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July 14, 2004

Ms. Blanca S. Bayó, Director
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2540 Shumard Oak Boulevard
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Re: Docket No. 020233-EI; Joint FMPA-Seminole Follow-Up Comments

Dear Ms. Bayó:

Pursuant to the instruction given at the June 30, 2004 Workshop, we enclose for filing, on behalf of Florida Municipal Power Agency ("FMPA") and Seminole Electric Cooperative, Inc. ("Seminole"), an original and fifteen copies of our Joint Follow-Up Comments. These Joint Comments explain our more technical concerns with the proposed ICF study.

In evaluating these Joint Comments (as well as those submitted by others), we urge the Commission to keep in mind the more general concerns with the study identified by FMPA and Seminole at the Workshop. These include:

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As discussed in the FMPA/Seminole joint comments filed in this proceeding on May 13 relating to the May 19 Market Design workshop. Seminole and FMPA do not believe that Florida is ready for an RTO with organized markets due to the extremely serious market power/market entry problems plaguing Florida. Instead, Florida is ready for implementation of a Basic (Day 1) RTO that would manage congestion using traditional cost-based methods, while providing the efficiency benefits arising from non-discriminatory transmission access, elimination of pancaked rates, and independent centralized planning. The ICF Study will not quantify the significant benefits of a Day 1 RTO - benefits that this Commission has already found to exist. Nor does the study propose to model the effect of the exercise of market power or market power mitigation rules in Day 2 RTO markets.

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- The key to a cost-benefit study being of any value is the base case; if the base case does not accurately portray what is happening in Florida, then the changes cases are meaningless. The ICF study assumes generation is scheduled on a regional centralized basis and uses various hurdle rates to attempt to model the inefficiencies in the current FRCC marketplace. It is unclear how these hurdle rates are being developed and whether they can truly reflect the actual market place with spot purchases based upon bilateral trades that are largely not transparent to the market place. The threshold question that must be answered is whether ICF can accurately model in its base case the manner in which LSEs serve load in Florida today. A better alternative would be “back-casting” (also called “post-casting”) rather than forecasting – *i.e.*, using actual historical data as the base case and model the centralized market based upon LMP pricing on the historical base case data.
- For the results of the study to be useful to the Commission and to the state’s Load Serving Entities (“LSEs”), it is essential for the results to be presented on an LSE-specific basis for all LSEs. For that reason, ICF’s proposal to disclose the study results on an LSE-specific basis only if an LSE separately contracts with and pays ICF additional sums is not an appropriate solution.

We hope these general concerns, as well as the specific technical concerns raised in the attachment, will enhance the Commission’s ability to direct production of a study that will be useful in assessing future policy directions.

Sincerely,

/s/ Cynthia S. Bogorad

Cynthia S. Bogorad
Attorney for FMPA

Attachment

cc: Parties of Record (via Exploder)

**Detailed Comments on GridFlorida Cost-Benefit Analysis
Submitted in Response to
Florida Public Service Commission Workshop
June 30, 2004
Docket No. 020233-EI**

The following comments are provided jointly by Seminole Electric Cooperative, Inc. ("Seminole") and Florida Municipal Power Agency ("FMPA") regarding the cost-benefit analysis being undertaken by ICF Consulting ("ICF") on behalf of GridFlorida, LLC and the Applicants in FPSC Docket No. 020233-EI. These comments have been developed following a review of two documents prepared by ICF entitled "Cost-Benefit Analysis of GridFlorida, Project Description" dated May 7, 2004, and "Cost-Benefit Study of the GridFlorida RTO, Draft Modeling Assumptions" dated June 17, 2004; discussions between ICF, the Applicants, and Stakeholders during the Cost Benefit Work Group meeting held June 22, 2004 at the FRCC offices; and presentations made by ICF at the FPSC Workshop held June 30, 2004.

Comments are arranged by major categories of discussion, as follows.

