consideration, review and approval. Interested parties may file comments to any cost recovery plans submitted by a utility company.

Therefore, as a result of the agreement between the participating parties, as well as the Commission's determination as to Nucor's proposed change, the Commission finds that the IRP process filed with the Commission by the Commission Staff should be approved for the South Carolina jurisdictional utility companies, Carolina Power & Light Company, Duke Power Company, and South Carolina Electric & Gas Company. As the plan notes, the first detailed plan is to be filed by April 30, 1992. Each subsequent IRP or STAP will be filed by April 30th of each succeeding year or the nearest working day to that date.

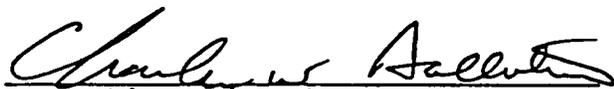
IT IS SO ORDERED.

BY ORDER OF THE COMMISSION:

VICE

  
Chairman

ATTEST:

  
Executive Director

(SEAL)

WJSDS  
SHA, IPE

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APPENDIX A  
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DOCKET NO. 87-223-E  
INTEGRATED RESOURCE PLANNING PROCESS  
SOUTH CAROLINA PUBLIC SERVICE COMMISSION  
\*AUGUST 28, 1991

IRP OBJECTIVE:

The objective of the IRP process is the development of a plan that results in the minimization of the long run total costs of the utility's overall system and produces the least cost to the consumer consistent with the availability of an adequate and reliable supply of electricity while maintaining system flexibility and considering environmental impacts. In conjunction with the overall objective, the IRP should contribute toward the outcomes of improved customer service, additional customer options, and improved efficiencies of energy utilization.

A. IRP FILING AND REPORTING PROCEDURES

1. The utilities must file a detailed 15 year IRP every three years. Staggered filing dates for the subsequent IRP:

February 28 ..... SCE&G  
April 30 ..... Duke Power  
June 30 ..... CP&L

- a. The IRP filing must comply with all procedural and substantive requirements set forth herein and any additional requirements established by the Commission in future proceedings.
- b. Upon receipt of each utility's IRP filing, a separate docket will be established by the Commission for the IRP of each utility. At this time interested parties will be given an opportunity to intervene in the separate IRP dockets. Such parties will have 30 days to intervene from publication of the notice.

- c. Each utility will provide a copy of its IRP filing to each intervenor no later than 5 days after receiving the notice of intervention.
- d. An executive summary of the major aspects of the plan should be filed by the utility at the time it files the IRP. This summary must include the following:
  - 1. An overview of the plan.
  - 2. The objectives of the IRP and how the plan intends to achieve the objectives
  - 3. The specific resource options chosen and how they are consistent with the objectives of the IRP.
  - 4. An overview of the environmental impacts of the plan.
  - 5. A summary risk assessment of the plan.
- e. Approximately 10 days after the close of intervention, a conference will be held between each company and the parties of record in that docket. All participating parties will identify their issues and serve the issues on the utility five (5) days prior to the conference. The purpose of the conference will be to go over the procedural aspects of the proceeding, including discovery, in addition to an examination of issues. The utility shall make available, at such conference, knowledgeable experts who can fully explain those issues raised by the parties of record. Other conferences can be held as necessary. In the event that any issues raised through the conference process are not resolved, the parties may request the Commission to set a hearing and/or establish other procedures to resolve specific problems. The hearing will focus on the specific issues of concern and/or the points of disagreement resulting within the conference process pertaining to the utility's compliance with the established IRP procedures. In addition, the hearing can address requests to modify the existing planning process. Each utility will be expected to defend its IRP filing regarding compliance with the procedures established under the IRP process at the conference and within any prescribed hearing that is required.
- f. At the conclusion of the IRP review the Commission will determine whether the IRP filed by each utility is reasonable at that point in time. Such a

determination by the Commission does not constitute avoidance of any prudence review, siting approvals, etc. deemed necessary by law or by Commission decision and/or order.