- A. Computation of costs and benefits;
- B. Consistency of cost-benefit study with current GridFlorida proposal;
- C. Challenges of modeling a physical, decentralized power market;
- D. Challenges of performing a long-term study;
- E. Quantifiable differences between market designs that are not captured by the cost-benefit study; and
- F. Issues that are not adequately addressed by the cost-benefit study but which could impact results.

Computation of Costs and Benefits

Background: ICF has yet to provide a detailed explanation on how it intends to compute changes in costs and benefits between the modeled cases. Without a firm understanding of the methodology to be used by ICF, it is difficult for FMPA and Seminole to effectively comment on the methodology and assumptions to be used for the study.

1. Documents provided thus far by ICF do not fully describe how it intends to measure incremental changes in costs between the Base and the Change Cases. We request that ICF provide a comprehensive description of the methodologies it intends to use when computing costs and benefits under each case, including a formulary description of inputs and outputs to the cost-benefit computation. We brought this issue to the attention of the Commission and ICF during the June 30, 2004 Workshop, and we understand that ICF intends to provide additional explanation during the next scheduled Cost Benefit Work Group meeting.
2. For the Base and Day 1 Cases, ICF has indicated that it will compute costs and benefits to serve load using modeled marginal clearing prices. ICF has also indicated that it intends to use zones when computing clearing prices, but ICF has not yet defined the zones or how zones will be used in the analysis. The Florida market today does not have a wholesale

market based on marginal clearing prices and, therefore, the use of marginal clearing prices to approximate the costs to serve loads or the value generating units could be misleading. The Florida market today operates predominantly as a cost-based market where loads are served at the average cost of generation and purchases for individual companies. As such, we recommend that total costs for generation under the Base and Change Cases be used when computing costs and benefits between the Base and Change Cases for GridFlorida, not marginal clearing prices. This method is more straight-forward and should produce more defensible and directly comparable cost-benefit results between cases. We brought this issue to the attention of the Commission and ICF during the June 30, 2004 Workshop, and, in discussion following the workshop, ICF indicated that it was amenable to this position, but we have not received a formal proposal on this issue as of the date of this document.

3. FMPA and Seminole are interested in the allocation of costs and benefits to individual LSEs and believe that the cost-benefit results for individual LSEs should be taken under consideration by the Florida Public Service Commission before issuing a final order in this Docket. As such, we request that the Applicants expand the scope of the ICF analysis to include evaluations of costs and benefits for each LSE under each evaluated case. When computing costs and benefits for individual LSEs, ICF should take into consideration incremental changes in costs for generation and costs to serve load, including factors such as assignment of generation and purchases to load; assignment and allocation of firm bilateral transactions; allocation of costs and benefits of economy transactions in the Base and Day 1 market designs; and allocation of congestion, marginal losses, and FTR revenue in the Day 2 market design (as discussed in more detail herein). We brought this issue to the attention of the Commission and ICF during the June 30, 2004 Workshop, and understand that ICF proposes to disclose the study results on an LSE-specific basis only if an LSE separately contracts with and pays ICF additional sums. ICF's proposal will not serve the Commission's purposes, however. For the results of the study to be useful to the Commission and to the state's LSEs, the results need to be presented on an LSE-specific basis for all LSEs, not just those who to contract with ICF.

Consistency of Cost-Benefit Study with GridFlorida Proposal

Background: ICF has proposed the modeling of a Day 2 market design that does not fully comport with the Applicants' current GridFlorida proposal. As such, the study results may not reflect costs and benefits that are applicable to the GridFlorida market design.

4. ICF is proposing to model marginal losses for the Day 2 market cases, but we are not aware that the Applicants are proposing marginal losses for the GridFlorida design. We request that ICF model the Day 2 market cases to be consistent with the market design currently proposed for GridFlorida. If marginal losses are to be modeled as part of the cost-benefit study, then because marginal losses are not part of the GridFlorida proposal, marginal losses should be modeled as a separate sensitivity case for each of the Day 2 configurations to allow for an assessment of the incremental impact that marginal losses might have on costs and benefits as compared to Day 2 configurations without marginal losses. Moreover, when computing

marginal losses, costs for losses are always over-collected (cumulative marginal losses exceeds average losses). As such, a mechanism is needed to adjust the cost of losses in the economic benefit calculations to “true-up” marginal losses to real losses. ICF has acknowledged that the issue exists, but it has not identified the method by which it will true-up losses. Additionally, when allocating marginal losses on an individual LSE basis, the specific determinant used to true-up marginal losses is quite important (e.g., load-ratio share, cost-ratio share, etc.). We request that ICF provide an explanation of how it intends to true-up marginal losses for any cases in which marginal losses are evaluated.

5. ICF is proposing to model a centralized market operating as a single control area under the Day 2 cases, but we are not aware that the Applicants are proposing elimination of individual control areas for the GridFlorida market design. If a Day 2 market is to be evaluated, then we request that ICF model the Day 2 market cases to be consistent with the market design currently proposed for GridFlorida. FMPA and Seminole support the evaluation of a centralized, single control area market design under a Day 2 configuration. However, because a single control area market design is not part of the GridFlorida proposal, this market design should be modeled as a separate sensitivity case for each of the Day 2 configurations to allow for an assessment of the incremental impact that single control area operations might have on costs and benefits as compared to Day 2 configurations operating with separate control areas.

Challenges of Modeling a Physical, Decentralized Power Market

Background: The primary challenge of the cost-benefit study is not in modeling the Day 2 market; instead, we believe that the primary challenge is to model the Base Case and Day 1 markets as decentralized, with each company individually meeting its needs and managing risks within an illiquid market that is not optimized for transmission system operation. Several changes in system operation and costs could transpire if Florida moves from a decentralized market structure to a centralized market structure. To project these changes, ICF has stated that it intends to use the GE-Maps network production simulation model and apply various rates and costs within the model to approximate market inefficiencies, with such rates and costs being derived from ICF experience and a GE-Maps benchmarking analysis of historical 2003 operations.

6. One of the principal limitations of the GE-Maps model is its inability to model control area operations. The GE-Maps model simulates network-based, centrally coordinated, Security Constrained Unit Commitment (“SCUC”) and Security Constrained Economic Dispatch (“SCED”) operation, but it is not designed to model independent control area operations like those anticipated for the Base and Day 1 Cases. As such, we recommend that ICF perform a post-cast analysis instead of a 13-year forecast. For a post-cast analysis, actual utility dispatch, operations, and costs for one or more historical years would form the Base Case results. The GE-Maps model could then be used to emulate Day 1 and Day 2 market operations for the same historical period as the Base Case. Modeled results would be compared to actual history to compute incremental changes in costs and benefits produced

through changes in market design. A post-cast analysis would also eliminate concerns regarding the need to forecast future economic and resource conditions (e.g., load, fuel costs, generation outages, generation capability, and transmission facilities). Computational effort required to perform a multi-year study would also be eliminated, allowing more attention to be directed to the analysis of alternative sensitivities and improving the rigor of the analysis.