- g. The IRP process is dynamic and complex requiring various assumptions, forecasting techniques, and planning methodologies. The IRP process must recognize the limitations on resources available to the Commission and its Staff to evaluate the various IRP's. The Commission might wish to review alternatives in addition to those incorporated within the utility's IRP. The Commission can choose to specify reasonable alternatives not included within the IRP for the utility to develop and provide to the Commission. The exploration and evaluation of any such alternative is not to be a specific part of the IRP filed by the utility. The information could be used by the Commission to evaluate the utility's IRP. Parties of record and Staff may request the Commission to require the utilities to perform analyses or develop alternatives not included within the utilities filed IRP.
  - h. The separate dockets for each utility will be closed at the end of the three (3) years prior to the filing of the next IRP.
  - i. Each utility must file with the Commission any significant changes to the IRP within 30 days of the decision to change/amend. The filing will include the analysis of the modification on which the decision was based. When feasible, the utility should give reasonable advance notice to the Commission and the parties of record of any significant change it decides to make in the IRP.
  - j. Major changes, e.g. in laws, may necessitate modification of the timetable set forth for the filing and reporting procedures.
2. The utilities must file a short-term action plan (STAP) with the Commission in each of the intervening two years between the filing of the detailed 15 year plans. The first STAP is to be filed by April 30, 1993.

a. Each STAP shall incorporate:

1. Description of the implementation of the IRP.
2. Description of each resource option and program including its basic objective.
3. Criteria for measuring the progress of each option and program toward meeting the objective.
4. Implementation schedule for each program.
5. Review of the progress of each program.
6. Identification of specific problems that have arisen with the implementation of the plan and proposals for dealing with these problems.
7. Include within the STAP the actual benefits obtained for the DSM options along with the actual costs. The actual benefits can be defined as the avoided capacity and energy costs estimated through the formal evaluation of the DSM programs. If for some reason this information is not available for inclusion with the STAP, the data should be provided at the earliest possible date or the data which is available at the time of the STAP can be provided.

b. When filed, a copy of the short-term action plan will also be served by the utility on all parties to the original IRP docket which preceded the STAP. The filings will be reviewed to determine the progress of the utility toward achieving the objectives of the plan.

c. Reasonable discovery requests related to a significant change to the IRP or second STAP shall be permitted for forty-five (45) days after the filing of either document. Any party may request a prehearing conference, additional discovery and/or a hearing on any STAP or changes to the IRP for good cause shown.

**B. REQUIREMENTS FOR THE DEVELOPMENT AND COMPOSITION OF THE IRP FILING.**

1. The IRP filing must contain a statement of both long-term and short-term objectives of the utility and how these objectives address the overall objective of the IRP process as stated by the Commission.
2. A copy of relevant supporting documentation necessary to explain and understand the IRP must be filed with it.

3. The IRP filing must indicate how the resource plans seek to ensure that each utility incorporates the lowest cost options for meeting the electricity needs of consumers, consistent with the availability of an adequate and reliable supply of electricity.
4. The IRP filing must seek to incorporate the customer as a part of the planning process through opening direct and indirect lines of communication; providing useful information to consumers for efficient energy choices; providing various energy alternatives; and through sending proper pricing signals.
  - a. As a part of this endeavor, each utility should identify existing programs that seek to encourage consumer participation in DSM options, including conservation.
  - b. The planning process should solicit consumer input as an integral part of the planning function.
5. In evaluating potential options for incorporation within the IRP, each utility must employ unbiased analysis techniques.
6. The IRP filing must evaluate the cost effectiveness of each supply-side and demand-side option in a manner that considers relevant costs and benefits. To ensure proper evaluation, the screening of DSM resources can be based on more than one test. No single test is always appropriate for all situations. Each option must be evaluated, using the appropriate test or tests, and the analysis should include all appropriate costs.
  - a. The utility must justify the use of a specific test or tests employed as part of the basis for adoption or rejection of a specific resource. No individual option that passes the TRC test shall be rejected solely on the basis of its failure of the RIM test, unless the utility demonstrates good cause for rejecting such option, consistent with subsection B(7) below.
  - b. If a chosen option is not the least cost, according to the appropriate test, the utility must provide a detailed explanation with supporting evidence for its choice.
  - c. Each utility must retain sufficient supporting data and test results for each option actually tested but not selected until the docket is closed. This information is subject to discovery.