7. Should ICF and the Applicants decline to produce a cost-benefit study derived from a post-cast analysis, then, at a minimum, we request that ICF apply the assumptions that it intends to use to model the Day 1 and Day 2 Cases to its 2003 benchmarking model and furnish the results for these “2003 Day 1” and “2003 Day 2” cases to the Stakeholders.
8. ICF has reported that it intends to use SCUC and SCED hurdle rates in the GE-Maps model to mimic the inefficiencies of control area generating unit commitment and dispatch. SCUC and SCED hurdle rates have been described by ICF as artificial wheeling charges that are applied to modeled power flows between interconnected control areas. ICF has stated that it will assign SCUC hurdle rates based on ICF experience with performing LMP market analyses in other regions of the country and will develop SCED hurdle rates based on a benchmarking analysis to actual 2003 operations. ICF has proposed to apply SCUC hurdle rates when modeling the Base and Day 1 Cases but eliminate their use when modeling the Day 2 Cases and has proposed to apply SCED hurdle rates when modeling the Base Case but eliminate their use when modeling the Day 1 and Day 2 Cases. Based on the discussion and descriptions provided by ICF, we believe that the values modeled for the SCUC and SCED hurdle rates will be critical study assumptions and that they will, in essence, produce the majority of the incremental costs and benefits reported by the study. Furthermore, we believe that control area commitment characteristics are unique to different market areas and that SCUC hurdle rate assumptions may not be as portable between regional models as is suggested by ICF. With these concerns in mind, we request that ICF make available all SCUC and SCED hurdle rate assumptions for review and comment by the Stakeholders prior to performing the final modeling runs for the cost-benefit study. Additionally, so that we may understand the effect that hurdle rates have on the cost-benefit results, we request that ICF perform comparative analyses that measure the incremental impact that SCUC and SCED hurdle rates will have on the cost-benefit results and provide these results to the Stakeholders for review and comment prior to performing the final modeling runs for the cost-benefit study. We request that ICF work with the Stakeholders to develop a series of sensitivity cases designed to model potential ranges of SCUC and SCED hurdle rates and to present the hurdle rate sensitivity case results to the Commission as part of cost-benefit study.
9. ICF has proposed to keep transmission losses constant between the Base and the Day 1 Cases. However, we believe that losses may be different under the Base and Day 1 Cases if generation commitment and dispatch are different between the cases. We request that ICF true-up transmission losses between the Base and Day 1 Cases to adjust for the modeled change in transmission system usage between cases.
10. Because the GE-Maps model performs a dispatch simulation every two hours and not instantaneously as in actual utility practice, we believe that operating reserve requirements

for regulation reserves should be added to the assumptions modeled for spinning reserves. We request that ICF model regulation reserves as an addition to spinning operating reserves for all Base and Change Cases. Furthermore, because some Stakeholders may procure all or a portion of their reliability reserves from other companies, we request that ICF work with the Stakeholders to assign the responsibility for reliability reserve requirements to the appropriate control areas.

11. ICF has stated that because the GE-Maps model does not perform an AC load flow as part of the algorithmic solution, it intends to model reliability must-run ("RMR") resources to approximate system requirements for voltage support.¹ As part of the data request for the study, ICF requested that individual Applicants and Stakeholders identify RMR resources and operating requirements within their respective control areas. We believe that the modeling of RMR resources can have a significant impact on the cost-benefit results (both on a total and locational basis). For instance, if too many RMR resources are committed and dispatched, incremental changes in costs and benefits between the modeled cases could be dampened. Modeling of RMR resources can also dampen or exaggerate locational prices within congested regions. Because modeling assumptions for RMR resources can have a significant impact on the cost-benefit results for the study, we request that ICF make available a comprehensive list of individual RMR resources and their operating requirements for review and comment by all Applicants and Stakeholders prior to performing the final modeling runs for the cost-benefit study. It may be important to note that under typical RTO/ISO operations, identification of RMR resources will not be treated as proprietary information.
12. ICF has stated that the GE-Maps model cannot model TLR-type relief of transmission congestion. Instead, the model will perform an economic dispatch (limited by SCUC and SCED hurdle rates) and transmission congestion will be controlled through the use of Overload Costs on individual transmission elements and modeled flow-gates and interfaces. As described by ICF, Overload Costs function in GE-Maps as hurdle rates applied to the modeling of generation re-dispatch in response to transmission congestion. If the costs of re-dispatch are more than the Overload Cost, then re-dispatch will not occur and the transmission system will be allowed to overload. As such, modeling of Overload Costs can impact cost-benefit results because use of these assumptions can result in lower operating levels for higher-cost generating resources and Overload Costs are not reflected in clearing prices. In actual practice, transmission system operators would permit overloading of individual transmission elements only for very limited periods and only under emergency conditions and generating resources would be re-dispatched to the greatest extent practicably possible, regardless of cost, to avoid overloading transmission facilities. We request that ICF make available all Overload Cost assumptions for review and comment by the Stakeholders prior to performing the final modeling runs for the cost-benefit study.

¹ RMR resources are generating resources that will be committed and dispatched in the model regardless of economic justification. RMR resources cannot set clearing prices, but their operation alters the commitment and dispatch of other resources, thereby affecting costs and benefits produced by the study.

13. ICF has proposed the modeling of pancaked transmission wheeling charges under the Base Case. However, FMPA and Seminole rely predominantly on network transmission service to deliver their generation output to load for areas that are not directly interconnected to their generation control areas. At the prompting of FMPA and Seminole, discussions have taken place with ICF regarding how the effects of network service can be modeled in GE-Maps so that FMPA and Seminole generating resources will not be unfairly disadvantaged by pancaked wheeling charges. In discussions held between Seminole and ICF, ICF has indicated that it cannot model network service in the GE-Maps model. Instead, ICF has stated that it will use hurdle rates to correct for distortions caused when pancaked wheeling charges are modeled for network service customers. Additionally, the Applicants have stated that they will be responsible for adjusting transmission wheeling charges projected by the GE-Maps model to remove any pancaking of transmission charges that should be assignable as network service charges when computing costs and benefits for the study. FMPA requests that ICF continue discussions regarding the treatment of network transmission service as it applies to the specific conditions of FMPA so that ICF may understand how best to adjust the GE-Maps model to mimic FMPA operations under network service. We request that ICF provide an accounting of the specific hurdle rate assumptions that it will use to adjust for network service operation and provide these results to the Stakeholders for review and comment prior to performing the final modeling runs for the cost-benefit study. Furthermore, we request that the Applicants provide a description of the methodology they intend to use for adjusting transmission wheeling charges.

Challenges of Performing a Long-Term Study

Background: ICF has proposed a 13-year study to capture the phased implementation of GridFlorida operations, with Day 1 operation beginning in 2004 and Day 2 operation beginning in 2007. Certain assumptions necessary for long-term modeling require careful scrutiny to assure reasonableness and consistency in assumptions. Moreover, some assumptions cannot be practicability projected for long-term periods.

14. Certain assumptions, such as generation expansion plans, transmission upgrades and expansion, load growth and its corresponding impact on the transmission network configuration, and unit commitment and dispatch patterns, will all be critical inputs to the study, but all are highly uncertain beyond a near-term planning horizon. Small changes in these assumptions could have significant impacts on the long-term results produced by the cost-benefit study. Further, we understand that the transmission network that will be modeled for the cost-benefit study will reflect only those changes necessary for direct interconnection of new generating units, and not necessarily to assure network delivery (see also, item #19). As such, if ICF and the Applicants are to perform a long-term study instead of a post-cast analysis, we request that the cost-benefit study period not extend beyond 2009 (a period of time that can be reasonably studied without the need to model significant changes to the transmission grid).