- d. For chosen options, sufficient data supporting each test must be available for review until the docket is closed.
- e. For options that are chosen each utility must provide the following:
  - 1. Summary results of all tests utilized.
  - 2. Major assumptions used for the chosen option.
  - 3. Justification of the test or tests used as the basis for the option selection.
- 7. A measure of the net benefits resulting from the options chosen within the IRP must be provided by each utility. The utility shall propose an IRP which minimizes total resource costs to the extent feasible, giving due regard to other appropriate criteria such as system reliability, customer acceptance and rate impacts.
- 8. Environmental costs are to be considered on a monetized basis where sufficient data is available. Those environmental costs that cannot be monetized must be addressed on a qualitative basis within the planning process. Environmental costs are to be considered within the IRP to the extent that they impact the utility's specific system costs such as meeting existing regulatory standards and such standards as can be reasonably anticipated to occur. The term "reasonably anticipated to occur" refers to standards that are in the process of being developed and are known to be forthcoming but are not finalized at the time of analysis. This does not mean that the utility is prohibited from incorporating factors which go beyond the above definition. Should the utility feel that other factors (environmental or other) are important and need to be incorporated within the planning process, it needs to justify within the IRP the basis for inclusion.
  - a. Environmental costs should be monetized and included within the planning process whenever possible. To the extent that environmental costs cannot be monetized the utility must consider them on a qualitative basis in developing the plan. The same guideline applies to relevant utility and customer costs.

- b. Each utility must provide the general environmental standards applicable to each supply-side option and explain the impact of each supply-side option on compliance with the standards. To the extent feasible each utility should seek to identify on a quantitative basis the impact of demand-side options on the environment (i.e. reduced pollutant emissions, reduced waste disposal, increased noise pollution, etc.) Such impacts can be reflected on a qualitative basis when quantitative information is not available.
  - c. Each utility should identify and monetize, to the extent possible, the cost of compliance for existing and projected supply-side options.
9. Each utility must provide a demand forecast (to include both summer and winter peak demand) and an energy forecast. Forecasting requirements for the IRP filing:
- a. Forecast must incorporate explicit treatment of demand-side resources.
  - b. Forecasting methodologies should seek to incorporate "end-use" modeling techniques where they are appropriate. End-use and econometric modeling techniques can be combined where appropriate to seek accuracy while being able to address the impacts of demand-side options.
  - c. The IRP filing must incorporate energy and peak demand forecasts that include an explanation of the forecasting methodology and modeling procedures.
  - d. The IRP filing must incorporate summary statistics for major models; assumptions followed within the forecasting process; projected energy usage by customer class; load factors by customer class; and total system sales. The utility must file this information, either as part of the IRP or as supplemental material to the IRP.
  - e. An analysis must be performed to assess forecast uncertainty. This can consist of a high, most likely, low scenario analysis.
  - f. The utility should periodically test its forecasting methodology for historical accuracy.

- g. The utility must identify significant changes in forecasting methodology.
- 10. The IRP filing must include a discussion of the risk associated with the plan (risk assessment). Where feasible the impacts of potential deviations from the plan should be identified.
  - 11. The transmission improvements and/or additions necessary to support the IRP will also be provided within the plan. This includes listing the transmission lines and other associated facilities (125 kv or more) which are under construction or proposed, including the capacity and voltage levels, locations, and schedules for completion and operation.
    - a. Any option rejected because of inadequate transmission or distribution facilities must be identified.
    - b. Each utility must identify the remedy and the costs that would be incurred to alleviate the transmission/distribution inadequacy.
    - c. Any party to the proceeding may specifically request from the utility and the utility will provide documentation of coordination between utilities on transmission and generation resource planning. This information shall, at a minimum, include EIA-714 or its equivalent, and the following:
      - 1. VACAR reliability agreements.
      - 2. Interconnection/Interchange agreements between CP&L, Duke, SCE&G and other utilities.
      - 3. VACAR coordinated Bulk Power Supply Program Report.
    - d. The utility shall not be required to maintain documentation, and/or report the results of transmission planning studies performed under resource plans other than the IRP, unless inadequate transmission facilities was a significant reason for rejecting the resource plan.

12. The plan must incorporate an evaluation and review of the existing demand-side options utilized by the utility. It should identify any changes in objectives and specifically identify and quantify achievements within each specific program. The plan should include a description of each program; program objectives; implementation schedule; and program achievements to date. An explanation must be provided outlining the approaches used to measure program achievements and benefits.
13. The IRP filing must identify and discuss any significant studies being conducted by the company on future demand-side and/or supply-side options.
14. The IRP must be flexible enough to allow for the unknowns and uncertainties that confront the plan. The IRP must have the ability to quickly adapt to changes in a manner consistent with minimizing costs while maintaining reliability.
15. The utilities must incorporate as part of their IRP's a maintenance and refurbishment program of existing units when economically viable and consistent with system reliability and planning flexibility.
16. Utilities must adequately consider all cost effective third-party power purchases including firm, unit, etc., consistent with the IRP objective statement. This involves consideration of both interconnected and non-interconnected third-party purchases. The utility will describe any consideration of joint planning with other utilities. The utility will identify all third party power purchase agreements.
17. The IRP filing must identify any major problems the utility anticipates that have the potential to impact the success of the plan and the planning process. Strategies which might be invoked to deal with each problem should be identified whenever possible.
18. Each utility must demonstrate that the IRP incorporates not only efficient and cost effective generation resources but also that transmission and distribution system costs are consistent with the minimization of total system costs. Any supporting information can be filed as a supplement to the IRP.

19. Each utility must explain and/or describe any new technologies included in the IRP.
20. Each future supply-side option incorporated within the IRP must be identified. The fuel source; anticipated generating capacity; anticipated date of initial construction; anticipated date of commercial operation; etc. must be provided for each option. The utility shall identify the anticipated location of any future supply-side option when it is consistent with the utility's proprietary interests.
21. The IRP must demonstrate that each utility is pursuing those resource options available for less than the avoided costs of new supply-side alternatives. Demand-side options will be included in the IRP to the extent they are cost-effective and are consistent with the Commission objective statement for the IRP. Utility DSM plans shall give attention to capturing lost opportunity resources. They include those cost effective energy efficiency savings that can only be realized during a narrow time period, such as in new construction, renovation, and in routine replacement of existing equipment.
22. The Commission realizes that the IRP process is dynamic and that modifications may be necessary over time. New issues may arise, existing issues or components of the plan may change in significance, and improved analysis techniques may be developed. As these occur, they will be evaluated for possible incorporation into the IRP process, or for separate consideration.
23. Each company must file with its next IRP, and henceforth, an explanation of the avoided cost methodology it utilized to derive such costs within the DSM evaluation process.
24. A DSM impact measurement process must be implemented by each utility in conjunction with the IRP process. Formal DSM impact measurement plans must be filed with the Commission. Such plans should be enhanced periodically by the utility, subject to Commission approval or as required by the Commission.

The DSM impact measurement plan should, subject to certain qualifications which are set forth within this item, seek to establish with reasonable confidence:

- a. The type and magnitude of the impacts of each DSM program or option; and

- b. The estimated effects expected to be achieved over the life of a program and the actual effects attributed to a program over a given time period should seek to rule out alternative explanations and factors such as weather, snap-back effects, free-riders, changing consumer tastes impacting usage under an option, errors resulting from modeling assumptions, technological and equipment changes, and any other such factor; and
- c. The durability of the actual impacts of the program over time, and
- d. The degree of market penetration of each option; and
- e. The cost-effectiveness of each option in achieving the impacts.

The Commission considers the reliability, credibility, and dependability of the DSM impacts and outcomes to be of paramount importance. However, the impact measurement plan need not evaluate each program with the same degree of rigor and effort. It is important in any measurement process that the costs of evaluation are balanced against the value of the information obtained. The value of the information depends in part on its bearing on decisions to be made and on the importance of the specific DSM option. The criteria for evaluating the importance of a DSM option includes such factors as the magnitude of the expected load shape impacts (KW, KWH), market potential, program costs, and the degree of uncertainty about these load shapes and the degree of market penetration.

In addition, the Commission strongly encourages the utilities to seek out opportunities to work together on DSM pilot projects in an effort to obtain information which could be beneficial to the parties in estimating DSM impacts for the purpose of evaluating such options while minimizing the costs of obtaining this information.

#### C. A SUMMATION OF THE RELATED COMPONENTS OF THE IRP PROCESS

Any DSM incentive procedures established for a utility are subject to periodic review and possible modification by the Commission.