15. ICF has stated that it intends to maintain constant SCUC and SCED hurdle rates over the cost-benefit modeling study period. However, we believe that the operating inefficiencies that these rates are intended to approximate are likely to change over time with growth in load, additions of generating units, and transmission upgrades. For instance, the addition of new generating units will change control area unit commitment patterns from those experienced historically. We request that ICF explain and offer for review and comment by the Stakeholders what assumptions it intends to make to address the need for changing hurdle rates over the study period, or in the converse, explain why it has not made changes to hurdle rates over the study period.
16. Similar to the issue raised in item #9 for trueing-up losses between the Base and Day 1 Cases, ICF is proposing to keep transmission losses constant over the study period at rates currently established by the GridFlorida utilities. However, we believe that transmission losses can be expected to change over time with growth in load and the addition of new generating resources and transmission facilities. We request that ICF true-up transmission losses over the study period to adjust for modeled changes in transmission system usage over time.
17. ICF has stated that it intends to maintain RMR resources as constant assumptions over the study period. However, we believe that requirements for RMR resources could change over time with the addition of new generating units and transmission system upgrades and growth in load. We request that ICF explain and offer for review and comment by the Stakeholders what assumptions it intends to make to address changing needs for RMR resources over the study period, or in the converse, explain why it has not made changes to RMR resources over the study period.
18. ICF has stated that it intends to rely upon generation and transmission expansion plans for 2004 through 2016 supplied individually by each of the Applicants and Stakeholders. Portions of these plans are uncertain, are based on different economic assumptions, have not been coordinated, may not reflect the most cost-efficient expansion plans for GridFlorida, and may not be optimized for efficient utilization of the transmission grid. We request that ICF supply a summary of the initial plans filled by the Applicants and Stakeholders and the final consolidated resource plan for the GridFlorida market to be used for the cost-benefit study that reflects any changes introduced by ICF or the Applicants and offer the consolidated plan for review and comment by the Stakeholders prior to performing any modeling runs for the cost-benefit study.
19. ICF has stated that it intends to rely upon load-flow studies performed by the Applicants that reflect transmission facility upgrades required to interconnect modeled generation additions. However, it is not clear whether the modeled transmission upgrades would be sufficient to cause each generation addition to satisfy either a control-area or a GridFlorida deliverability test (i.e., consistent with network resource interconnection service under FERC Order 2003). Modeling generating unit additions that do not pass a deliverability test could cause a significant increase in congestion and could impact costs and benefits computed under the study. We recognize the significant level of effort required to perform a deliverability test

for each modeled generation addition and to identify transmission upgrades or alternative generation plans necessary to alleviate congestion problems. However, we are also mindful of the sensitivity of the cost-benefit analysis to assumptions regarding generation siting and transmission upgrades. Therefore, to allow for a review of the potential impact that generation siting and transmission upgrades might have on the cost-benefit study, we request that for each monitored flowgate or transmission element that reaches its limit 5% of the time or more in a year, that ICF provide for review by the Stakeholders: (i) the average shadow price² during the periods when the flowgate or element is at its limit, and (ii) the percent of time during the year that the flowgate or element is at its limit.

- 20 We request that ICF review long-term economic and fuel assumptions provided by the Applicants and Stakeholders and provide summary evidence to the Stakeholders and Applicants that the underlying assumptions are consistent between and among the entities. For instance, ICF has stated that it will use coal fuel prices as provided by the Applicants and Stakeholders without revision, even though few entities have coal contracts covering 100% of their coal fuel use through the end of the study period. These open contract positions will likely be filled with similarly priced coal purchases and contracts, resulting in uniform coal prices for all entities by the end of the study period.

Quantifiable Differences between Cases That Will Not be Captured by the Cost-Benefit Study

Background: The following issues could result in quantifiable costs and benefits attributable to a Day 1 and/or Day 2 market design, but are either not addressed by the proposed ICF cost-benefit study or have been specifically eliminated from consideration by ICF or the Applicants.

21. Based on documents provided by and discussion with ICF, it is not clear how the effects of bilateral transactions will be reflected in the cost-benefit study. ICF has stated that it intends to model “Must Take” contracts using constant assumptions applied across all cases, but it has also indicated that the Must Take contracts are intended only to model QF-type contracts. Self-schedule, bilateral transactions will impact generation commitment and dispatch of both the buying and selling entities. However, based on discussion that Seminole has had with ICF, we understand that ICF may not be modeling all bilateral contracts within the cost-benefit study. We request that ICF identify all bilateral contracts that it intends to model in the cost-benefit study and provide a list of the contracts for review by the Stakeholders prior to performing any modeling runs for the cost-benefit study. If ICF maintains that certain contracts can not be modeled, then we request that ICF provide an explanation as to why this is true, describe the potential impacts to the cost-benefit study caused by not modeling the

² The shadow price for a transmission element or flowgate is a measure of the marginal economic value of an upgrade to the element or flowgate. Shadow prices are regularly used in the operation and evaluation of electric markets and it is a common diagnostic output from network models such as GE-Maps. The shadow price is computed as the change in the total cost of dispatch for a one megawatt increase in the capability of the transmission element or flowgate per incremental unit of time (e.g., hour) and is computed only for the periods of time when the transmission element or flowgate is at its limit.

contracts, and describe what adjustments will be made when computing individual LSE costs and benefits to appropriately account for the omitted contracts.

22. Under the Day 2 market analysis, ICF has proposed an evaluation of costs and benefits to serve load using the pure energy component of the LMP. If LMP prices are to be used in the cost-benefit analysis, then the definition of a reference bus is crucial to this analysis. The LMP can be decomposed into an energy price, a congestion cost, and a loss cost (if marginal losses are to be modeled) in comparison to another bus that is treated as a common reference bus for all LMP price decompositions. When comparing LMPs at two buses (for instance, when computing the basis differential between a generator and a load bus) the price at the reference bus is canceled from the calculation. However, when calculating a cost to serve load, there is no comparison between buses, rather it is an absolute, e.g., the load times the zonal LMP, including costs for congestion and losses relative to the reference bus. Moreover, congestion costs can be mitigated through FTRs, but FTRs must first be defined and then allocated to each individual LSE to appropriately account for congestion in the cost to serve load. Given these issues, it is apparent that the definition of the reference bus will dramatically impact the results of the costs to serve load. We have previously addressed this issue with ICF during the June 22, 2004 Cost Benefit Work Group meeting and through subsequent email correspondence, but we have not yet received confirmation from ICF regarding how it intends to address this issue in the cost-benefit analysis. We request that ICF provide the Stakeholders with a comprehensive description on how it intends to define and use the reference bus for cost-benefit calculations.
23. In today's market, it is common for transactions to be scheduled in multiple directions, with losses and wheeling charges applied to each separate transaction. The actual flow of power on the transmission network reflects a resultant flow, where transactions in opposing directions are cancelled. ICF has stated that the GE-Maps model cannot simulate losses and wheeling charges associated with individual transactions and, instead, simulates losses and wheeling charges only on the net, or resultant, flow of power. As such, ICF may not be able to allocate losses and wheeling to individual LSEs. We request that ICF provide a comprehensive description of the methodologies it intends to use to allocate losses and wheeling charges when computing costs and benefits for individual LSEs.

Issues That Are Not Adequately Addressed by the Cost-Benefit Study but Which Could Impact Results

Background: The following general issues could affect the outcome of the ICF cost-benefit analysis but have not been proposed for inclusion in the analysis. We request that ICF either model the issues listed below or provide a quantified approximation of their effect on costs and benefits, or if neither of these options are possible, we request that ICF provide an explanation as to why an issue cannot be addressed in the cost-benefit study and indicate how cost-benefit result might change if such issue were to be modeled.

- Potential impacts of market power abuse (the variable cost-based dispatch analysis proposed by ICF assumes perfect competition and a complete lack of market power; assumptions that are at odds with the reality of the current Florida market).
- Bid-based modeling of the Day 2 market (could produce results that are different than the ICF study's proposed marginal cost-based model).
- Efficient siting of transmission and generation facilities in a centrally coordinated market.
- Modeling of non-conforming loads (i.e., loads that do not conform to the system average load shape, such as, industrial loads, agricultural loads, etc.).
- Allocation of direct load control and interruptible load capability to appropriate industrial entities and nodes (instead of a uniform allocation as proposed by ICF).
- Use of multiple iterations to model random generation outages (ICF is proposing use of a single iteration, which does not provide a statistically significant sample, and, therefore, could skew results).
- Scenario analyses should be used to model inputs for uncertain assumptions such as: fuel prices, load growth, macro economic conditions, and generation technology.